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## Measures of Growth: Performance Measures and Benchmarks to Achieve Maine's Long-Term Economic Goals

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# MEASURES OF GROWTH



1999

*Performance Measures and Benchmarks  
to Achieve Maine's Long-Term Economic Goals*

**FIFTH**  
REPORT OF THE MAINE ECONOMIC GROWTH COUNCIL

Prepared by the  
MAINE DEVELOPMENT FOUNDATION

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## KEY TO SYMBOLS AND GRAPH COLORS

### GOLD STARS & RED FLAGS

Determining which performance measures receive gold stars and red flags are judgment decisions 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:



**GOLD STAR** – Exceptional performance. Very high national standing and/or an established trend toward dramatic improvement.



**RED FLAG** – Needs attention. Very low national standing and/or an established trend toward dramatic decline. In some cases there is improvement but it is still viewed as needing attention.

### ARROWS

Determining the direction of the arrow for each performance measure is done by objectively reviewing the data. The arrow directions simply reflect movement toward or away from the benchmark since the last time new data was available. Criteria are as follows:



**UP ARROW** – We have moved toward the benchmark since last available data.



**DOWN ARROW** – We have moved away from the benchmark since last available data.



**HORIZONTAL ARROW** – No significant movement either way since last available data. (In instances of survey data, “significant” is defined as at least three percentage points.)



**NO ARROW** – No new data available since *Measures of Growth*, 1998.

### ON THE GRAPHS

Except where otherwise stated, all data presented are for Maine.

The vertical line separating the two background colors represents the year we started benchmarking. It is the baseline year referred to in the benchmark

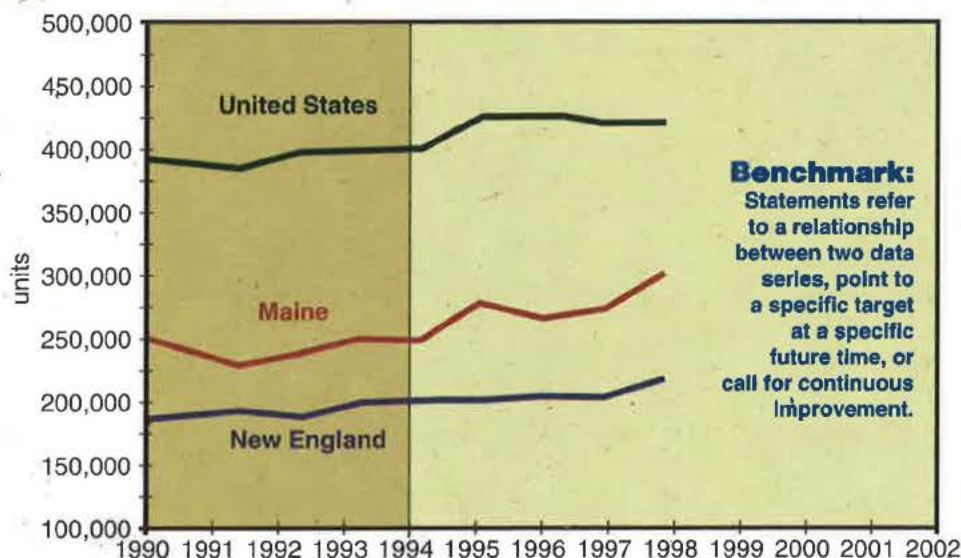
statement. Where we have no data prior to the baseline year, those graphs have just one background color.

**Maine data is always shown in this color.**

**New England data is always shown in this color.**

**United States data is always shown in this color.**

Sample Graph





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## VISION

Our vision is a high quality of life for Maine citizens.

Central to this vision is a sustainable economy that offers an opportunity for everyone to have rewarding employment and for businesses to prosper, now and in the future.

The people of Maine bring this vision into reality by working together and building on our tradition of hard work, dedication, and Yankee ingenuity.

## GOALS

### INNOVATIVE BUSINESSES

Maine businesses will be world leaders in innovating new products, new markets, new companies; and will use innovative approaches for workplace health and safety.

### SKILLED AND EDUCATED WORKERS

Maine workers will be among the highest skilled in the U.S., with the best capacity to use existing and emerging technologies and respond to rapidly changing workplaces and markets.

Maine workers will be lifelong learners, with access to integrated education and training opportunities in the public and private sectors.

### VITAL COMMUNITIES

Among Maine families and regions, disparities in income and opportunity will be continually reduced.

Maine's civic infrastructure will be continually enhanced by increasing participation in and cooperation among governments, voluntary organizations, and neighborhood groups.

Maine citizens will have ever-increasing and equal opportunity for employment, advancement, and an adequate standard of living.

Maine will be nationally recognized as a place that is healthy, safe, and rich in arts and culture.

### EFFICIENT GOVERNMENT

Maine state and local government services will be known for their high quality and reasonable cost. Where regulation is necessary, Maine will be known for the timeliness with which regulatory decisions are made, and for flexibility in achieving public purposes.

Maine's state and local tax systems will be broad-based, generate stable and predictable revenues, yet not impose burdens that place Maine at a competitive disadvantage.

### STATE-OF-THE-ART INFRASTRUCTURE

Maine's transportation and telecommunications infrastructure will support economic growth by being modern and continually improved.

All Maine consumers will have access to a wide range of energy sources at prices competitive nationally and regionally.

### HEALTHY NATURAL RESOURCES

Maine will continue to improve the quality and optimize the use of its renewable natural resources to promote sustainable economic development.

Maine will increase niche marketing, recreational opportunities, and value-added approaches for better utilization and conservation of natural resources.



To achieve our vision of long-term economic growth, we work toward 13 goals in 7 areas. To measure our progress, we monitor 56 performance measures and set a benchmark for each. Here is a brief overview of Maine's recent progress.

Four benchmarks were achieved in 1998: 17 - *Employer-Sponsored Training*, 32 - *Infant Mortality*, 40 - *Condition of Roads*, and 50 - *Industrial Use of Toxic Chemicals*. Overall, Maine made positive progress on 24 of the 56 performance measures and held steady on 11 others. And this year the Growth Council awarded 5 gold stars to performance measures on which we are doing exceptionally well.

On the other hand, Maine's standing worsened on 13 of the 56 performance measures. The Growth Council assigned 4 red flags to performance measures that particularly need attention.

For 8 of the performance measures in this year's report, there is no new data over last year's *Measures of Growth* report.

### FUNDAMENTALLY

The state economy is growing at a moderate pace as evidenced by increases in gross state product and employment, although slower than the New England economy. The wealth of Maine's people, as measured by personal income, is holding steady relative to all other states in the nation but is among the poorest third of all states nationally.

### INNOVATIVE BUSINESSES

New business development is very promising. Maine entrepreneurs have been starting new businesses at a much faster pace than across New England as a whole and furthermore, our national standing on job growth among new businesses continues to improve. Other promising signs include the steady increase in productivity of manufacturing workers and dramatic increases in international exports. Signs of concern include our continuing low standing on technology resources and a recent drop in the number of businesses that introduced new products or services in the past year.

### SKILLED AND EDUCATED WORKERS

A higher percentage of people have a high school education in Maine than in most other states. However, it is believed that higher degrees will be required for jobs of the future and Maine's population is seriously lacking in attainment of bachelor's and graduate degrees. Furthermore, survey data show that business opinion of Maine's colleges and universities slipped this year. While overall participation in lifelong learning is not improving among Maine people, there was a significant increase in employer-sponsored training.

### VITAL COMMUNITIES

Maine continues to experience many disparities among our people. The gap between Maine's wealthiest and poorest counties

widened this year, continuing a long-term trend, and in general, employment growth is not occurring in those counties where it's needed most. Other troubling disparities include the widening gap between rich and poor people, and income levels between men and women, although that gap seems to be steadily closing. Looking at a new performance measure added this year, our service center communities are steadily losing residents to more rural areas.

There are several indicators to suggest that Maine has exceptional quality of life, and it's improving. By the last available comparison, Maine has the lowest infant mortality rate in the country, a broad indicator of our health. And cigarette smoking among young adults decreased significantly. Crime is also down. Although people continue to participate in volunteer activities, business participation has fallen off.

Artistic and cultural activity in Maine appears to be slipping relative to New Hampshire and Vermont, another new performance measure this year. And we continue to not have enough jobs that pay a liveable wage.

### EFFICIENT GOVERNMENT

Government efficiency appears to be holding steady by most measures. Citizen and business opinion of the value of state services remains relatively low, just as it has since we began monitoring. Although state and local tax burden in Maine is higher than across most of New England, the gap closed slightly as it did in the previous two years. Maine's national rank on tax fairness and balanced revenue and fiscal stability remained unchanged.

### STATE-OF-THE-ART INFRASTRUCTURE

By our general performance measures, Maine's roads and bridges are steadily improving.

Telecommunications infrastructure continues to be more and more important to Maine businesses. While the cost of electricity rose slightly, it rose by about the same amount across the country as a whole.

### HEALTHY NATURAL RESOURCES

Lake water quality slipped slightly, although marine water quality continues to improve. Industrial use of toxins has decreased significantly. We continue to increase the amount of land in conservation.

There are some good indicators that the forest products industry is remaining healthy and vibrant. The number of paper and lumber jobs has increased and we are adding value to forest products at a faster pace than the nation as a whole. Tourism jobs are also on the increase.

Of concern are indicators that commercial fishing and agriculture are in decline.



## BACKGROUND

The Growth Council began its work in 1993, established in statute by the governor and legislature, by setting forth a vision and goals for the state's long-term economic growth. Hundreds of people were involved from government, education, business, labor, the environment and economic development. From a vast array of recommendations, the Growth Council chose 13 goals and about 50 performance measures by which to continually assess the state's progress toward achieving those goals. The Growth Council has held workshops and focus groups, and has solicited advice from experts and the state's leaders.

Since then the Growth Council has published five annual reports. Several state agencies have formally incorporated goals and benchmarks of the Growth Council into their own strategic plans. Nonprofits have initiated programs directly aimed at accomplishing specific benchmarks. Government officials have waved *Measures of Growth* while speaking of the need to achieve the goals. Teachers have incorporated the substance of the reports into their curricula. Policy development forums have used the benchmarks as springboards for meaningful discussion. Businesses have pledged financial resources and other forms of support to the effort. Furthermore, the Growth Council's work is receiving increasing recognition from community groups and other states as a model for establishing a vision, goals, and measurable objectives. *Measures of Growth, 1998* won a national Best of Class award from the American Economic Development Council.

The Growth Council strives to be accurate, nonpartisan, and objective, with a healthy dose of straightforward common sense. The Growth Council does not advocate specific strategies to accomplish the benchmarks. Its mission all along has been to identify what's important to Maine and to say how Maine is performing.

The result is a framework of generally accepted goals and benchmarks which collectively form a blueprint for action, statements of where Maine stands on those issues that are most crucial to our future economic prosperity, and an accurate look at 56 trends that tell us where Maine is heading.

## CHARACTERISTICS OF THE GROWTH COUNCIL'S WORK

**BASIC TERMS** The **vision** statement is the focus of all the work. Achieving it is the reason for economic growth and development. In order to give the vision meaning, **goals** have been developed for six key areas of the economy. One or more **performance measures** have been developed for each goal. These measures are specifically defined data sets that are used to measure progress toward achieving the goals. They are not perfect measures, but they are indicators of progress. We can look at them and see where Maine is today relative to the goals. For each performance measure, there is a **benchmark**: a target of where we would like

to be at a specific time in the future.

**LONG VIEW — BROAD DEFINITION OF THE ECONOMY** In keeping with its legislative mandate, the report takes the long view, 8–15 years, and defines the economy broadly: *Innovative Businesses, Skilled and Educated Workers, Vital Communities, Efficient Government, State-of-the-Art Infrastructure, and Healthy Natural Resources.*

**MULTI-STAKEHOLDER APPROACH** This report is not just a business agenda, an environmental agenda, or a state government agenda. Rather, it is a broad-based agenda for economic growth. The Growth Council has tried hard to reach out to numerous organizations that have a stake in Maine's economic future, and their opinions are reflected in this work.

**ALL GOALS AND BENCHMARKS INTERRELATED** Individual performance measures do not stand alone. It is erroneous to judge progress toward a goal based on any single performance measure in isolation, or progress toward the vision based on any one goal. The Maine economy is incredibly complex; no single indicator can adequately measure its entire health. One needs to step back and make a summary judgment viewing the big picture of all goals and measures.

**ONE OF SEVERAL MAINE INITIATIVES** There are other significant Maine initiatives to guide economic growth, although *Measures of Growth, 1999* is one of the most comprehensive. The work of the Maine Chamber and Business Alliance, the Maine Science and Technology Foundation, and the state of Maine's Economic Development Strategy are closely linked to the Growth Council's work, as are several other efforts in the state.

**WORK IN PROGRESS** We are beginning to assemble data now so that in future years we will be able to see long-term trends. The work of the Growth Council is a work in progress because the economy is dynamic, and we are always attempting to better understand changing trends.

**USING THE REPORT** State legislators may use this report to guide their policy decisions; economic development leaders may use this report to focus special attention on local priorities; business leaders may use this report to set priorities. All Maine people may look to the benchmarks as a way to evaluate how we are doing as a whole at improving the economy and moving toward our long-term vision.

## THE DATA

Unlike many other efforts of this type, the Growth Council has not prescribed a strict format to which all our measures and benchmarks must adhere. Some of our measures compare Maine with New England, some rank Maine nationally. Most look at Maine's own history on an issue with no other comparisons. In almost every case, however, there is something to which the reader can compare this year's mark.



The data in this report come from a wide variety of sources, primarily (1) federal agencies (a fair amount via the World Wide Web; see the Maine Development Foundation website for links), (2) state agencies, and (3) our own surveys. The timeliness of the data varies considerably, but in each case we have tried to present the most recent data available.

Eleven of the performance measures rely entirely on data generated by the Maine Development Foundation Annual Surveys of Maine Businesses and Citizens. These surveys are statewide and were conducted in October, 1995, 1996, 1997, and 1998, and the methodologies from year to year were very similar. In 1998, the citizen survey was done via telephone interviews with 600 randomly selected citizens and has a sampling error of +/- 4% with 95% confidence. The business survey was a written instrument sent to a stratified random sample of Maine businesses, completed by 545 of them, and has a sampling error of +/- 8%.

## CHANGES FROM LAST YEAR

We strive to keep changes to a minimum, but this needs to be balanced with (1) our desire to stay current with emerging issues, (2) our desire to continuously improve the accuracy of our reporting, and (3) our desire to make the data ever more accessible and easy to understand. Changes in content are occasionally made to reflect emerging issues and shifting priorities of our state, and these changes are always broadly supported. Changes in methodology are made sparingly, and only for the purpose of improving the integrity of our work. Changes in presentation are made simply to make the work more understandable.

### CONTENT CHANGES

This year the Growth Council added two performance measures, revised slightly one of the goal statements, and revised five benchmarks (targets).

Recognizing the importance of recent findings by the State Planning Office, the Growth Council has added *19 - Population of Service Center Communities*. This measure reflects migration trends from urban to rural areas and calls for a benchmark to reverse the current trend. The performance measure, more than most, touches on several issues including community vitality, efficient government, and healthy natural resources.

In response to widespread and tenable suggestions from the arts and humanities community, the Growth Council has added *31 - Arts and Culture Expenditures*. In addition, one of the vital communities goals has been revised to address arts and culture. These changes reflect the fact that artistic and cultural activities are important to long-term economic growth.

In the four instances where previously set benchmarks were achieved, the Council established new benchmarks calling for continuous improvement. The only other instance of benchmark adjustment is in the case of *13 - Bachelor's Degree Attainment*.

Having looked at this issue closely now for four years, it became overwhelmingly apparent that the benchmark initially established was simply unattainable, so in its place a more realistic benchmark has been established.

### METHODOLOGY CHANGES

The most substantive and thorny change this year is the methodology used to calculate the percentage of liveable wage jobs. Simply put, the data set upon which we were relying is no longer continued and the new data set we have decided to use, although technically better, yields a significantly different result. We have considerable faith in the percentage of liveable wage jobs reported in this publication. That the figure doesn't match very well with previous publications suggests that our previous methodology was lacking, although it was the best available at the time.

The only other methodology changes have to do with using the Current Population Survey data of the US Census Bureau rather than the actual decennial Census of the Population for performance measures 11 and 13, High School Diplomas and Bachelor's Degree Attainment respectively. This was done so that we are examining much more current and regular data, although unlike the decennial census, it is estimated based on sample surveys.

### PRESENTATION CHANGES

In four instances where Maine data are compared to some other reference of much larger magnitude, we have provided an indexed comparison rather than an annual growth comparison as we have in years past. The reason for this is that the indexed comparison provides a much better visual representation of how the two trends compare. We have done this in the following cases: *1 - Gross State Product*, *4 - New Business Starts*, *7 - International Exports*, and *51 - Paper and Lumber Value Added*.

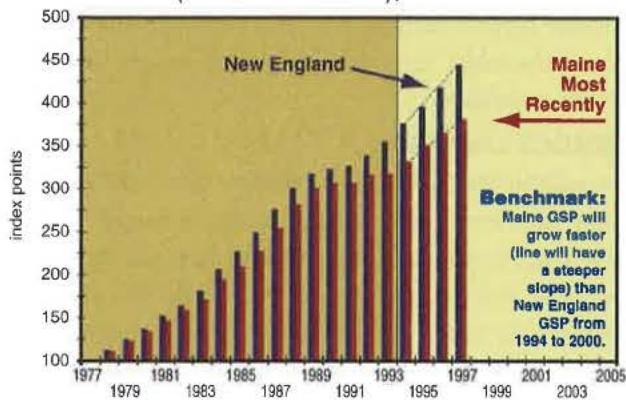
We changed *10 - On-the-Job Injuries* from a line graph to a column graph to make it more readable, and we changed the y-scale of *46 - Water Quality of Lakes* to better profile small changes from year to year. We also changed the x-scale of *5 - Job Growth Among New Businesses* to more accurately reflect the years that the data were collected, rather than the years they were published in a secondary source, which is how they were presented in years past.

## ON THE WORLD WIDE WEB

This entire report is available on the World Wide Web, in HTML for easy viewing and in PDF for easy downloading and printing. There are also links to data sources, previous reports of the Maine Economic Growth Council, four years of survey data, and other information. Visit the Maine Economic Growth Council via the homepage of the Maine Development Foundation at <http://www.mdf.org>



Gross State Product, Maine and New England  
(Indexed from 1977), 1977-1997



Data Source: US Bureau of Economic Analysis, September 1998.

## 1 GROSS STATE PRODUCT

**Benchmark:** Maine's gross state product will grow faster than New England's, on average, between 1994 and 2000.

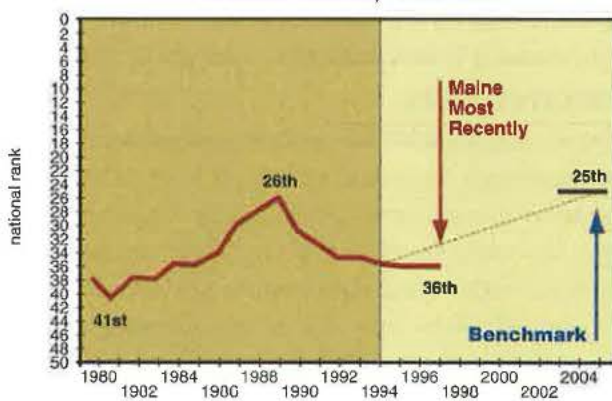
**Maine Economy Growing Slower than New England** In 1997, Maine's gross state product was estimated to be \$30.2 billion, up 4.52% from 1996. During the same time period, the New England economy grew 6.57%. The Maine economy accounts for about 6.5% of New England's economy.

Since the Maine Economic Growth Council began tracking this performance measure in 1994, the New England economy has grown 18.6% whereas the Maine economy has grown at a slightly slower pace of 15.1%.

Gross state product 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 gross state product.

The 1997 data for Maine and New England are estimated. For ease of comparison, the graph shows Maine and New England data indexed to 1977, whereby 1977 values were equalized to 100. This is a change from the way the data were presented in *Measures of Growth, 1998*.

National Rank on per Capita  
Personal Income, 1980-1997



Data Source: US Bureau of Economic Analysis, April, 1998.

## 2 PERSONAL INCOME

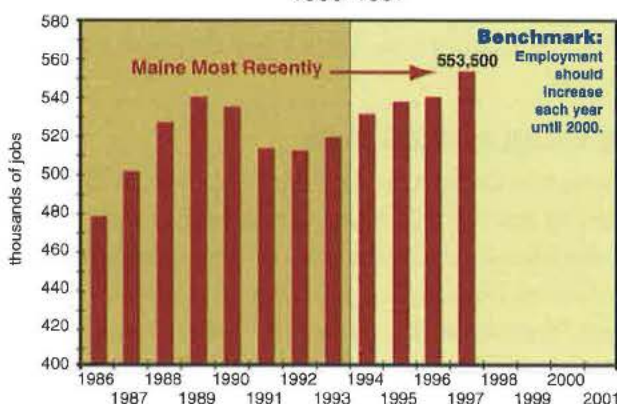
**Benchmark:** Maine's national rank among the 50 states on per capita income will improve from 36th in 1994 to 25th by 2005.

**Income Growing While National Rank Holds Steady** Although Maine's per capita income increased in 1997, its national rank relative to other states held steady at 36th.

In 1997, Maine's income per capita (total income earned in the state divided by the state's population) was \$21,928 compared to the New England average of \$30,440 and the United States average of \$25,298. From 1996 to 1997, per capita income in Maine grew by just over 6% while per capita income for the US as a whole grew 5.6% and per capita income across New England grew 7.3%. Income is derived from wages and salaries but it comes from other sources as well such as returns on investments and transfer payments from government.

In 1997, the US Bureau of Economic Analysis revised data for previous years.

Employment (Non-Farm Wage and Salary),  
1986-1997



Data Source: Maine Department of Labor, Division of Labor Market Information Services in cooperation with the US Bureau of Labor Statistics.

## 3 EMPLOYMENT

**Benchmark:** The number of jobs held by Maine people will increase, from 531,600 in 1994, each year until 2000.

**Employment Continues to Grow** For each of the past five years, the number of jobs in Maine has increased, growing an average of 1.6% per year. From 1996 to 1997, employment in Maine grew 2% while employment in New England as a whole grew 2.4%. In Maine, business services and social services have added the most jobs recently, while public sector employment remains unchanged and the manufacturing sector continues to experience employment decline (down .9% from 1996 to 1997).

These figures represent all full- and part-time annual average employment, but do not include farm workers or self-employed people. This is an indicator of the number of jobs in Maine, unlike the unemployment rate, which is an indicator of how many people are seeking employment.



## 4 NEW BUSINESS STARTS



**Benchmark:** Maine's rate of annual growth in number of new businesses started will outpace the New England rate from 1994 to 2000.

### Maine New Business Starts Dramatically Outpacing New England

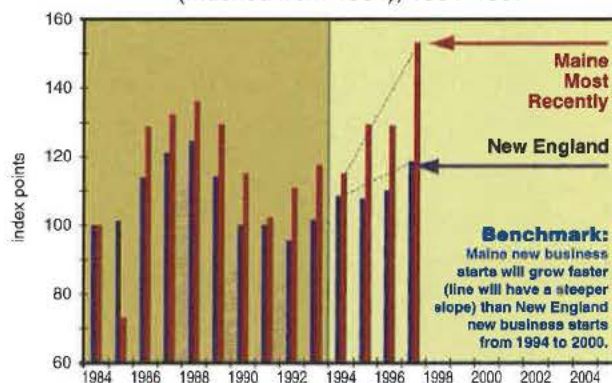
From 1996 to 1997, the number of new businesses started in Maine went from 4,461 to 5,297, a significant increase of almost 19%. For the same period, the number of new businesses started throughout New England increased by 7.96%.

This performance measure is an indicator of the availability of investment capital and the extent to which people perceive economic opportunities.

The measure itself does not consider 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 started that have at least one employee other than the owner.

For ease of comparison, the graph shows Maine and New England data indexed to 1984, whereby 1984 values were equalized to 100. This is a change from the way the data were presented in *Measures of Growth, 1998*.

New Business Starts, Maine and New England  
(Indexed from 1984), 1984-1997



Data Source: US Small Business Administration, Office of Advocacy.

## 5 JOB GROWTH AMONG NEW BUSINESSES



**Benchmark:** Maine's national rank among the 50 states on job growth among new businesses will improve from 49th in 1993 to 31st by 2000.

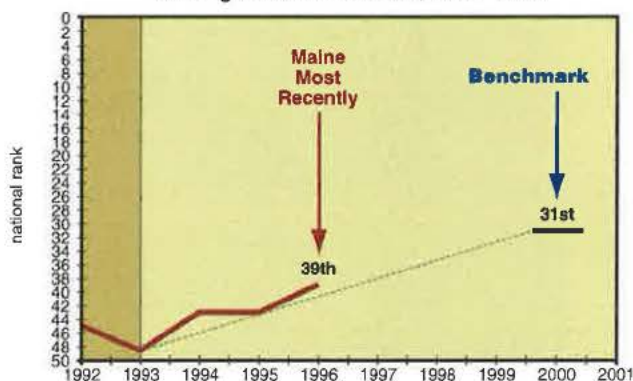
**Steady Improvement Despite Low National Standing** From 1996 to 1997, Maine's national rank in job growth relative to other states improved from 43rd to 39th.

This measure is a good indicator of the extent to which new businesses are sustaining themselves, growing, and contributing positively to the economy. It is also an indicator of increased financing available from banks and public lenders.

A long-term growth economy requires not only that an increasing number of new businesses get started each year, but that they stay in business and actually add jobs.

This measure ranks Maine among the 50 states in terms of the number of jobs added in businesses that are less than five years old. The presentation of this data has changed from last year's *Measures of Growth* in that the x-axis has been shifted to more accurately mirror the years that the data were collected rather than the years that the data were published. The benchmark has been appropriately revised to reflect this technical change.

National Rank on Job Growth  
Among New Businesses, 1992-1996



Data Source: Corporation for Enterprise Development, *Development Report Card for the States, 1998*.

## 6 NEW PRODUCTS OR SERVICES



**Benchmark:** The percentage of Maine businesses that develop new products or services each year will improve from 44% in 1995 to 70% by 2000.

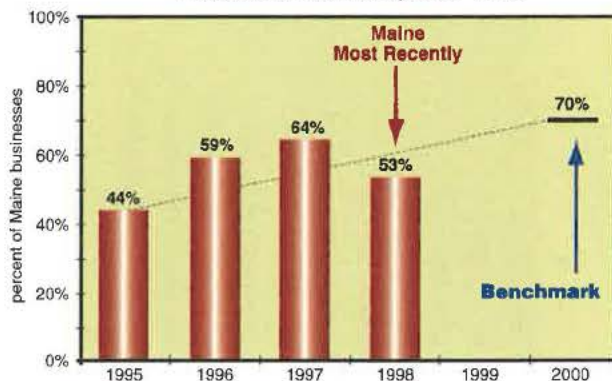
**Previous Positive Trend Reverses** In 1998, 53% of Maine businesses reported that they developed new products or services, a decrease from 64% in 1997.

This performance measure has declined for the first time since the Maine Economic Growth Council began tracking it in 1995.

This measure is an important indicator of how well existing Maine businesses are competing and adapting to new customer needs and managing economic pressures.

Maine business leaders were asked: "Over the past 12 months, did your company develop new products or services that are consistent with your core business?" The data above reflect the percentage that responded "yes."

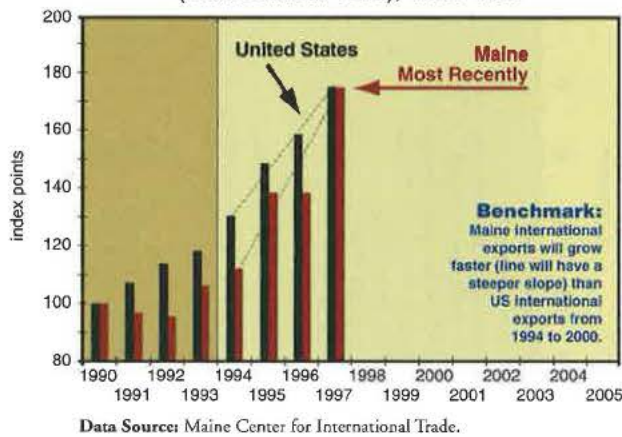
Percentage of Businesses with New  
Products or Services, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Businesses, 1995-1998.



International Exports, Maine and United States  
(Indexed from 1990), 1990-1997



## 7 INTERNATIONAL EXPORTS

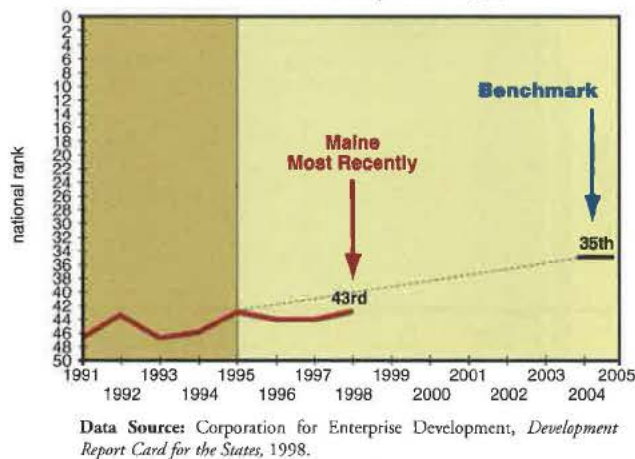
**Benchmark:** The value of Maine's international exports will grow faster, on average, than the growth in value of US international exports from 1994 to 2005.

**Exports Increase Dramatically from 1996 to 1997** In 1997, Maine companies exported \$1.88 billion worth of product, a significant increase of 26.5% over 1996. This was the 6th largest annual growth of all states. During the same period, US exports increased by 10.4%.

In 1997, Maine companies exported \$645 million worth of product to Canada, \$248 million worth of product to Malaysia, and almost \$180 million worth of product to Singapore. Sixty-five percent of all Maine exports were in the following five industries: semiconductors, paper products, seafood, leather, and textiles.

These data represent the value of products exported to other countries, but exclude services. For ease of comparison, the graph shows Maine and United States data indexed to 1990, whereby 1990 values were equalized to 100. This is a change from the way the data were presented in *Measures of Growth, 1998*.

National Rank on Technology  
Resources Index, 1991-1998



## 8 TECHNOLOGY RESOURCES

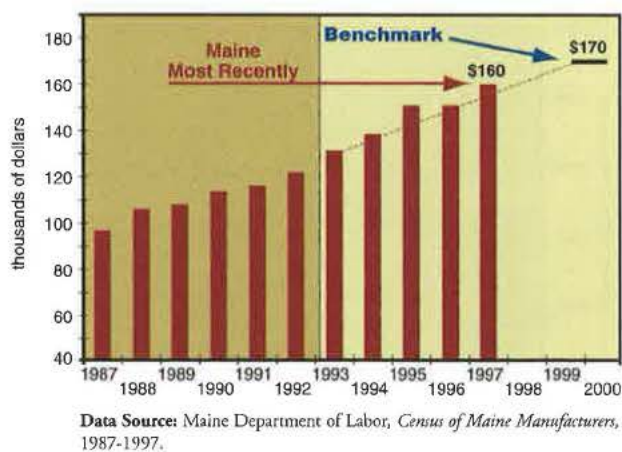
**Benchmark:** Maine's rank among the 50 states on technology resources will improve from 43rd in 1995 to 35th by 2005.

**Low Nationally** This performance measure receives a red flag again this year because Maine is typically ranked low among the 50 states, and the ranking is not improving significantly. In 1998, Maine was ranked 43rd, an improvement over its 1997 rank of 44th.

This is an indicator of Maine's ability to create and capitalize on high-tech opportunities. In addition to increased technology resources as defined here, to be competitive, Maine must also be able to convert innovation from research and development into production.

This performance measure reflects Maine's national rank on a composite index of 6 technology-related indicators such as number of scientists in the state, number of patents issued, and amount of financial resources put toward research and development.

Product Value per Manufacturing Worker,  
1987-1997



## 9 MANUFACTURING PRODUCTIVITY

**Benchmark:** The average value of manufacturing products produced by Maine workers will improve from \$132,000 per year in 1993 to \$170,000 per year by 2000.

**Productivity Steadily Increasing** In 1997, about \$160,000 worth of product was produced on average by each manufacturing worker, an increase of 6% over the average value of product produced per manufacturing worker in 1996.

Productivity is calculated in this performance measure by dividing the total number of manufacturing employees into the total value of manufacturing product produced. Productivity as measured in this way does not strictly reflect worker productivity because capital improvements also increase value of product.

The data for 1997 are preliminary.



## 10 ON-THE-JOB INJURIES

**Benchmark:** Maine's rate of on-the-job injuries per 100 full-time workers, 10.7 in 1993, will get closer to the US rate each year from now until 2000.

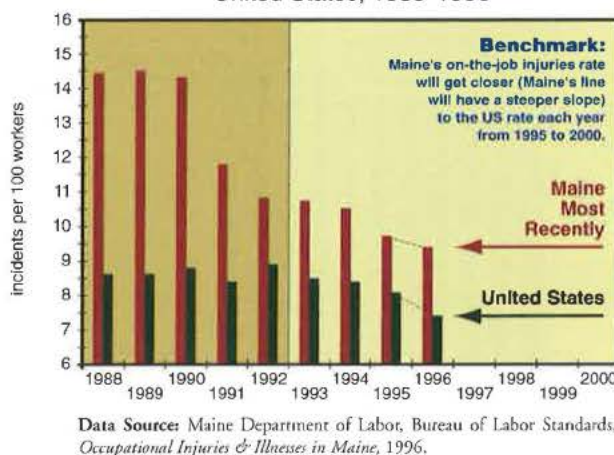
**Rate Improving, but Not Relative to US** In 1996, there were 9.4 injuries and illnesses for every 100 full-time Maine workers, a 3% improvement over 1995. Nationally however, the rate improved by almost 9% to a rate of 7.4 injuries and illnesses for every 100 workers.

This benchmark calls for continuous improvement of the Maine rate relative to the US rate. Actually achieving the US rate will be difficult given that the particular mix of industries in Maine is quite different and slightly more dangerous than it is for the nation as a whole.

Workplace safety is an important component of long-term economic growth because injuries translate directly into increased costs.

The data upon which this measure is based include all types of work-related injuries and illnesses required to be recorded by the Occupational Safety and Health Administration (OSHA).

Injuries and Illnesses, Maine and United States, 1988-1996



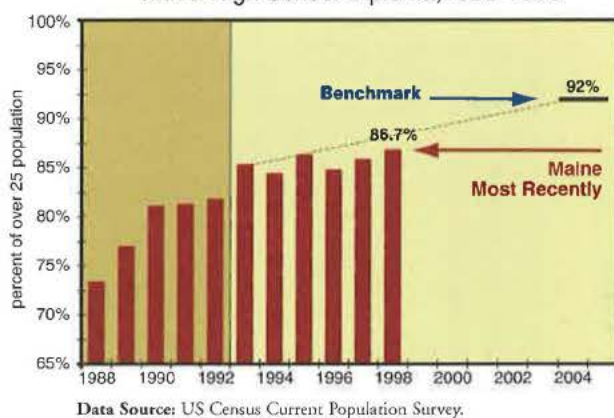
## 11 HIGH SCHOOL DIPLOMAS

**Benchmark:** The percentage of Maine people 25 years and older who have attained a High School diploma or beyond will improve from 86.2% in 1995 to 92% by 2005.

**Slow Improvement and High National Standing** In 1998, 86.7% of Maine people over the age of 25 had completed high school, by receiving either a diploma or high school equivalency. Among the 50 states, this placed Maine 13th. Nationally in 1998, the percentage of people over 25 years old with a high school diploma or equivalency was 82.8%, and the New England average rate was 84.8%.

An educated workforce is fundamental to long-term economic growth, and a high school diploma is considered a basic credential for obtaining meaningful employment. To provide more current information, this performance measure presents data from a slightly different source than was presented in *Measures of Growth, 1998*, although the data presented here are based on estimates.

Percentage of Population over Age 25 with a High School Diploma, 1988-1998



## 12 ASSOCIATE'S DEGREES

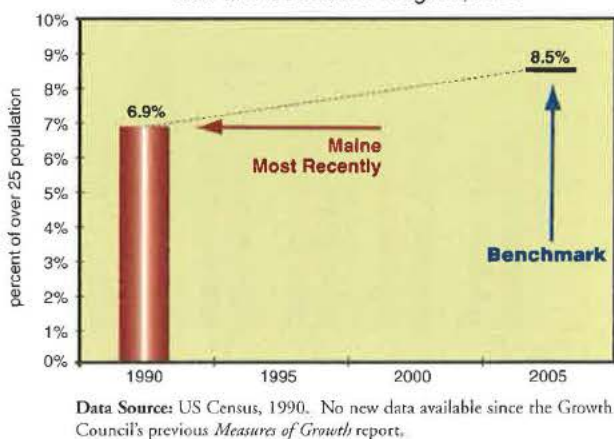
**Benchmark:** The percentage of Maine people 25 years and older who have attained an Associate's Degree will improve from 6.9% in 1990 to 8.5% by 2005.

**Maine Rates Relatively Well, but Needs Improvement** In 1990, the most recent year for which we have data, 6.9% of Maine people over age 25 had an Associate's Degree, compared with 7.04% of New England people and 6.2 % of the nation as a whole. These data include both academic and occupational disciplines.

In order to compete for skilled work, Maine workers require an educational attainment level beyond high school. The labor market must have a well-trained and educated workforce that is flexible, adaptable, and poised for the world of global competition and product and service innovations.

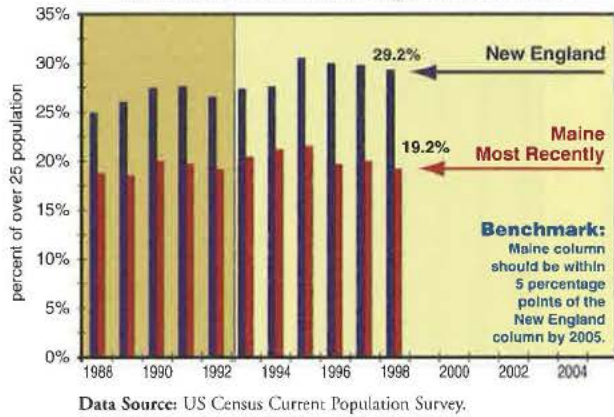
We don't have historical data because the US Census used a different methodology prior to 1980 and this particular data set is reported for Maine only every 10 years.

Percentage of Population over Age 25 with an Associate's Degree, 1990





Percentage of Population over Age 25 with at Least a Bachelor's Degree, 1988-1998



## 13 BACHELOR'S DEGREES

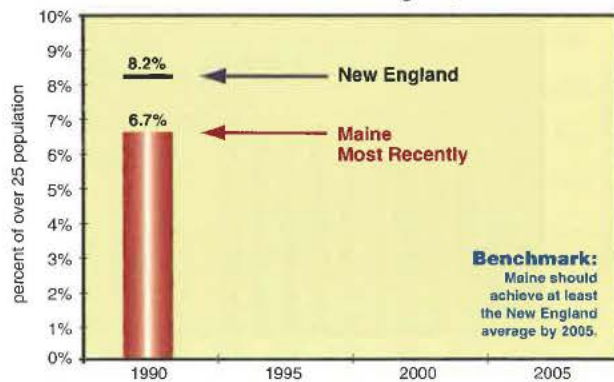
**Benchmark:** The percentage of Maine people 25 years and older who have attained at least a Bachelor's Degree will improve from 21.5% in 1995 to within 5 percentage points of the New England percentage by 2005.

**Maine is Lagging Behind New England and the Nation** This performance measure receives a red flag because a relatively low percentage of people have Bachelor's Degrees. In 1998, 19.2% of Maine people over the age of 25 had at least a Bachelor's Degree, compared with a national rate of 24.4%. For the New England states as a whole, the 1998 rate of 29.2% reflects this region's reputation for leading the nation in higher learning.

The level of educational attainment of Maine citizens is critically important to quality of life and economic well being. The long-term economic competitiveness of Maine is directly linked to the skill and education level of its workforce.

This year, this benchmark has been revised down from the benchmark initially set by the Council based on the widespread perception that the initial benchmark (parity with New England by 2005) is simply unattainable. Also, to provide more current data, this performance measure presents data from a slightly different source than was presented in *Measures of Growth, 1998*; the data presented here are based on estimates.

Percentage of Population over Age 25 with a Graduate Degree, 1990



## 14 GRADUATE DEGREES

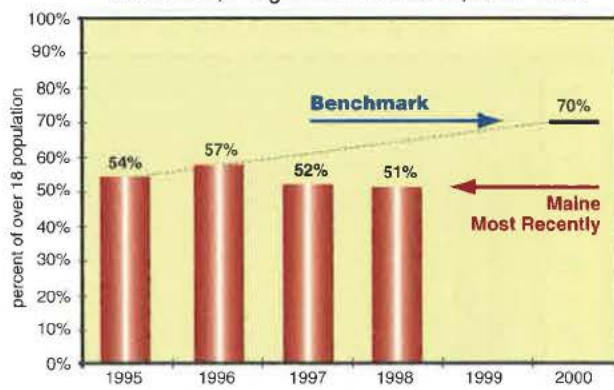
**Benchmark:** The percentage of Maine people 25 years and older who have attained a Graduate Degree will improve from 6.7% in 1990 to the New England percentage by 2005.

**Maine is Lagging Behind the Nation and New England** In 1990, 6.7% of Maine people over the age of 25 had either a master's degree, professional degree, or Ph.D. (known collectively as graduate degrees). This amounted to 53,306 people. Throughout New England, the rate was 8.2%. Nationally in 1990, 7.2% of the population over age 25 had graduate degrees.

Graduate degree attainment is important to many high-tech areas of the economy and is fundamental to business innovation.

We don't have historical data because the US Census used a different methodology prior to 1980 and this particular data set is reported for Maine only every 10 years.

Percentage of Citizens Attending Educational Seminars, Programs or Courses, 1995-1998



## 15 LIFELONG LEARNING

**Benchmark:** The percentage of Maine people who attended an educational seminar, program, or course in the past year will improve from 54% in 1995 to 70% by 2000.

### About Half of Maine People Participating in Educational Programs

In 1998, 51% of Maine citizens said that they participated in some form of educational seminar, program, or course. This is down one percentage point from last year's participation rate of 52%, although the reduction is not statistically significant, given the sample size.

Maine citizens were asked, "In the past 12 months, have you personally attended an educational seminar, program, or course?" The data reflect the percentage of those who said "yes." This percentage includes people enrolled in for-credit courses, adult education courses (primarily high school level courses), continuing education courses (primarily post-secondary level), courses through their workplaces, and all other types of educational seminars and programs.

This is essentially a measure of lifelong learning, regarded as essential to a workforce capable of responding to changing needs of employers.



## 16 CITIZEN OPINION OF EDUCATIONAL OPPORTUNITIES

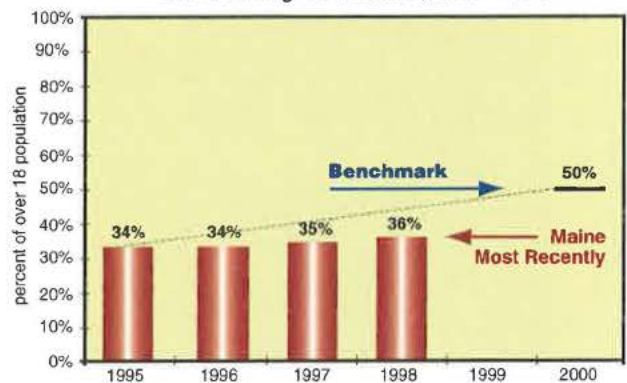
**Benchmark:** The number of citizens who agree that there are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills will improve from 34%, the 1995 figure, to 50% by the year 2000.

**No Change in Perception of Adequacy of Training Programs** In 1998, 36% of Maine people agreed that there are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills. Although there was a one percentage point increase from 1997 to 1998, the increase is not statistically significant, given the survey sample size. Since these data were first collected in 1995, the percentage of Maine citizens who agree adequate programs are available has held relatively constant.

Maine people need adequate training and education to prepare them for the jobs that they desire. This performance measure reflects the perceived availability and adequacy of such programs.

Participants were asked, "What is your level of agreement with the statement 'There are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills?'" The data is based on those who "agreed" or "strongly agreed."

Percentage of Citizens Saying Adequate Education and Training Is Available, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Citizens, 1995-1998.

## 17 EMPLOYER-SPONSORED TRAINING

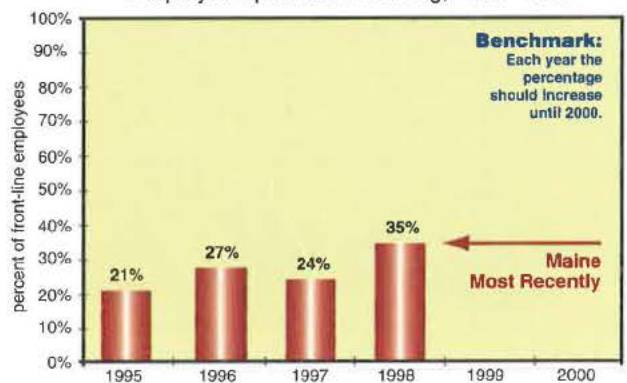
**Benchmark:** The percentage of front-line Maine employees who attended an educational seminar, program, or course through their place of work, 21% in 1995, will improve each year until 2000.

**Excellent Improvement — Previous Benchmark Achieved** In 1998, 35% of Maine workers earning less than \$35,000 reported that they participated in training that was paid for by their employers, a 46% improvement over the 1997 figure. This marks achievement of the benchmark that the Council established in 1995 which called for 35% of all front-line workers to participate in employer-sponsored training.

Maine workers must engage in lifelong learning to respond to the evolving needs of business. A related concern is that training should be provided to *front-line* workers (roughly defined as those earning less than \$35,000 per year), not just managers and other salaried employees.

Maine citizens were asked, "In the past 12 months, have you personally attended an educational seminar, program, or course through your place of work?" The data are based on those who responded "yes."

Percentage of Front-Line Employees Who Attended Employer-Sponsored Training, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Citizens, 1995-1998.

## 18 BUSINESS OPINION OF UNIVERSITIES AND COLLEGES

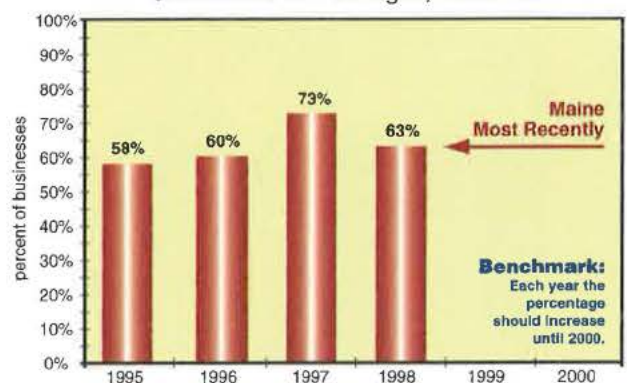
**Benchmark:** The percentage of Maine businesses that think the universities and colleges are doing a good job at meeting the continuous education needs of their employees, 58% in 1995, will improve each year until 2000.

**Business Opinion Worsens** In 1998, 63% of Maine businesses rated Maine's colleges and universities as good, very good, or excellent at meeting the continuous education needs of their employees. This represents a decline from the 73% figure of 1997.

There is a concern that many good quality jobs are being filled by people recruited from out-of-state colleges and universities, which is expensive and sometimes impractical for employers. Long-term economic growth will be facilitated by having responsive, effective colleges and universities in Maine.

Maine business leaders were asked, "How would you rate Maine's universities and colleges for meeting the continuous education needs of your employees?" The data above reflect the percentage that responded "good," "very good," or "excellent."

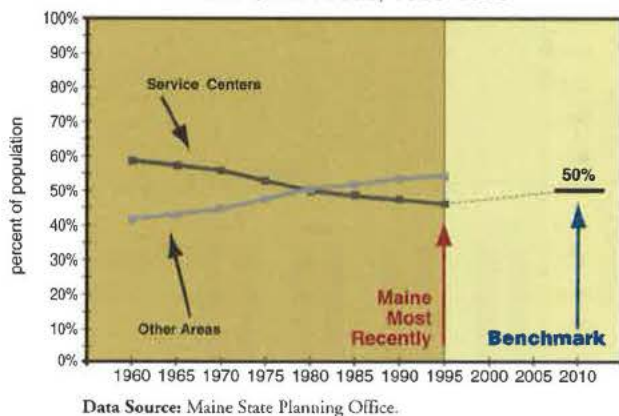
Favorable Rating by Businesses of Universities and Colleges, 1995-1997



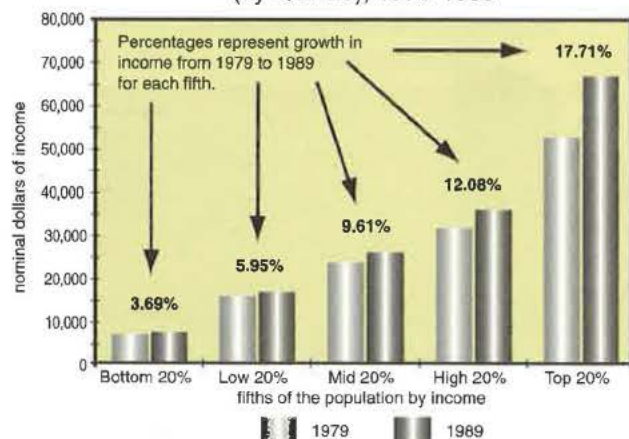
Data Source: Maine Development Foundation Annual Survey of Maine Businesses, 1995-1998.



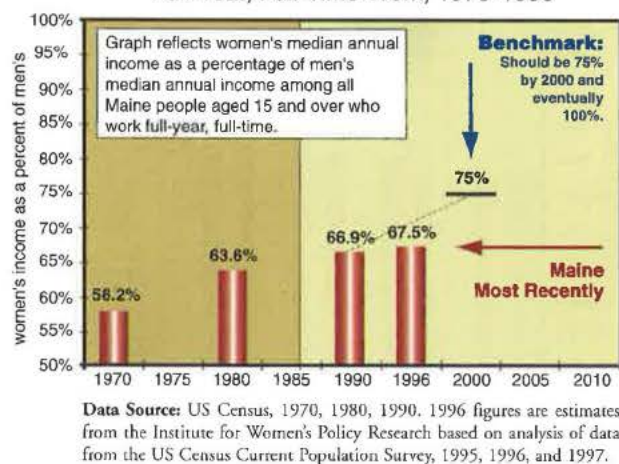
Percentage of Population in Service Centers and Other Areas, 1960-1995



Growth in Household Income (by Quintile), 1979-1989



Women's Income as a Percentage of Men's for Full-Year, Full-Time Work, 1970-1996



## 19 POPULATION OF SERVICE CENTER COMMUNITIES

**Benchmark:** The percentage of Maine people who reside in service center municipalities will improve from 46% in 1995 to 50% by 2010.

**Urban Areas Losing Population Relative to Rural Areas** In 1995, less than half of Maine people (46%) lived in "service center" communities, whereas in the past a majority of people lived in these communities.

Within the boundaries of these 69 specifically identified municipalities, listed below, are 71% of all Maine jobs, 74% of all services (hospitals, social services, education institutions, cultural activities, and government services), and 77% of 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. To the extent that people live closer to, or actually within these service centers, economic growth is enhanced because services are delivered more efficiently, there is less pressure on taxes, and environmental impacts of residential development are lessened in rural areas.

The Maine state Planning Office identified specific service centers according to the following criteria: level of retail sales, jobs-to-workers ratio, amount of federally assisted housing, and volume of service center jobs. By this criteria, the following are Maine's service center municipalities. **Primary Centers:** Auburn, Augusta, Bangor, Bar Harbor, Belfast, Blue Hill, Boothbay Harbor, Brunswick, Calais, Camden, Caribou, Damariscotta, Dover-Foxcroft, Ellsworth, Farmington, Fort Kent, Gardiner, Greenville, Houlton, Lewiston, Lincoln, Machias, Milbridge, Paris, Portland, Presque Isle, Rockland, Skowhegan, Waterville. **Secondary Centers:** Bath, Biddeford, Bingham, Dexter, Falmouth, Jackman, Lubec, Madawaska, Mars Hill, Newport, Norway, Orono, Pittsfield, Rangeley, Sanford, South Portland, Thomaston, Unity, Van Buren, Westbrook, Wiscasset. **Small Centers:** Ashland, Bethel, Brewer, Bridgton, Bucksport, Eastport, Freeport, Guilford, Hallowell, Island Falls, Kennebunk, Kingfield, Kittery, Millinocket, Milo, Princeton, Rumford, Saco, Winthrop.

## 20 HOUSEHOLD INCOME DISPARITY

**Benchmark:** The 10-year growth rate in income for the poorest fifth of Maine households will be greater than the 10-year growth rate in income for the wealthiest fifth of households.

**Income Disparity Increasing, at Last Look at Census Data** Income disparity between Maine's wealthiest and poorest people, as measured by amount of household income earned, has been steadily increasing over the past few decades. During the 1980s, the last time period for which we have census data, average income of the fifth of Maine people with the highest incomes grew dramatically faster than average income of the bottom fifth.

The graph shows the population divided into fifths by income and the growth in income of the top-earning fifth relative to the growth in income of the bottom-earning fifth. The disparity will only be reduced if incomes of the bottom fifth rise faster than incomes of the top fifth. Disparities in income and opportunity threaten the long-term stability of the economy.

## 21 GENDER INCOME DISPARITY

**Benchmark:** The median annual income of full-time, full-year working women will improve from 64% of the median annual income of full-time, full-year working men in 1980 to 75% by 2000, and eventually to 100%.

**Women Continue to Earn Far Less, Although Disparity Decreasing Slightly** In 1996, the median annual income of all women in Maine who worked full-time for the entire year was estimated to be \$21,906, compared to a median income of \$32,453 earned by men who worked full-time, full-year. This translates to an earnings ratio of 67.5%, placing Maine 41st among all states. Nationally, the earnings ratio was 72.3%. The earnings ratios and Maine's national rank are estimates.

This is not a job-for-job comparison but does compare wages earned based on equal time worked. (On average, women work fewer hours per week and fewer weeks per year resulting in an even greater disparity in the total amount of annual income earned by men and women.)

Disparities in the amount of money that women make compared to men provide disincentives for women to contribute to the labor force and impair economic growth by not fully realizing the benefit of having productive economic contributions from all people. Gender disparities are even greater in some particular occupations than for the state as a whole.



## 22 RACIAL INCOME DISPARITY

**Benchmark:** The income per capita of minorities will improve from 69% of per capita income of Whites in 1990 to 77% by 2000 and eventually to 100%.

### Minority Incomes Improving Slightly, at Last Look at Census Data

On average in 1990, the most recent data available, minorities in Maine (including Blacks, American Indians, Eskimos, Aleuts, Asians, Pacific Islanders, and others) received about two-thirds (67%) the amount of income that white people received. We calculate this by looking at all income received by minority people in Maine aged 15 and over and dividing that by the number of minority people, and comparing that to all income received by white people aged 15 and over and dividing that by the number of Whites. By this calculation, 1990 per capita income of Whites was \$13,019 and per capita income of minorities was \$8,997. In Maine, racial income disparity is not as large as it is for the nation as a whole, where minority people received, on average, about 61% of what white people received in 1990.

In Maine in 1990, 98.6% of the 15 and over population were white; four-tenths of one percent were Black; about half of one percent were American Indian, Eskimo, or Aleut; about half of one percent were Asian or Pacific Islander; and one-tenth of one percent were other races.

Disparities in amount of income received by various races of people is detrimental to long-term economic growth because it acts as a disincentive for all races of people to participate in the labor force to their full potential.

## 23 INCOME DISPARITY BY COUNTY

**Benchmark:** Average per capita income in Maine's poorest counties will improve from 66% in 1993 to 75% of per capita income of the wealthiest counties by 2005.

**Disparity Steadily Increasing** This performance measure receives a red flag because the income gap between Maine's wealthiest and poorest counties has steadily increased since the 1970s. Geographic disparities in the wealth of Maine people are detrimental to the economy. To minimize the disparity, per capita income in the poorest counties should be raised.

In 1996, the average per capita income in Maine's four poorest counties (Piscataquis, Somerset, Waldo, and Washington) was \$16,233, about 64% of what it was in the four wealthiest counties (Cumberland, Lincoln, Knox, and Hancock), where income per capita was \$25,347.

That there is regional disparity in income per capita does not imply that Maine people receive different pay for the same type of job depending on which county they live in. Recognizing that there is also disparity among counties with regard to cost of living, the benchmark has been established at 75% rather than 100%. Income per capita is calculated by adding up all income earned in a given year by a group of people (in this case all those residing in the four wealthiest and four poorest counties) and then dividing that number by the number of people in the group.

## 24 EMPLOYMENT DISPARITY BY COUNTY

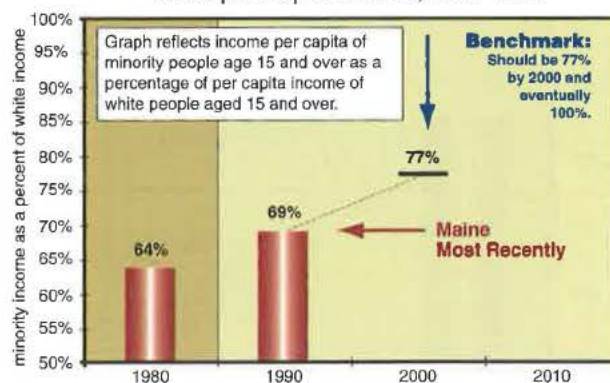
**Benchmark:** Maine counties that had higher-than-average unemployment rates in 1994 will have better-than-average employment growth from 1994 to 2000.

**Job Growth Lacking Where It's Needed Most** *Measures of Growth, 1996* began tracking the following counties that had 1994 unemployment rates higher than the state average: Washington, Aroostook, Somerset, Piscataquis, Oxford, Waldo, Franklin, Hancock, Penobscot, and Androscoggin. The benchmark calls for employment in these specific counties to increase at rates higher than statewide employment growth during the period 1994 to 2000.

Among these 10 counties, only three of them (Waldo, Hancock, and Washington) experienced job growth from 1994 to 1997 at a better rate than the state average (which was 4.67%).

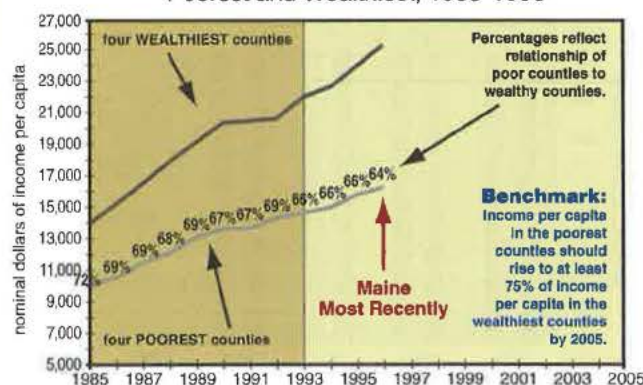
To reduce disparities among counties, we must increase employment in those counties where it's most difficult to get a job. This data represents the number of people employed who are covered by the Maine Employment Security Law.

Minority per Capita Income as a Percentage of White per Capita Income, 1980-1990



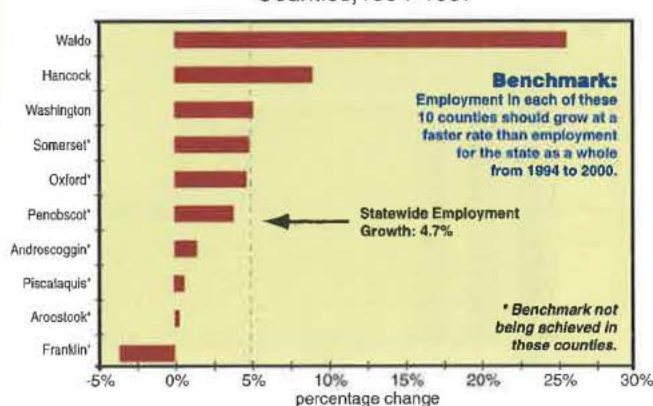
Data Source: US Census, 1980, 1990. No new data available since the Growth Council's previous *Measures of Growth* report.

Income per Capita of Maine Counties, Poorest and Wealthiest, 1985-1996



Data Source: US Bureau of Economic Analysis and the Maine Department of Labor, Division of Labor Market Information Services, November, 1998.

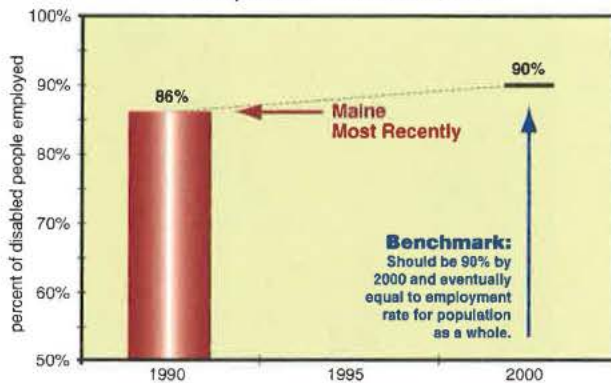
Employment Growth in At-Risk Counties, 1994-1997



Data Source: Maine Department of Labor, Division of Labor Market Information, *Maine Employment Statistical Handbook*, 1997.

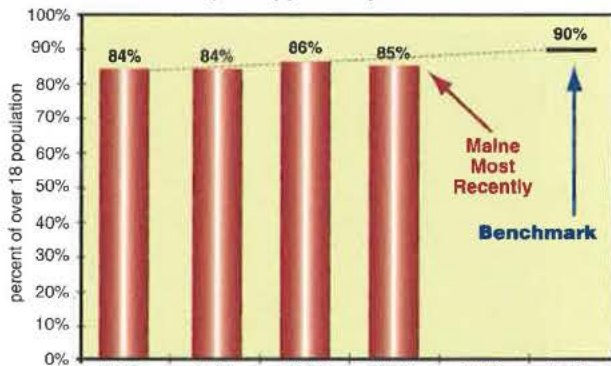


Employment Rate Among  
People with Disabilities, 1990



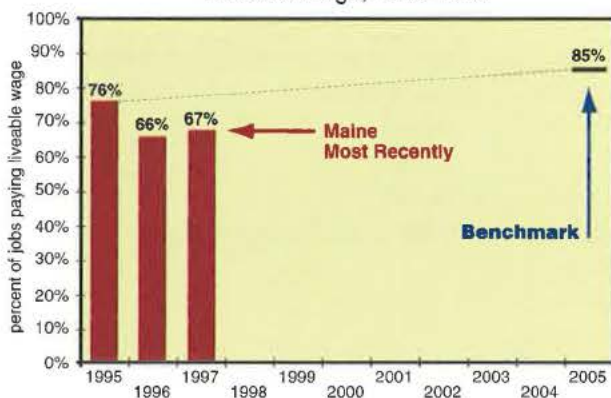
Data Source: US Census, 1990. No new data available since the Growth Council's previous *Measures of Growth* report.

Percentage of Citizens Who Perceive Workplace  
Equal Opportunity, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Citizens, 1995-1998.

Percentage of Jobs that Pay a  
Liveable Wage, 1995-1997



Data Source: Maine Development Foundation analysis based on Maine Department of Labor, Division of Labor Market Information Services, ES-202, Covered Employment and Wages Program.

## 25 EMPLOYMENT OF THE DISABLED

**Benchmark:** Among Maine people with disabilities, the percentage employed will improve from 86% in 1990 to 90% by 2000, and eventually to the same employment rate as the population as a whole.

**Employment Lagging Among People with Disabilities, at Last Look at Census Data** Among people with disabilities in the labor force in 1990, the most recent data available, 86% were actually employed whereas among people in the labor force with no disabilities, 94% were employed.

This is a performance measure because a strong economy requires the contributions that we all have to offer. If a class of people are under-represented in the labor force, the economy is missing out on valuable skills, abilities, and assets of some of our people. This performance measure does not consider people whose disabilities actually prevent them from being able to work, but only those who are in the labor force, and thus willing and able to work. For these purposes, someone with a disability is defined as having a work limitation of some sort, including having been out of work for six of the previous twelve months due to disability.

We don't have historical data because the US Census used a different methodology prior to 1980 and this particular data set is reported for Maine only every 10 years.

## 26 DISCRIMINATION IN THE WORKPLACE

**Benchmark:** The percentage of Maine people who believe that their employers maintain an equal opportunity environment where traits such as gender, race, or ethnicity do not impact their ability to grow and succeed, will improve from 84% in 1995 to 90% by 2000, and eventually to 100%.

**Perceived Discrimination Unchanged** In 1998, 85% of Maine citizens agreed or strongly agreed that "traits such as a person's gender, race, and ethnicity have no impact on a person's ability to grow and succeed." This was a slight reduction from the percent of people who agreed with the statement in 1997, though the reduction is not statistically significant, given the sample size.

Fundamental to long-term economic growth are work environments that afford equal opportunity for employment and advancement.

## 27 JOBS THAT PAY A LIVEABLE WAGE

**Benchmark:** The percentage of jobs that pay a liveable wage will improve from 76% in 1995 to 85% by 2005.

**Number of Liveable Wage Jobs Increasing Slowly** In 1997, about 67.2% of all jobs in Maine paid what the Growth Council considers to be an annual liveable wage for that year: \$19,375 for a family of two. This is an increase from the 1996 figure of 65.5%.

If people are not earning a high enough wage to support themselves and their non-income-earning dependents (such as children, spouses, or elders), they are either forced to live without some basic necessities or they must depend on some type of public assistance. Each has a negative impact on the economy. Jobs that pay below a liveable wage, on balance, are not likely contributing to economic growth. In fact, they ultimately result in higher taxes for Maine businesses and citizens.

This performance measure considers a liveable wage to be 85% above the poverty line wage for a family of two established by the U.S. Department of Labor. In this way, it is directly related to the number of Maine people living in poverty. The family size of two was chosen because roughly half of all Maine people are employed (each job in Maine supports roughly two people).

In previous *Measures of Growth* reports, the percentage of jobs that pay a liveable wage was calculated based on a breakdown of the labor force by occupation, but the way that occupational wage data are collected and aggregated has changed significantly this year making it impossible to continue the analysis in that way. The data in the graph are based on a breakdown of the labor force by 3-digit Standard Industrial Code rather than by occupation, resulting in a lower percentage than was previously published. Actually this new method, not available before, is a more accurate way to assess the percentage of jobs that pay a liveable wage, and also the data are more current.



## 28 VOTER TURNOUT

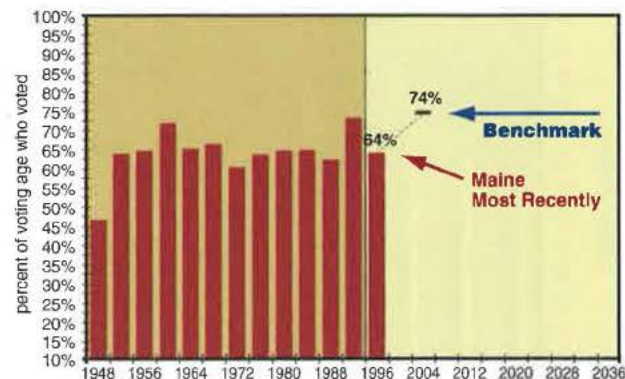
**Benchmark:** The Maine voter turnout rate in the presidential election will improve from 64% in 1996 to 74% in 2000.

**Maine Consistently High Nationally** In the 1996 election, an estimated 64% of Maine people over age 18 actually voted for the office of President of the United States. This mark placed Maine a full 15 percentage points above the national average of 49%. In 1992, Maine voter turnout was 73%.

The Washington DC-based Center for Voting and Democracy estimates that in 1996, Maine had the best voter turnout of any state in the nation.

Voter turnout is a fairly good indicator of participation in democracy and has been very slowly but steadily rising for the past few decades.

Voter Turnout in  
Presidential Elections, 1948-1996



Data Source: Maine Office of Secretary of State. No new data available since the Growth Council's previous *Measures of Growth* report.

## 29 CITIZEN PARTICIPATION IN COMMUNITY ACTIVITIES

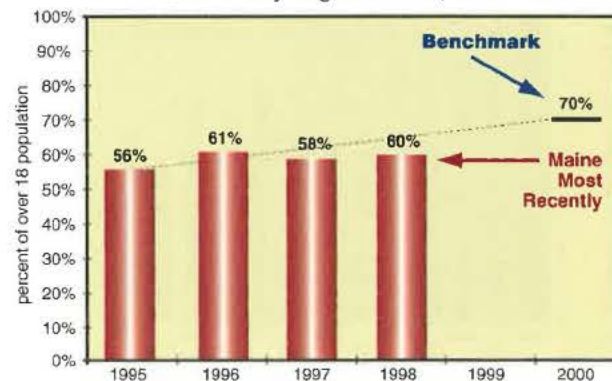
**Benchmark:** The percentage of Maine people who devoted time outside regular family and work activities to community organizations in the past year will improve from 56% in 1995 to 70% by 2000.

**Over Half of Citizens Consistently Involved in Community Organizations** In 1998, 60% of Maine citizens devoted time to community organizations, although the increase over the 1997 rate of 58% is not statistically significant, given the survey sample.

Participation in community projects is an excellent indicator of community vitality and it bodes well for long-term economic growth.

Citizens were asked if, in the previous 12 months, they had devoted time out of their regular family and work schedule to: helping out in the public schools with academic or other related school activities (30% said yes); community organizations which help young people, such as Little League, Big Brothers and Big Sisters, and Scouting (23% said yes); organizations which assist the needy or underprivileged (25% said yes); organizations which assist the elderly, homebound, and people in poor health, such as Meals on Wheels and home health/hospital volunteers (18% said yes); and/or activities sponsored by an environmental organization (11% said yes). The graph reflects the percentage of people each year who reported devoting time to at least one of these types of organizations or activities.

Percentage of Citizens Who Have Devoted Time  
to Community Organizations, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Citizens, 1995-1998.

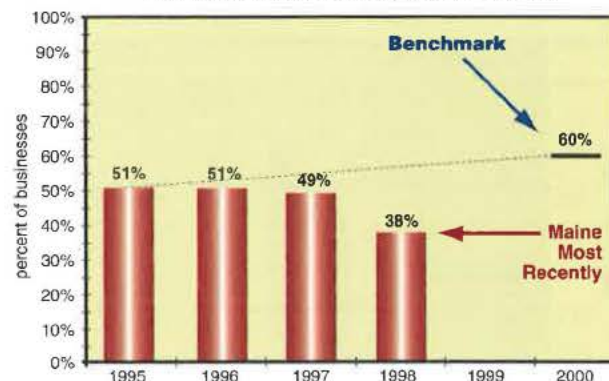
## 30 BUSINESS INVOLVEMENT IN COMMUNITIES AND SCHOOLS

**Benchmark:** The percentage of Maine businesses that took an interest and got involved in school and civic events in the past year will improve from 51% in 1995 to 60% by 2000.

**Business Involvement Declines** In 1998, 38% of Maine businesses took an interest and got involved in local school and civic events. This is a statistically significant decrease from the 49% of businesses who reported civic involvement in 1997.

Partnerships between businesses and schools or other community groups often result in benefits for the community and the business. It is a sound avenue toward long-term economic growth. Maine businesses were asked the extent to which they do well at "taking an interest and getting involved in local school and civic events." The data for this performance measure represent those businesses that responded "very well" or "well."

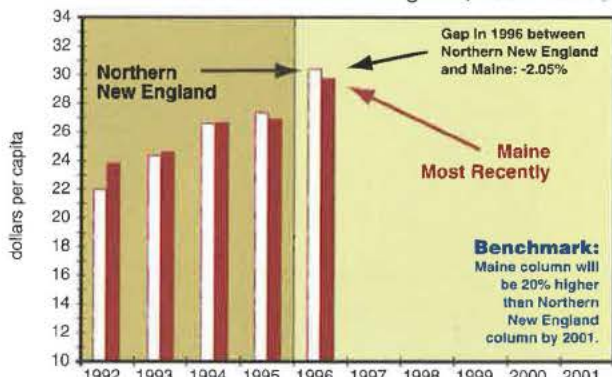
Business Interest and Involvement  
in School and Civic Events, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Businesses, 1995-1998.



Arts and Culture Expenditures per Capita,  
Maine and Northern New England, 1992-1996



Data Source: Urban Institute, National Center for Charitable Statistics, based on data from the Internal Revenue Service.

## 31 ARTS AND CULTURE EXPENDITURES

**Benchmark:** Maine arts and culture expenditures per capita will improve relative to Northern New England expenditures per capita from 2% less in 1996 to 20% more by 2001.

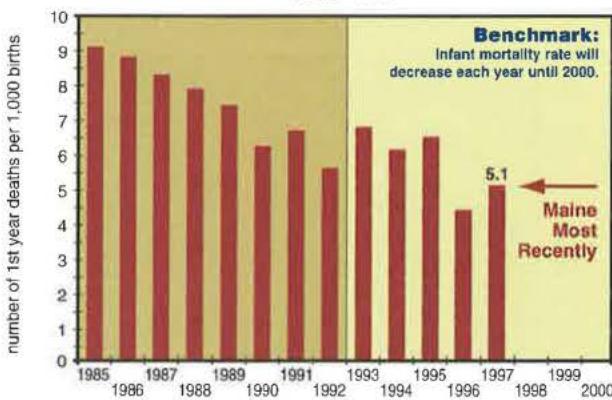
**Maine Arts and Culture Expenditures Relatively Low** In 1996, Maine arts and culture organizations (performing arts organizations, libraries, museums, historical societies, festivals, and others) spent over \$26 million: just under \$30 per resident. Across Northern New England (Maine, New Hampshire, and Vermont), similar organizations spent just over \$30 per resident.

Nationally in 1996, by this same measure, arts and culture expenditures per capita equaled \$33 and across all six New England states, per capita expenditures totaled \$55.

Per capita expenditures by arts and culture organizations is a general indicator of all artistic and cultural activity and is comparable across jurisdictions. Beyond its direct economic contribution via spending and wages, artistic and cultural activity is important to long-term economic growth because it influences business location decisions, attracts tourists and retirees, and generally improves community vitality.

These data reflect the spending of arts and culture nonprofit organizations with annual gross receipts over \$25,000, who are required to file Form 990 with the Internal Revenue Service.

Infant Mortalities per 1,000 Births,  
1985-1997



Data Source: US Department of Health and Human Services, Center for Disease Control, National Center for Health Statistics, *Monthly Vital Statistics Reports*.

## 32 INFANT MORTALITY

**Benchmark:** Maine's infant mortality rate, 6.8 per 1,000 births in 1993, will decrease each year until 2000.

**Previous Benchmark Achieved — Exceptional National Standing** In 1997, Maine's infant mortality rate was 5.1, meaning that 5.1 out of every 1,000 infants died before their first birthday, for various reasons.

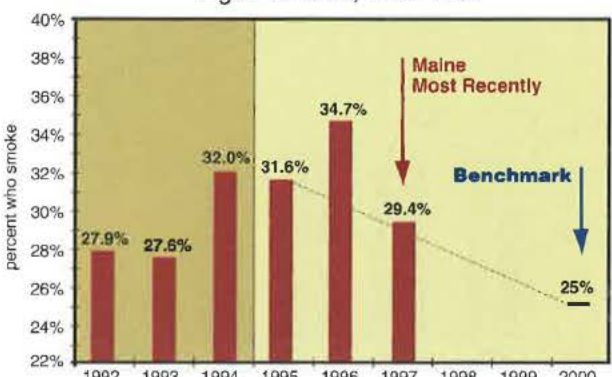
Previously, the benchmark had been established at 6. Data for 1997 and 1996, which were not available at the time *Measures of Growth, 1998* was published, show that the previous benchmark was surpassed in each of those years. Maine's 1996 rate was the best in the nation. A national comparison of 1997 data among states is not yet available and the 1997 Maine figure is preliminary.

Infant mortality is a good indicator of social conditions such as poverty and an unhealthy environment. The rate taken for the state as a whole is a reflection of the extent to which pregnant women and babies under a year old are subjected to negative conditions, as these are two of our most vulnerable populations. The social conditions impacting a human at this early stage of life are good indicators of expected social conditions throughout the individual's life.

Infant mortality is most meaningful when looked at over decades. Over time it is a good but rough measure of a state's or a nation's health, but experts caution against drawing conclusions from year-to-year fluctuations.

Because the previous benchmark has been achieved, a new benchmark has been established calling for continuous improvement.

Cigarette Smoking Among People  
Aged 18 to 34, 1992-1997



Data Source: Maine Department of Human Services, Bureau of Health.

## 33 CIGARETTE SMOKING

**Benchmark:** The number of Maine people aged 18 to 34 who smoke cigarettes will improve from 31.6% in 1995 to less than 25% by 2000.

**Fewer Young Adults Smoking Cigarettes** In 1997, 29.4% of Maine people aged 18 to 34 reportedly smoked cigarettes, a considerable decrease from the 1996 rate of 34.7%.

This is a performance measure because cigarette smoking is the leading cause of preventable death in Maine. Smoking among people aged 18 to 34 is particularly relevant because people of this age are most likely to be passing detrimental effects of smoking on to children. This age group will also be part of the labor force for years to come, and it has been shown that workers who smoke are more costly to employers. Smoking is known to cause heart disease, emphysema, and several types of cancer.



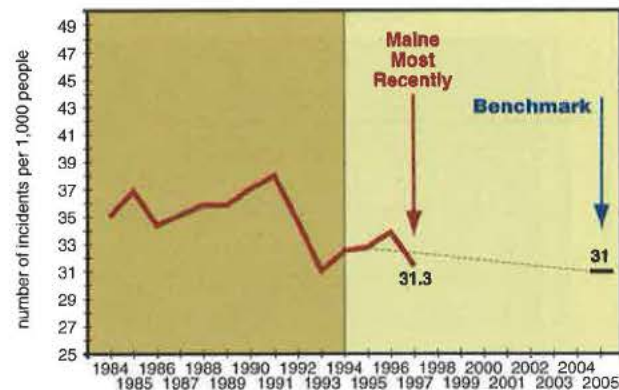
## 34 CRIME

**Benchmark:** Maine's crime rate will improve from 32.7 incidents per 1000 people per year in 1994 to below 31 incidents per 1,000 people per year by 2005.

**Crime Rate Going Down** In 1997, there were 31.3 incidents of crime in Maine per 1,000 people, a 7.7% improvement over the 1996 rate. Nationally, the crime rate also improved from 1996 to 1997, although not as dramatically. The national rate improved 3% from 50.8 to 49.2 incidents per 1,000 people.

Crime is an important performance measure because it adds to the cost of conducting business and to the tax burden for prosecution and incarceration of criminals. In addition, lower crime rates mean Maine offers individuals and businesses a safe environment in which to live, raise children, and do business.

Crime Rate, 1984-1997



Data Source: Federal Bureau of Investigation, *Crime in the United States*, 1997.

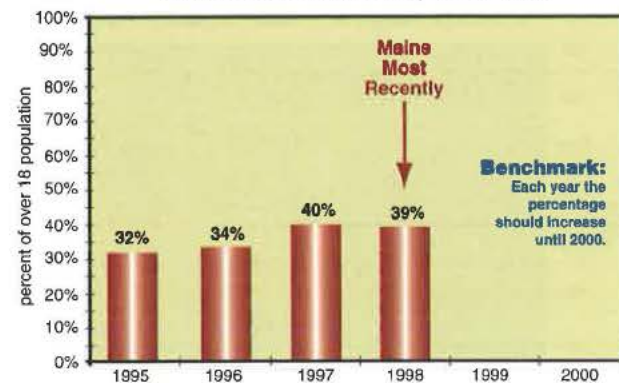
## 35 CITIZEN SATISFACTION WITH STATE GOVERNMENT

**Benchmark:** The percentage of Maine people who regard the value of state services as good or excellent for the taxes they pay, 32% in 1995, will improve each year until 2000.

**Two Out of Five People Value State Services** Maine citizens were asked, "How would you rate the value of state services that you get for the taxes you pay to the state?" In 1998, 39% of those surveyed rated state services as good or excellent, a one percent decrease from the previous year, although the decrease is not statistically significant, given the sample size. Nevertheless, the benchmark of continual improvement in citizen satisfaction with government was not achieved in 1998.

The value of services for the amount of money paid (in this case taxes) is a good measure of efficiency. People's perception of the efficiency of state government is an important component of their satisfaction with government, and satisfaction with government is important in fostering economic growth.

Citizen Satisfaction with Value of State Services for Taxes Paid, 1995-1998



Data Source: Maine Development Foundation Annual Survey of Maine Citizens, 1995-1998.

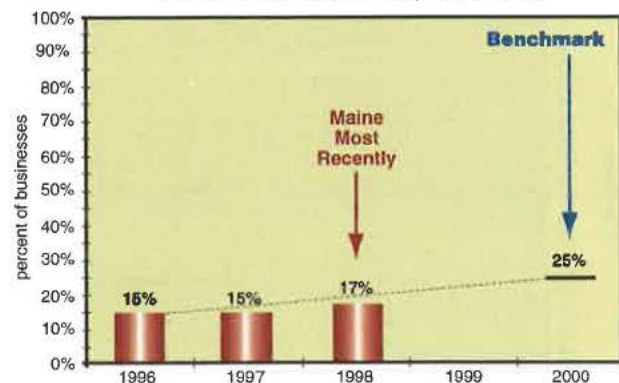
## 36 BUSINESS SATISFACTION WITH STATE GOVERNMENT

**Benchmark:** The percentage of Maine businesses that regard the value of state services that they receive for the taxes they pay to the state as good or excellent will improve from 15% in 1996 to 25% by 2000.

**Businesses Opinion of State Government Remains Low** In 1998, 17% of businesses surveyed responded "good" or "excellent" to this question: "How would you rate the value of state services that you get for the taxes you pay to the state?" A slightly higher percentage of businesses responded favorably to this question in 1998 than in previous years, but the difference is not statistically significant, given the survey sample size.

This is a measure of perceived government efficiency because it asks about value in light of amount of taxes paid.

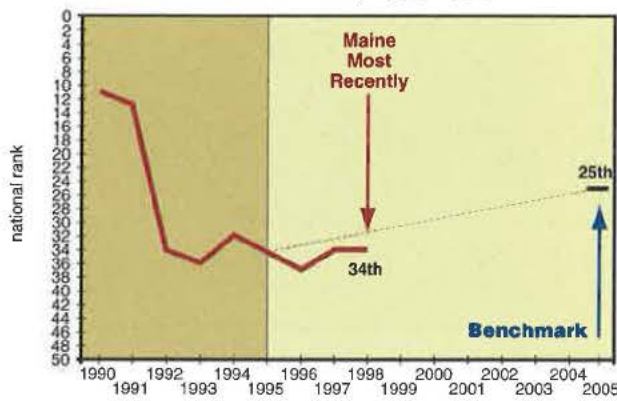
Business Satisfaction with Value of State Services for Taxes Paid, 1996-1998



Data Source: Maine Development Foundation Annual Survey of Maine Businesses, 1996-1998.



### Fiscal Stability and Balanced Revenue, National Rank, 1990-1998



Data Source: Corporation for Enterprise Development, *Development Report Card for the States*, 1998.

## 37 FISCAL STABILITY AND BALANCED REVENUE



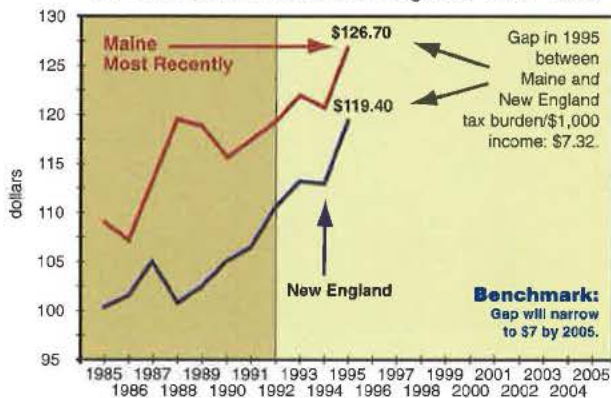
**Benchmark:** Maine's rank among the 50 states on fiscal stability and balanced revenue will improve from 34th in 1995 to 25th by 2005.

**Relative Standing Unchanged** In 1998, Maine ranked 34th in the nation on a national index of fiscal stability and balanced revenue, the same rank as in 1997.

This composite index examines *balance* among the four major taxes (corporate, income, property, and sales) and *fiscal stability* by the size of the state's rainy day fund, whether it allows net operating carrybacks in the corporate income tax, and the breadth of its sales tax. Maine scores well with regard to the balance of state tax collections. The primary reason for Maine's low standing nationally has to do with lack of *stability* of the taxation system. In particular, Maine is penalized for allowing operating loss carrybacks.

This index is important for businesses and others who are concerned with the predictability of taxes and stability of the state economy. This performance measure must be looked at in conjunction with 38 - *State and Local Tax Burden*, and 39 - *Tax Fairness*.

### Individual Tax Burden/\$1,000 Income, All Taxes, Maine and New England, 1985-1995



Data Source: US Census, State and Local Government Finance Estimates.

## 38 STATE AND LOCAL TAX BURDEN



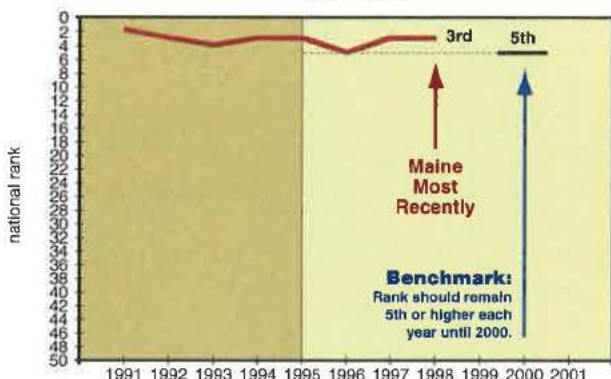
**Benchmark:** The gap between Maine and New England in state and local tax burden per \$1,000 of income generated will improve from \$8.70 in 1992 to less than \$7.00 by 2005.

**Gap Narrows Slightly** In 1994, Maine people earned a total of just over \$24 billion in income and paid a total of almost \$3 billion in state and local taxes. For every \$1,000 earned as income in Maine, about \$126.70 was paid in state and local taxes. The average tax burden per \$1,000 of income for New England was about \$119.40. In 1995, the gap between Maine and New England was \$7.32, whereas in 1994 the gap was \$7.76. State and local taxes paid per \$1,000 of income nationwide was about \$116.90 in 1995.

There are several ways to measure tax burden. This measure was chosen because it considers ALL taxes paid to state and local governments, not just income taxes or any other specific type of taxes. Also, unlike per capita measures, this measure relates taxes to the state's relative wealth, not size of population. It is calculated by adding the total amount of income, sales, property, corporate income, and other taxes collected (does not include transfers from the federal government or other revenue sources such as liquor or lottery sales) and dividing that by the total amount of income earned by individuals (as a proxy for wealth of the state). The same calculation is made for Maine and for New England as a whole. 1995 is the most recent year for which we have data that are comparable with all other states.

This performance measure must be looked at in conjunction with 37 - *Fiscal Stability and Balanced Revenue* and 39 - *Tax Fairness*.

### National Rank on Tax Fairness, 1991-1998



Data Source: Corporation for Enterprise Development, *Development Report Card for the States*, 1998.

## 39 TAX FAIRNESS



**Benchmark:** Maine's national rank among the 50 states on tax fairness will remain at least 5th or better each year from 1996 to 2000.

**Maine Excellent Relative to Other States** Maine had the third most fair state tax system in the nation in 1998, according to this particular method of assessment. Maine's overall rank in tax fairness remains unchanged from the previous year.

This performance measure is a composite index based on sales and excise tax burden on poor families, progressivity of the income tax, the income level at which people begin paying income taxes, the property tax circuit breaker (which provides property tax relief in instances where an individual's property tax burden is unreasonable relative to earned income), extent to which corporate reporting is shared with other states, and accuracy of revenue reporting.

Maine's high ranking is due in large part to the fact that Maine has a property tax circuit breaker program, combined reporting (shared with other states), and openly reports lost revenue due to tax incentive programs. Also, Maine's income tax threshold, the level of income at which a family of three begins to pay income taxes (\$12,300), is relatively high. Maine gets penalized primarily because of the regressivity of the sales tax (poorer people pay a higher percentage of their income in sales tax than do wealthier people).

This performance measure must be looked at in conjunction with 37 - *Fiscal Stability and Balanced Revenue* and 38 - *State and Local Tax Burden*.



## 40 CONDITION OF ROADS

**Benchmark:** The average pavement condition rating (weighted by use) of National Highway System roads in Maine, 3.51 in 1994, will improve every two years until 2003.

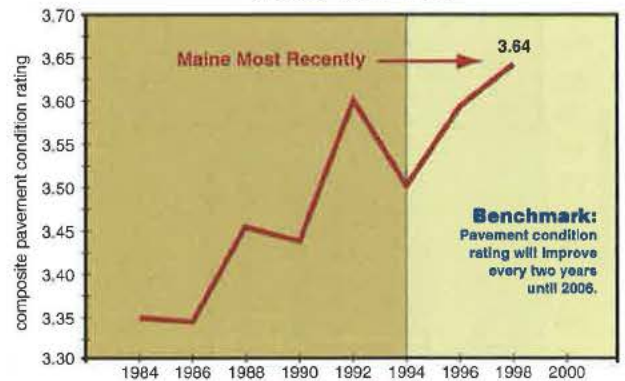
### Pavement Condition Improving — Previous Benchmark Achieved

In 1998, the condition of Maine roads on the National Highway System was rated 3.64 on a scale of 1 to 5, with 5 being perfect and 0 being out of service. This is a solid improvement over the 1996 rating of 3.58 and marks achievement of the Growth Council's initial benchmark established at 3.6.

These data rest on a composite of the pavement condition ratings of all the following roads, each weighted according to amount of road use: I-95, I-195, I-295, I-395, I-495, and other major roads in the state such as Routes 1, 3, 201, and 302, among others. Maine's National Highway System roads and bridges are fundamental to moving the state's commerce. Minor arterials and major collectors are also important, but for simplicity, are not considered as part of this performance measure.

Because the previous benchmark was achieved, the Growth Council has established a new benchmark calling for continuous improvement.

Condition of National Highway System Roads, 1984-1998



Data Source: Maine Department of Transportation; Bureau of Planning, Research and Community Service.

## 41 CONDITION OF BRIDGES

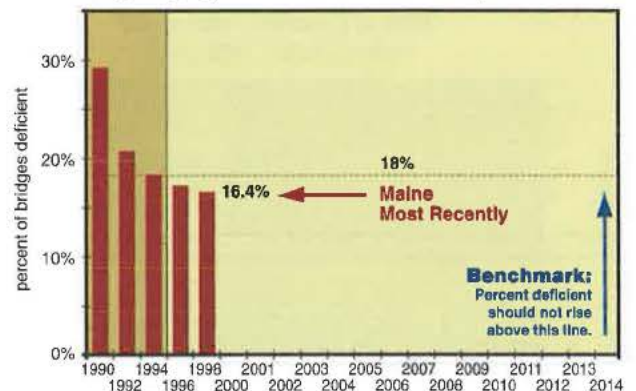
**Benchmark:** The percentage of Maine's bridges on the National Highway System that are deficient will not exceed 18% from 1994 to 2014.

**Condition of Maine Bridges Continues Slight Improvement** In 1998, 16.4% of Maine's highway bridges on the National Highway System were considered deficient in some way; that is, they have a Federal Sufficiency Rating of 80 or less and are structurally deficient or functionally obsolete. This is a considerable improvement from 1990 when 29% of Maine's National Highway System bridges were considered deficient, and a slight improvement from 1996.

Bridges represent a significant infrastructure investment by the government. Maintaining that investment and facilitating the flow of commerce is fundamental to long-term economic growth. This measure looks at all bridges on the National Highway System in Maine that are at least 20 feet long and carry highway traffic.

There are approximately 3,600 bridges in Maine, 500 of which are on the National Highway System, which includes I-95, I-195, I-295, I-395, I-495, the Maine Turnpike, and other major roads in the state such as Routes 1, 3, 201, and 302, among others. A large percentage of Maine's commerce travels these roads. There are also minor arterials and major collectors which are important, but for simplicity, they are not considered as part of this performance measure.

Percentage of Maine Bridges on the National Highway System Classified Deficient, 1990-1998



Data Source: Maine Department of Transportation; Bureau of Planning, Research and Community Service.

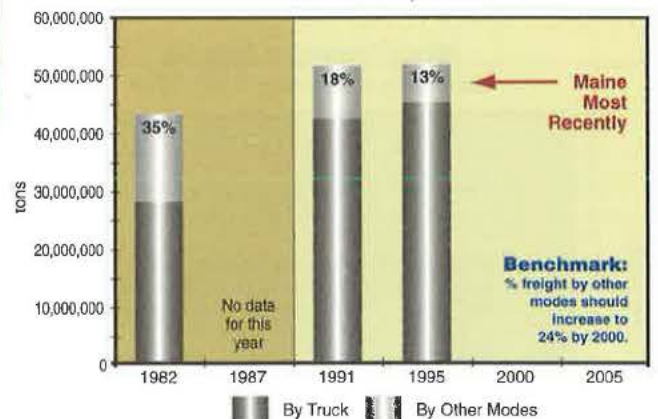
## 42 MODES OF FREIGHT TRANSPORT

**Benchmark:** The percentage of all manufacturing freight shipped in the state that goes by rail, water, or air will improve from 18% in 1991 to 24% by 2000.

**Trucking on the Increase, at Last Look at the Data** Since 1982, there has been a steady decrease in the percent of manufacturing freight shipped by air, rail, and water. In 1995, Maine manufacturers shipped about 53.6 million tons of freight, 87% of it by truck and the rest by other modes. From 1991 to 1995, manufacturing freight shipped over the road increased 7.8% from 43.3 million tons to 46.7 million tons while in the same time period, manufacturing freight shipped via other modes (rail, water, air) decreased 26.9% from 9.5 million tons to 7 million tons. The shift toward trucking is due in part to the demand for precise inventory control.

Improving the balance among transport modes will result in increased modal choice. Maine has a number of underutilized transport modes in the form of railroads, airports, and seaports. Maine's collector roads are deemed to be overburdened with conventional vehicular transportation and require large capital investments to maintain and upgrade. Greater utilization of air, rail, and seaports would relieve the dependency on the traditional collector-road system and result in greater efficiencies and economies of scale.

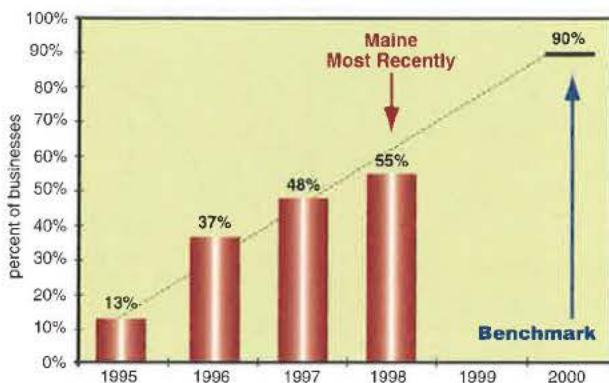
Manufacturing Freight by Truck and Other Modes, 1982-1995



Data Source: Maine Department of Transportation, Office of Freight Transportation. No new data available since the Growth Council's previous Measures of Growth report.

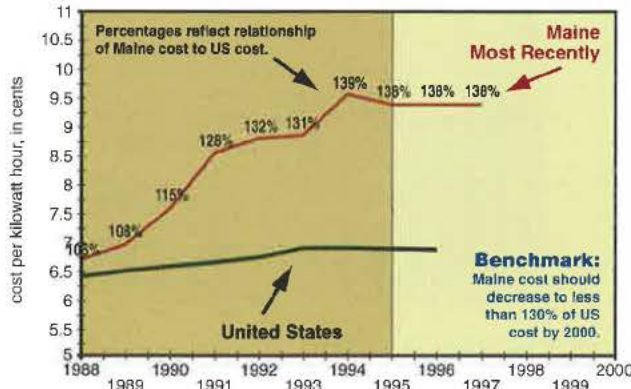


### Business Use of the Internet, 1995-1998



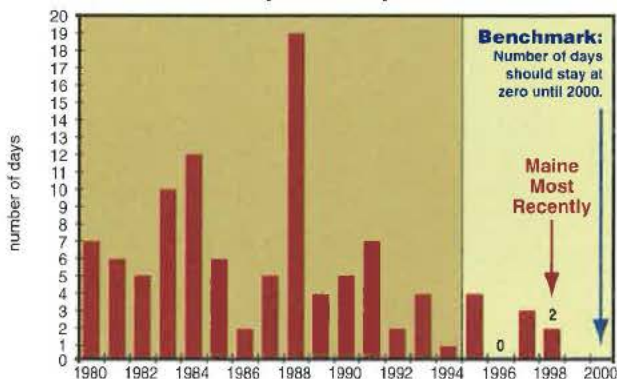
Data Source: Maine Development Foundation Annual Survey of Maine Businesses, 1995-1998.

### Cost of Electricity, Maine and United States, 1988-1997



Data Source: US Department of Energy, Energy Information Administration, *Annual Electric Utility Reports*, 1988-1997.

### Annual Number of Days with Unhealthy Air Quality, 1980-1998



Data Source: Maine Department of Environmental Protection, Bureau of Air Quality Control.

## 43 TELECOMMUNICATIONS

**Benchmark:** The percentage of Maine businesses using the Internet will improve from 13% in 1995 to 90% by 2000.

**Just Over Half of Businesses Use the Internet** In 1998, 55% of Maine businesses surveyed reported that they used the Internet. In the past four years, the percentage of Maine businesses using the Internet has more than quadrupled.

This is a performance measure because use of telecommunications reduces the geographic barriers to economic development that Maine has traditionally experienced. Economic growth depends on our transition to a more global marketplace, linked by advanced telecommunications. Although numerous other communications technologies could be measured, e.g., data transmission capability and video conferencing, Internet use is representative of an advanced technology most useful to most Maine businesses, large and small.

Businesses were asked, "What telecommunications systems and services are currently used by your company?" The graph reflects the percentage of those who said they used "Internet (E-mail, WWW, etc.)" among other choices such as fax, 800 number, and others.

## 44 COST OF ELECTRICITY

**Benchmark:** The cost of electricity in Maine will decrease to less than 130% of the average US cost of electricity by the year 2000.

**Maine Electricity Costs Holding Steady Relative to US** In 1997, electricity in Maine cost an average of 9.5 cents per kilowatt hour whereas across the nation as a whole, it averaged 6.87 cents per kilowatt hour. In New England, electricity averaged 10.5 cents per kilowatt hour. So while Maine costs were 38% higher than average US costs, they were 10.5% less than average New England costs.

This performance measure reflects an aggregate of all revenue generated by electric utility companies from residential, commercial, industrial and other sectors divided by total number of kilowatt hours produced.

The cost of electricity is a fundamental cost of doing business and so it is important that it be competitively low in order to attract and retain businesses. Three recent developments will likely affect the cost of electricity in Maine: deregulation of the electric utility industry, the closing of Maine Yankee Atomic Power Plant, and the prospect of a natural gas pipeline through Maine.

## 45 AIR QUALITY

**Benchmark:** The number of days that Maine experiences unhealthy air quality due to ground-level ozone will improve from 4 days in 1995 to a consistent standard of zero through 2000.

**Maine Continues to Have Unhealthy Air** In 1998 there were 2 days that Maine's ground-level ozone was high enough to be deemed unhealthy by this particular measure.\* This is a decrease from the previous summer that had 3 such days.

Over the three-year period on which this standard is based, air quality has improved such that Maine is currently in compliance. As a result, USEPA has "revoked" the state's non-compliance status.

Air quality is important to long-term economic growth for three reasons. First, high levels of ground-level ozone are unhealthy for Maine people, causing lost work days and other costs associated with ill health. Second, clean air is more valuable than dirty air because the dirtier the air is, the more we must reduce allowable additional pollution, and pollution reduction is costly. Third, Maine benefits economically from its reputation for being pristine. Strong scientific evidence indicates that Maine's ozone (and other) pollution comes from other, upwind states, as well as being generated here in Maine. Gaining a reputation for poor air quality, whatever the cause, would work against economic growth.

\* Up until 1998, the federal air quality standard was that the air should not contain more than .12 parts per million of ground-level ozone as measured by looking at maximum hourly concentrations. Although the federal standard recently changed to become more strict, the Maine Economic Growth Council continues to use the old standard so as to maintain the integrity of the trend that this performance measure tracks.



## 46 WATER QUALITY OF LAKES

**Benchmark:** The percentage area of significant Maine lakes that are fully suitable for swimming will be at least 94.6% from 1994 through 2004.

**Percentage Recently Decreased** Maine has 987,283 acres of significant lakes. Of Maine's 5,788 lakes, 2,315 are deemed significant. These are the lakes that are regularly evaluated by the Maine Department of Environmental Protection. These lakes make up 97% of the state's total lake area.

Of these 2,315 significant lakes, 53 were considered only partially suitable for swimming in 1998, totaling 50,859 acres. This amounts to about 5.3% of the total acres of significant lakes.

The primary determinant of a lake's suitability for swimming is the extent to which it has algal blooms. When a lake experiences a "bloom," it appears green and is quite unattractive and unsuitable for swimming. The most common cause of algal blooms is storm water runoff entering the lake directly, carrying non-point source pollution, particularly the nutrient phosphorus. Lake water quality is affected by land use development decisions.

This is a performance measure because lake waters provide nurseries and feeding grounds for an untold number of plant and animal species. They also provide drinking water and valuable recreational opportunities for Mainers and visitors. Maine is one of a handful of states in the nation that is endowed with this quantity and quality of natural inland waters.

## 47 WATER QUALITY OF RIVERS

**Benchmark:** The number of miles of Maine rivers not suitable for fish consumption due to dioxin will improve from 236 miles in 1996 to 0 miles by 2000.

**292 Miles Unsuitable for Eating Fish Due to Dioxin** Due to unsafe levels of dioxin, people are advised not to eat unlimited quantities of fish caught from the Penobscot below Lincoln, the Salmon Falls River below Berwick, the East Branch of the Sebasticook below Corinna, the West Branch of the Sebasticook below Hartland, and the entire Maine length of the Androscoggin and Kennebec. These stretches of river total 292 linear miles. Other stretches of Maine rivers are unsuitable for fish consumption for other reasons.

The increase noted in "unsuitable miles" results from improved monitoring by the Department of Environmental Protection and subsequent revision of Fish Consumption Advisories by the Maine Bureau of Health (1997). It is not necessarily an indicator of an increase in dioxin discharges. In fact, dioxin concentrations in fish caught below most Maine paper mills is decreasing.

The effects of dioxin include cancer, chloracne, and immunotoxic, reproductive, and developmental disorders.

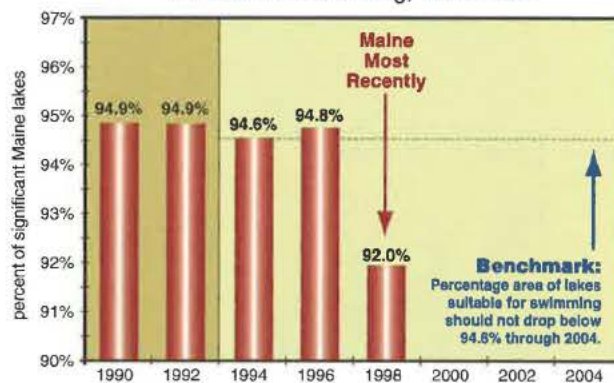
## 48 WATER QUALITY OF MARINE AREAS

**Benchmark:** The number of acres of estuarine areas not suitable for shellfish harvesting, 257,908 acres in 1995, will decrease each year until 2000.

**Steady Improvement** In November, 1997, the amount of area closed to shellfish harvesting along the Maine coast was 202,616 acres, representing 11.55% of all shellfish beds. Each year since 1993, additional areas of shellfish beds have been opened representing an improvement in marine water quality.

Areas of shellfish beds open to harvesting is important not only because it has a direct effect on the shellfishing industry (over \$16 million gross sales in 1997), but also because it is an indicator of overall marine and estuarine water quality, which is important to commercial fishing activity and the ecological integrity of the marine environment. Shellfish beds are typically closed off to harvesting due to sewage discharge, non-point source pollution, and marine biotoxin.

Percentage of Significant Lakes Suitable for Swimming, 1990-1998

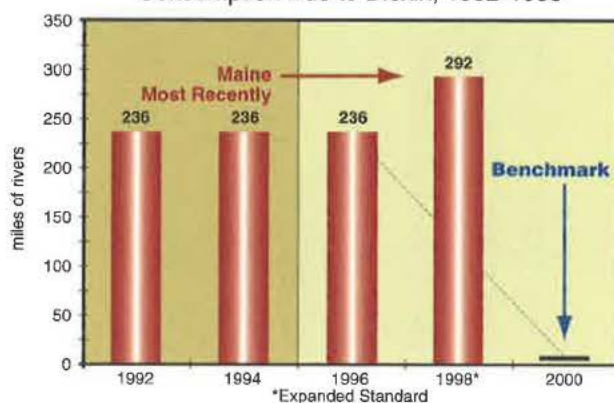


Data Source: Maine Department of Environmental Protection, *State of Maine Water Quality Assessment*, 1998.



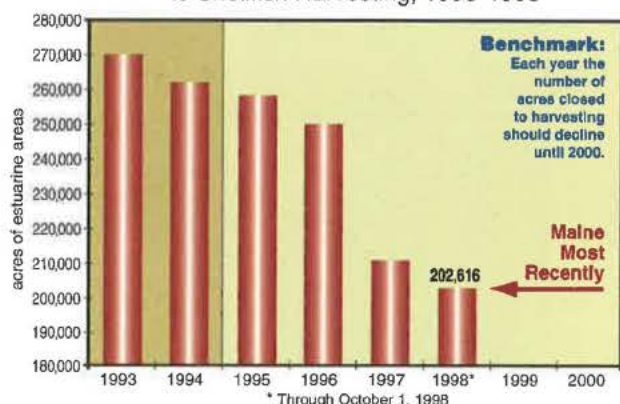
**ERROR:** In the above graph, the 1998 figure should be 94.7% rather than 92%. For a correct version, please view performance measure 46 on-line at <http://www.mdf.org/mecg/growth99/home.htm>

Miles of Rivers Unsuitable for Fish Consumption Due to Dioxin, 1992-1998



Data Source: Maine Department of Environmental Protection, *State of Maine Water Quality Assessment*, 1998.

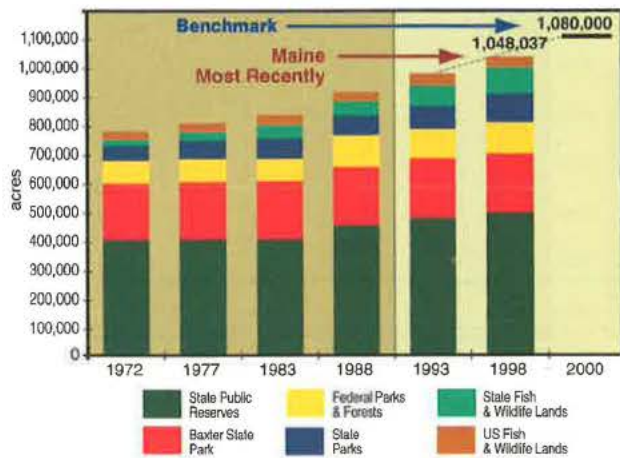
Acres of Flats and Waters Closed to Shellfish Harvesting, 1993-1998



Data Source: Maine Department of Marine Resources.

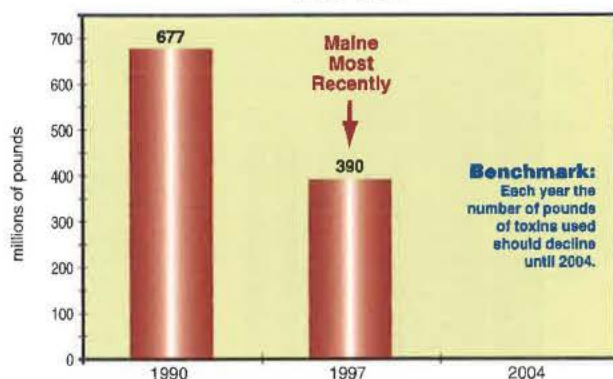


## Land in Conservation for Public Use, 1972-1998



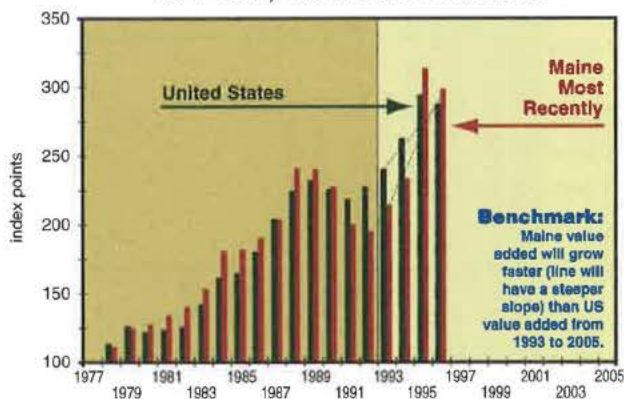
**Data Source:** Maine Department of Conservation, Bureau of Parks and Lands; Maine Department of Inland Fisheries and Wildlife; Baxter State Park Authority; Acadia National Park; White Mountain National Forest; Appalachian Trail Commission; US Fish and Wildlife Service; all 1998 except US Fish and Wildlife Service which is a 1997 figure.

## Pounds of Toxins Used in Manufacturing, 1990-1997



**Data Source:** Maine Department of Environmental Protection, Office of Innovation and Assistance.

## Forest Products Value Added (Indexed from 1977) 1977-1996, Maine and United States



**Data Source:** US Bureau of Economic Analysis, September, 1998.

## 49 CONSERVATION LANDS

**Benchmark:** The amount of Maine conservation land intended for public use will improve by 10%, from 977,869 acres in 1993 to 1,080,000 acres by 2000.

**Good Progress Toward an Ambitious Benchmark** Since 1993, the amount of land in conservation (just the types of land counted in this performance measure) has increased by 7.2%. Much of this land was acquired via the Land for Maine's Future program, which has since spent its \$35 million from a voter-approved bond issue. State Fish and Wildlife lands increased by 28% (actual acreage is an estimate); State Parks increased by 26%; and US Fish and Wildlife Lands increased by 15%. There were no decreases in any category.

Given that Maine has so few acres of land in public ownership compared to other states, vast areas of land conservation have always been a challenge. However, land in conservation where use is encouraged is very important to long-term economic growth because so many people visit Maine and live in Maine because of the availability of these lands.

The amount of land reflected in the graph is an indicator of land conservation trends but does not accurately reflect the magnitude of all lands in the state which are actually in conservation (for instance, this data excludes all land in conservation easements held in private trust, and municipal parks). Federal Parks and Forests include Acadia National Park, the White Mountain National Forest, and the Appalachian Trail Corridor.

## 50 INDUSTRIAL USE OF TOXIC CHEMICALS

**Benchmark:** The number of pounds of toxins used by businesses, 677 million in 1990, will decrease each year until 2000.

**Exceptional Progress — Previous Benchmark Achieved** In 1997, Maine businesses used about 390 million pounds of toxic materials, mostly in manufacturing. This represents a 43% decrease from the amount of toxic materials used in 1990 and marks achievement of the initial benchmark established at 474 million pounds.

Toxic substances or toxins (also known as extremely hazardous substances) are defined by the federal government and include such things as phenol, chlorine, propylene oxide, and hydrogen chloride. There are currently 129 companies or facilities in Maine that use such chemicals in amounts that require reporting. Toxins are typically found in textile mills, tanners, electronics plants, and metal finishing plants, among others.

These data reflect total reduction in toxic use and are different from data reported for purposes of the Toxic Use and Toxic Release and Hazardous Waste Reduction Act, which reflect only those companies required to report both in 1990 and 1997.

Because the previous benchmark was achieved, the Growth Council has established a new benchmark calling for continuous improvement.

## 51 PAPER AND LUMBER VALUE ADDED

**Benchmark:** Maine's growth in value added in the forest products industries will be better than US growth rates, on average, from 1993 to 2005.

**Maine Growth Outpacing the Nation** From 1993 to 1996 (the most recent data available), value added in Maine's paper and lumber industries grew 3.9%, compared with national growth in these industries of 2%. In 1996, paper and lumber value added totaled \$2.2 billion, about 7.8% of the Maine economy.

Given that Maine forest products account for a sizeable portion of the US market, it's not surprising to see similarities in the two growth rates, although Maine's growth has been more volatile, and more robust recently.

For the purposes of this performance measure, forest products include all establishments that manufacture paper, lumber, and other wood products.

For ease of comparison, the graph shows Maine and United States data indexed to 1977, whereby 1977 values were equalized to 100. This is a change from the way these data were presented in *Measures of Growth, 1998*.



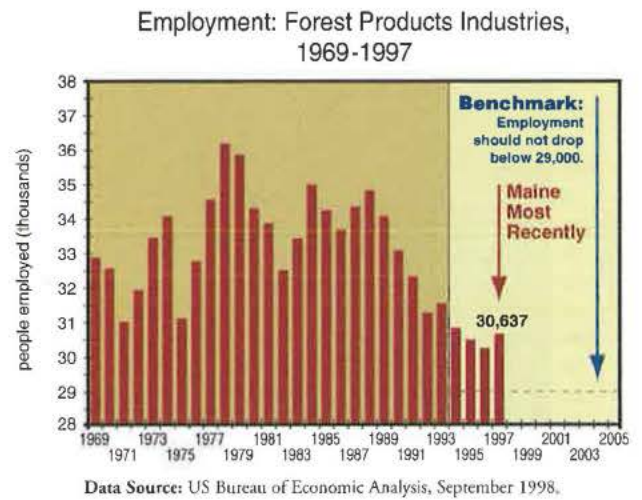
## 52 PAPER AND LUMBER EMPLOYMENT

**Benchmark:** Employment in Maine's forest products industry will not drop below 29,000, a 6% decrease from the 1994 level of 30,813, between now and the year 2000.

**Employment Increases** In 1997, 30,637 people were employed in paper and lumber manufacturing, a 1.4% increase from 1996 employment. This is the first increase in employment in the forest products industry since 1993.

Generally speaking however, employment in this industry is expected to decline, primarily due to increased mechanization. In the late 1980s and early 1990s, there was considerable capital investment in Maine paper-making. The benchmark of holding overall industry employment at 29,000 jobs may be accomplished by adding jobs in those "sub-industries" that manufacture products made out of wood, such as flooring and cabinets.

This data represents all workers who are employed by a business whose primary activities include making paper, lumber, and other wood products. In 1998, the Bureau of Economic Analysis revised the data for previous years.

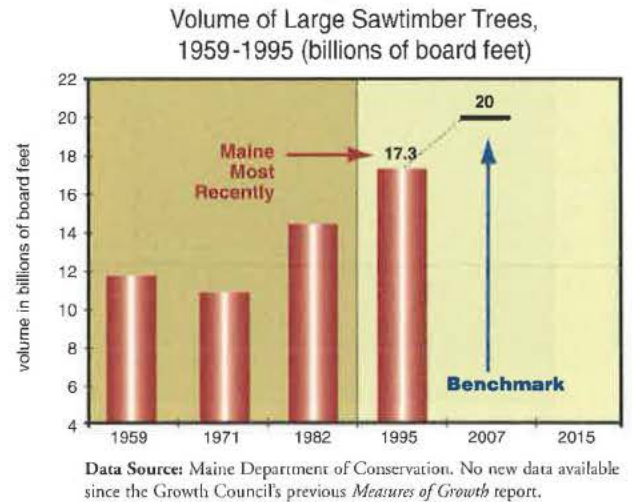


## 53 VOLUME OF LARGE SAWTIMBER TREES

**Benchmark:** The volume of large sawtimber trees in Maine will improve from 17.3 billion board feet in 1995 to at least 20 billion board feet by 2007.

**Volume of Large Trees Increasing** In 1995, there were 17.3 billion board feet (a measure of volume) of standing timber in Maine's forests of sawtimber quality over 15 inches in diameter. Although steadily increasing, the benchmark of increasing the volume to 20 billion board feet of standing large sawtimber trees is ambitious.

To maintain a large volume of this size of tree over time requires that we have a good balance among age classes in the forest. Having a good balance of age classes addresses many other issues of sustainability and biodiversity. Also, forests of mature trees are more appealing to people for recreation. And sawtimber trees represent a wider variety of sales options for the landowner. They can be used for sawtimber, veneer, pulp, and other products.

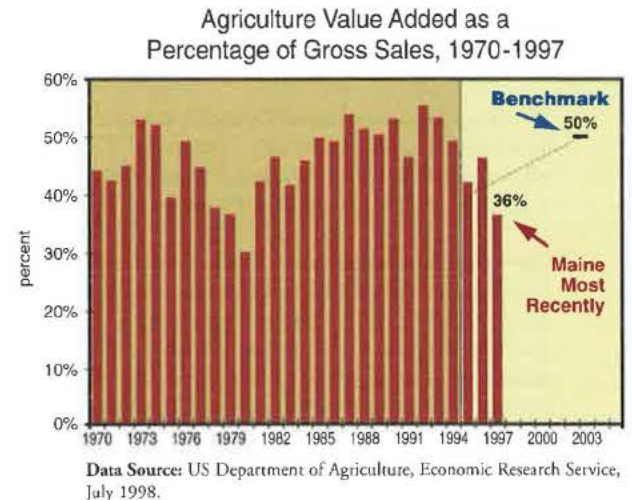


## 54 AGRICULTURE VALUE ADDED

**Benchmark:** Agriculture value added as a percent of gross sales will improve from 42% in 1995 to an average of 50% by 2000.

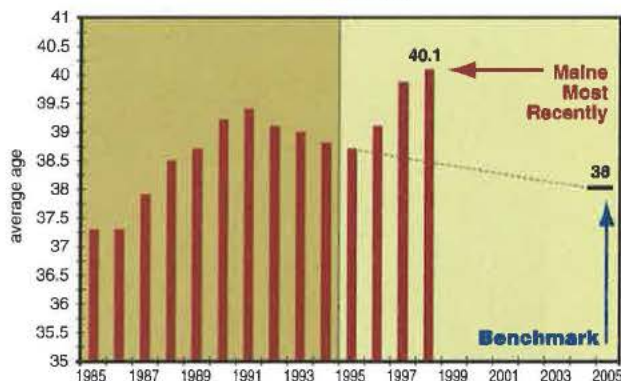
**Agriculture Value Added Declines** In 1997, gross sales of Maine agricultural products totaled \$531.3 million, although just 36% of this (\$191.8 million) is characterized as gross value added. This figure, value added, reflects agriculture's contribution to the Maine and national economies and is the sum of the income from production earned by all factors-of-production. It includes the sum of all net income to farmers and all wages paid to farm workers. This figure was so low in 1997 relative to gross sales that the Growth Council has assigned a red flag to this performance measure.

Even though gross sales from Maine agricultural products are not expected to substantially increase over the next few years, direct economic benefits to Maine from agricultural activity can be increased by adding value. Total output of the Maine agriculture industry has been steadily increasing over the past twenty years, while total amount of land in farms has been slowly decreasing.





Average Age of Commercial Fishers,  
1985-1998



Data Source: Maine Department of Marine Resources.

## 55 COMMERCIAL FISHING



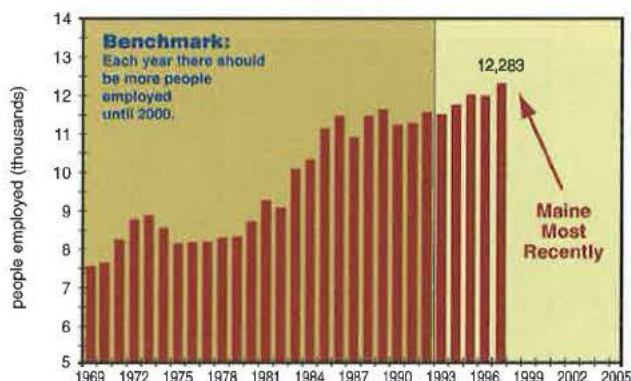
**Benchmark:** The average age of Maine's commercial fishers will decrease from 38.8 years old in 1995 to 38 by 2005.

**Average Age Continues to Increase** In 1998, the average age of Maine fishers was 40.1, a slight increase over the 1997 average age of 39.9.

This measure is a proxy for "perceived opportunities" in the fishing industry. If there is a belief among fishers that the industry holds promise, young people will enter its workforce and drive the average age down. Otherwise, or if there are regulations prohibiting entry into the workforce, the average age of fishers will rise. By either account, a rise in average age is not a good sign for the industry. This performance measure does not suggest that more people should enter the fishing industry, only that if the average age of people in the industry went down, it would be a good sign.

The average age is determined by looking at ages reported on all applications for Maine commercial fishing licenses. The 1998 average age is based on all applications issued through October 20, 1998, which totaled 18,420 licenses issued to 12,586 fishers.

Employment: Hotels and Lodging,  
1969-1997



Data Source: US Bureau of Economic Analysis, September 1998.

## 56 TOURISM EMPLOYMENT



**Benchmark:** Employment in Maine's hotel and lodging industry, 11,481 jobs in 1993, will improve each year until 2000.

**Employment Steadily Increasing** In 1998, 12,283 people were employed in Maine businesses principally engaged in the hotel and lodging industry, a 2.8% increase over 1996 levels.

Employment trends in this industry are indicators of tourist activity, given that hotels and other lodging establishments are used almost exclusively by tourists.

In reality, many more people are working in businesses that cater to tourists than these numbers reflect; however, this measure serves as a proxy for employment trends in the tourism industry overall. It is estimated that in 1996, tourists spent \$3.2 billion in Maine. Tourism activity is very important to the health of the state economy because it positively affects so many other industries and because it is a net importer of revenue into our economy.

In 1998, the Bureau of Economic Analysis revised the data for previous years.

## ACKNOWLEDGMENTS

The Maine Economic Growth Council had another good year under the leadership of Co-Chairs Chellie Pingree and Kevin Gildart. Among other accomplishments, *Measures of Growth*, 1998 won a national Best in Class Award from the American Economic Development Council.

The Maine Economic Growth Council is administered by the Maine Development Foundation which is an independent, nonprofit, economic development corporation created by the legislature in 1978. MDF's mission is to promote Maine's long-term economic growth by building the state's leadership capacity and providing a trusted, non-partisan common ground for private and public sector leaders to pursue new ideas and solve problems. The Growth Council receives a small state appropriation which is matched by MDF with contributions from its corporate members.

Craig Freshley researched and authored this report. Henry Bourgeois facilitated meetings and directed the content of this report. Candy Wells and other staff at the Maine Development Foundation worked on various aspects of producing the report. Paul Foley was a graduate intern on the project. Market Decisions, Inc. performed the statewide surveys of citizens and businesses. J.S. McCarthy printed the report on 50% recycled paper (30% post-consumer waste). The cover of the report is 100% de-inked post-consumer waste, processed chlorine-free, manufactured by Fraser Paper.

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



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State Senator

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Sunrise County Economic Council

**Eloise Vitelli**  
Maine Centers for Women,  
Work and Community

## 1998 SUMMARY OF GOLD STAR AWARDS AND ADOPTED BENCHMARKS

### Gold Star Awards

Colony Hotel  
UNUM  
MBNA  
ICT Group  
Lafayette Hotels  
Cobscook Bay Clam Restoration Project  
Department of Marine Resources  
Maine Higher Education Council  
Technology Systems, Inc.  
Maine Medical Center Research Inst.  
St. Lawrence & Atlantic Railroad Co.  
BlueCross BlueShield of Maine  
Pratt & Whitney

54 - Tourism Employment  
20 - Gender Income Disparity  
22 - Income Disparity by County  
22 - Income Disparity by County  
54 - Tourism Employment  
46 - Water Quality of Marine Areas  
46 - Water Quality of Marine Areas  
18 - Business Opinion of Universities and Colleges  
08 - Technology Resources  
08 - Technology Resources  
40 - Modes of Freight Transport  
31 - Cigarette Smoking  
17 - Employer-Sponsored Training

**Gold Star Awards  
are presented  
for actual  
accomplishments  
contributing to  
Maine's progress  
on specific  
performance  
measures.**

### Benchmarks Adopted

Central Maine Power  
Maine Centers for Women, Work and Community

Western Mountains Alliance

Maine Center for Economic Policy

Pierce Atwood  
Eastern Maine Technical College  
The Nature Conservancy  
Lewiston-Auburn Economic Growth Council  
Maine International Trade Center  
Maine Science & Technology Foundation  
Maine Wood Products Association

The University of Maine System

Cumberland County Private Industry Council

42 - Cost of Electricity  
20 - Gender Income Disparity  
28 - Citizen Participation in Community Activities  
22 - Income Disparity by County  
23 - Employment Disparity by County  
19 - Household Income Disparity  
22 - Income Disparity by County  
26 - Jobs that Pay a Liveable Wage  
37 - Tax Fairness  
04 - New Business Starts  
16 - Citizen Opinion of Educational Opportunities  
47 - Conservation Lands  
26 - Jobs that Pay a Liveable Wage  
07 - International Exports  
08 - Technology Resources  
49 - Paper and Lumber Value Added  
50 - Paper and Lumber Employment  
12 - Associate's Degrees  
13 - Bachelor's Degrees  
15 - Lifelong Learning  
26 - Jobs that Pay a Liveable Wage

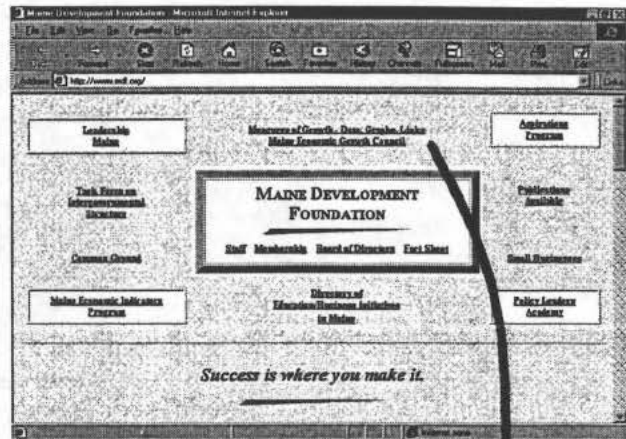
**Organizations  
adopt bench-  
marks as a public  
pledge to imple-  
ment policies and  
programs that  
will help Maine  
achieve the spe-  
cific benchmark  
that they have  
adopted.**



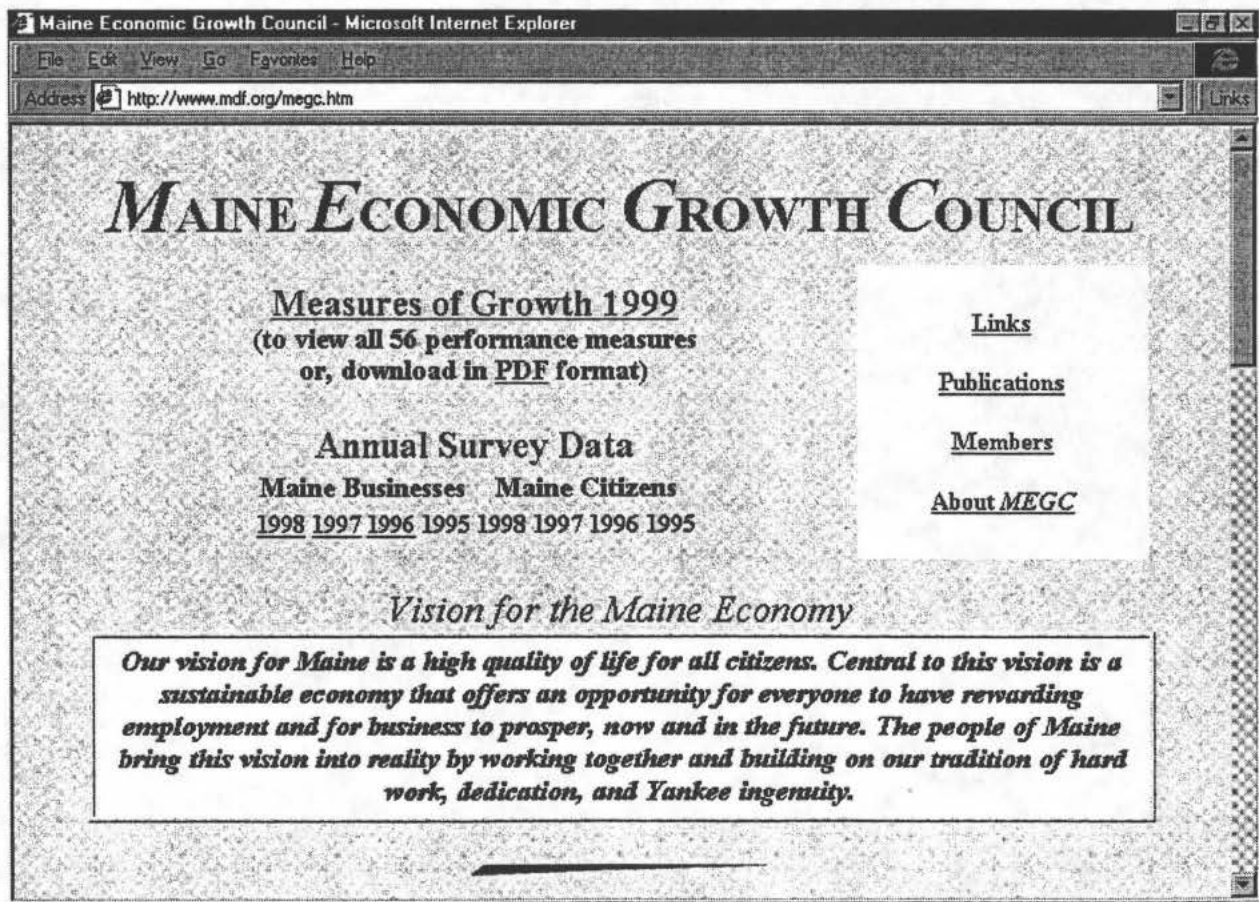
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