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# MEASURES OF GROWTH 1997



SUMMARY

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

Third Report of the Maine Economic Growth Council

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Prepared by the  
MAINE DEVELOPMENT FOUNDATION

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# Maine Economic Growth Council 1996

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## *Acknowledgments*

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It was an active year for the 19 members of the Maine Economic Growth Council. Co-Chairs Chellie Pingree and Kevin Gildart worked to promote the work of the Council and guide its agenda. Members participated in council meetings, goal-area workshops, committee meetings, and several forums at which Measures of Growth, 1996 was presented and discussed.

The Maine Economic Growth Council is administered by the Maine Development Foundation. Craig Freshley was the primary researcher and author of this report. Henry Bourgeois facilitated meetings and directed the report's content. Lucien Gosselin was a policy advisor. Claire Breton was a research and production associate. In addition, Michael Hughes was a graduate intern on the project. Dr. Charles Colgan provided economic analysis and policy advice. Market Decisions, Inc. performed the statewide surveys of citizens and businesses. J.S. McCarthy printed the report.

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.



# 1997 Performance Measures of the Maine Economic Growth Council

## FUNDAMENTAL PERFORMANCE MEASURES pg.6

- ⬇ 1 Gross State Product
- ➡ 2 Personal Income
- ⬇ 3 Employment

## INNOVATIVE BUSINESSES pg.6

- ⬆ 4 New Business Starts
- ⬆ 5 Job Growth Among New Businesses
- ⬆ 6 New Products or Services
- ⬆ 7 International Exports
- ⬆ 8 Technology Resources
- ➡ 9 Manufacturing Productivity
- ⬆ 10 On-the-Job Injuries

## SKILLED AND EDUCATED WORKERS pg.8

- ⬆ 11 High School Diplomas
- 12 Associate's Degrees
- ⬆ 13 Bachelor's Degrees
- 14 Graduate Degrees
- ⬆ 15 Citizen Participation in Continuing and Adult Education
- ➡ 16 Citizen Opinion of Training and Education
- ⬆ 17 Employer-sponsored Training for Front Line Employees
- ➡ 18 Business Opinion of Universities and Colleges

## VITAL COMMUNITIES pg.10

- ⬆ 19 Income Disparity Among Counties
- 20 Employment Disparity Among Counties
- 21 Income Disparity Among People
- ⬆ 22 Voter Turnout
- ➡ 23 Citizen Participation in Community Activities
- ➡ 24 Business Participation in School and Civic Events
- ➡ 25 Jobs that Pay a Liveable Wage
- 26 Women's Wages as a Percent of Men's Wages
- 27 Occupational Distribution of Women and Minorities
- 28 Employment Among People with Disabilities
- ➡ 29 Discrimination in the Workplace
- ⬆ 30 Infant Mortality
- ⬆ 31 Cigarette Smoking
- ➡ 32 Crime

## EFFICIENT GOVERNMENT pg.15

- ➡ 33 Citizen Satisfaction with State Government
- 34 Business Satisfaction with State Government
- ⬇ 35 Fiscal Stability and Balanced Revenue
- ⬇ 36 State and Local Tax Burden
- ⬇ 37 Tax Fairness

## STATE-OF-THE-ART INFRASTRUCTURE pg.17

- ⬆ 38 Condition of Roads
- ⬆ 39 Condition of Bridges
- ⬇ 40 Modes of Freight Transport
- ⬆ 41 Business Use of Advanced Communications Technology
- ⬆ 42 Cost of Energy
- 43 Access to Energy Sources

## HEALTHY NATURAL RESOURCES pg.19

- ⬆ 44 Air Quality
- ➡ 45 Water Quality of Lakes
- ➡ 46 Water Quality of Rivers
- ⬆ 47 Water Quality of Marine Areas
- ⬆ 48 Conservation Lands
- ⬆ 49 Industrial Use of Toxic Chemicals
- ⬆ 50 Paper and Lumber Value Added
- ⬆ 51 Paper and Lumber Employment
- ⬆ 52 Volume of Large Sawtimber Trees
- ➡ 53 Farming and Food Employment
- ⬆ 54 Agriculture Value Added as a Percent of Gross Sales
- ⬆ 55 Commercial Fishing
- ⬆ 56 Tourism Value Added
- ⬆ 57 Tourism Employment

### Key

- ⬆ We have moved toward the benchmark.
- ⬇ We have moved away from the benchmark.
- ➡ No significant movement either way.
- Data inconclusive or too old.
- ★ Exceptional performance. Very high national standing and/or dramatic recent improvement.
- ⬆ Needs attention. Very low national standing and/or dramatic recent decline.



## 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 healthy and safe place.

### 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 the 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.



# How Are We Doing?

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To achieve long term economic growth, we work toward 13 goals in 6 areas. To measure our progress, we monitor 57 performance measures and set a benchmark for each. Here is a brief overview of how we have progressed over the past year.

## 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 as a whole. The wealth of Maine's people, as measured by personal income, is holding steady although Maine is among the poorest third of all states nationally.

## INNOVATIVE BUSINESSES

There are several very good indicators that Maine businesses are innovative and actively contributing to long term economic growth. International exports have increased dramatically and most Maine companies are developing new products or services. On-the-job injuries and their associated costs have decreased dramatically in recent years. There has been a healthy increase in the number of new businesses started although the slow pace at which new businesses are adding new jobs is troubling. Also very troubling is Maine's relatively low rank on technology resources.

## SKILLED AND EDUCATED WORKERS

A skilled and educated workforce is crucial to long term economic growth. Many business leaders believe that the skill and education levels of Maine workers are relatively low by national comparisons. Many more people have a high school education in Maine than in most other states, and likewise with associate's degrees, but the number of Maine people with a bachelor's degree is seriously lagging. People are attending adult and continuing education courses at increasing rates, although only a third of Maine people think that there is adequate availability of such courses.

## VITAL COMMUNITIES

The good signs of community vitality are that Maine communities are far safer than most in the nation. Maine people vote for their elected officials at much higher than national rates and almost half of Maine people and businesses participate in community activities. The health of Maine people is generally good as evidenced by the low infant mortality rate,

but the extremely high rate of smoking is disturbing. Of chief concern are the many disparities in Maine. The income gap between wealthy and poor people is growing as is the gap between Maine's wealthiest and poorest counties. Among the poor counties there are few signs of improvement. Although improving slightly, there is also a serious gender gap in Maine. Also of concern is that 20% of the jobs in Maine are not paying a liveable wage.

## EFFICIENT GOVERNMENT

While Maine's tax system is regarded as very fair by national standards, the amount of taxes that Maine people pay is quite high relative to other New England states. And only a third of Maine people, and a fifth of Maine businesses, think that they are getting good government services for what they pay in taxes.

## STATE-OF-THE-ART INFRASTRUCTURE

Maine's roads and bridges are in moderate condition, although they are overburdened. By contrast, Maine's seaports, rail lines, and airports are underutilized. Cost of energy in Maine is significantly higher than national averages and it is troubling that all Maine counties don't have access to all types of energy sources. Business use of the Internet tripled in the past year.

## HEALTHY NATURAL RESOURCES

While Maine's natural resources appear relatively healthy, the industries that depend on those resources are not. Air and water quality are at risk but seem to be improving. Amount of land under conservation has increased considerably, and the quality of Maine's commercial forests has improved. However, growth in Maine's paper and lumber industries is seriously lagging behind US growth rates. Farming and commercial fishing also appear to be in jeopardy. Employment seems to be holding steady for those who work in hotels and lodging establishments, although economic activity generated by tourists in Maine is in decline relative to tourist activity in other states.



## INTRODUCTION

Important decisions are made every day in Maine that affect Maine's economic future: decisions about how to spend tax revenues and how to regulate individual and corporate behavior; decisions about our children's education; and private sector decisions about how and where to invest. Are these decisions coordinated? Do they seek to achieve a common vision and common goals? And, how do we know if the decisions we are making are actually moving us toward our vision and goals?

To measure and articulate progress towards a commonly shared vision and set of goals is what the Growth Council's work is all about. The benefits are many. Among other things, this work serves as a forum for collective values and a common knowledge base for making good decisions.

*Measures of Growth, 1997* sets forth a vision for Maine's long term economic growth, thirteen goals to achieve the vision, and 57 performance measures and benchmarks to measure progress towards the goals. Building on three years of work, this report presents the most comprehensive assessment ever of Maine's prospects for long term economic growth. *Measures of Growth, 1997* is the third report of the Maine Economic Growth Council and, for the first time, provides trend analysis and bold statements about how we are progressing.

Over 300 state and community leaders representing government, education, business, labor, the environment and economic development worked with the Growth Council in 1996 to refine these benchmarks, collect data, and analyze the trends.

The nineteen member Growth Council was established by the Legislature in 1993 and is administered by the Maine Development Foundation. The Council has a very diverse membership appointed jointly by the Governor, the Speaker of the House, and the President of the Senate. An annual state appropriation, matched by the foundation's private sector members, finances the work of the Growth Council.

## ASSESSING PERFORMANCE

Although the Growth Council is relatively young, this year we have trend information for almost every performance measure. As the effort matures, we will be able to make more definitive statements about Maine's progress; but even at this stage, we have tried to identify the trend in almost every case using symbolic arrows. We have also tried to call attention to a few particularly good and particularly troubling performance measures by assigning gold stars and red flags. Our primary purpose here is to stimulate thought and discussion. As you

think about the data presented in this report, and your own experience with the Maine economy, we invite you to make your own assessment of those things which warrant gold stars and red flags.

**Arrows** - For each performance measure, we look at the direction of our movement from the baseline year (when we started reporting - signified by change in background color on each graph) to now and objectively assign arrows as follows: An UP arrow means that we have moved toward the benchmark. A DOWN arrow means that we have moved away from the benchmark. A HORIZONTAL arrow means that there has been no significant movement toward or away from the benchmark (in cases of citizen or business survey data, 'significant' means a movement of at least three percentage points). NO ARROW means either that we don't have enough data to meaningfully assess the trend or that the data is simply too old (for instance, some that rely on the decennial Census). In instances where this is our first year of reporting on a performance measure, we assign an arrow based on the most recent trend, if we have the data.

**Gold Stars and Red Flags** - We have subjectively assigned gold stars and red flags to 15 performance measures. We have assigned GOLD STARS in instances of very high national standing and/or dramatic recent improvement. Gold stars call attention to very positive indicators of long term economic growth. We have assigned RED FLAGS in instances of very low national standing and/or dramatic recent decline. Red flags highlight indicators that need significant attention.

For each performance measure there is a statement of the benchmark (it says where we were when we started reporting and what we want to achieve) and a brief analysis. A graph is shown for all performance measures except those for which our data is too limited.

## CHARACTERISTICS OF THE WORK

**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 Business, 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 Inter-related** 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, 1997* is one of the most comprehensive. The Maine Chamber and Business Alliance's report, *Charting Maine's Economic Future*, the Maine Science and Technology Foundation's *Science and Technology strategy*, and the state of Maine's *Economic Development Strategy* are closely linked to the Growth Council's work, as is the Environmental Priorities Project, the Maine Human Resource Development Council, and the Learning Results work of the state legislature, among others.

**Work in Progress** In many respects, the work of the Growth Council is just beginning. What we really want is to be able to look at long term trends on issues critically important to Maine. We are beginning to assemble data now so that in future years we will be able to see those long term trends. The work of the Growth Council is a work in progress because the economy is dynamic, and we are always looking to better understand changing trends.

**Using the Report** State legislators may use the 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 towards our long term vision.

This report is not a strategy or an action plan. It is not the intent of the Growth Council to prescribe actions to agencies or evaluate programs, but rather to provide overall direction and measurements of progress.

## VISION, GOALS, PERFORMANCE MEASURES, AND BENCHMARKS

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 towards 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 are **benchmarks**: targets of where we would like to be on each measure at a specific time in the future.

In June 1994, the Growth Council adopted a vision involving over 400 community, state, and business leaders. In 1995, six 20-member goal committees recommended over 100 goals and several hundred performance measures for consideration. The Growth Council set priorities and narrowed the focus with *Measures of Growth, 1996*, which was widely distributed and scrutinized by over 300 leaders.

*Measures of Growth, 1997* reflects what is now a fairly well-known and approved slate of performance measures and benchmarks. For each performance measure, experts and key stakeholders have been actively involved in providing and reviewing the data. Our 1996 surveys tell us that 39% of Maine people and 58% of Maine businesses know about the Maine Economic Growth Council.

## 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. Some just 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 comes from a wide variety of sources, primarily (1) federal agencies (a fair amount via the world wide web), (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 totally on data generated by our annual statewide surveys of Maine businesses and citizens. 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 536 of them, and has a sampling error of +/- 6%.

Data sources for all the performance measures are at the end of this summary report. Links to data sources on the world wide web can be found at <http://www.mdf.org>.



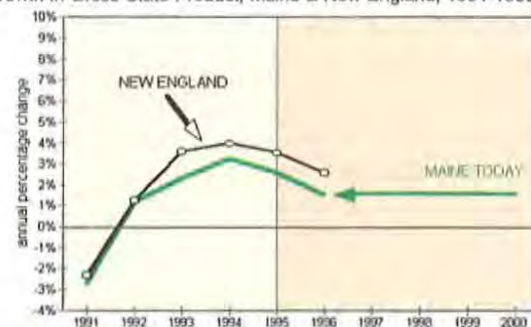
## 1 Gross State Product

**Benchmark:** Maine's gross state product will grow faster than the New England gross state product, on average, between 1995 and 2000.

### Maine Economy Linked to New England

In 1996, Maine's Gross State Product was roughly \$30.423 billion, up 1.5% from 1995 in constant dollars. This represents about 7% of the total New England economy, which grew 2.6% from 1995-1996. Maine's economy has grown slower than the New England economy for 5 out of the last 6 years. Both Maine and New England are experiencing very moderate but positive growth.

Real Growth in Gross State Product, Maine & New England, 1991-1996



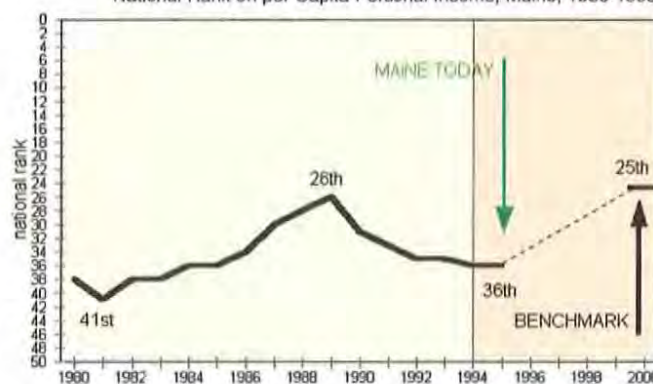
## 2 Personal Income

**Benchmark:** Maine's national rank among the 50 states on per capita income will improve from 36th in 1994 to 25th by 2000.

### Per Capita Income Continues to Grow

Although Maine's rank among the 50 states has slipped in recent years, to 36th in 1995, the state is not as poor, relative to other states, as it was in the early eighties. In 1995, Maine's income per capita (total income earned in the state divided by the state's population) was \$20,105 compared to the New England figure of \$27,388 and the U.S. average of \$21,696. New England and Maine are growing at about 4% per year. Recently, Maine's growth in per capita income has been outpacing New England's growth.

National Rank on per Capita Personal Income, Maine, 1980-1995



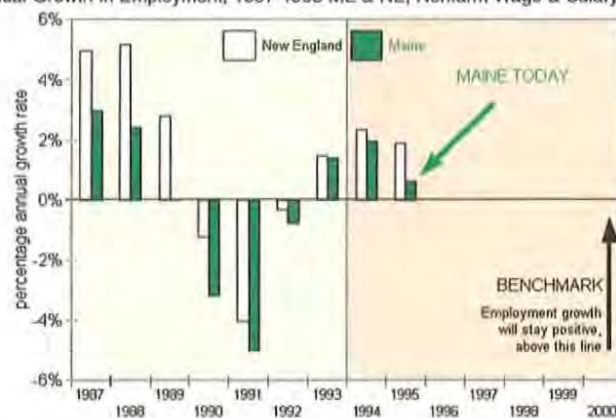
## 3 Employment

**Benchmark:** The number of Maine people employed will increase each year from 1994 to 2000.

### Employment Steadily Growing

For each of the past three years, the number of Maine people employed has increased, growing an average of just under 2% per year. Over the same time period, employment in New England as a whole has increased at a faster pace of about 4%. In 1995, roughly 541,600 Maine people were employed, as measured in this way. These figures represent all full and part time employment, but do not include farm workers or self-employed people. The health services, social services, and business services sectors have added the most jobs in the past 5 years. Maine's unemployment rate during 1996 was just over 5%.

Annual Growth in Employment, 1997-1995 ME & NE, Nonfarm Wage & Salary



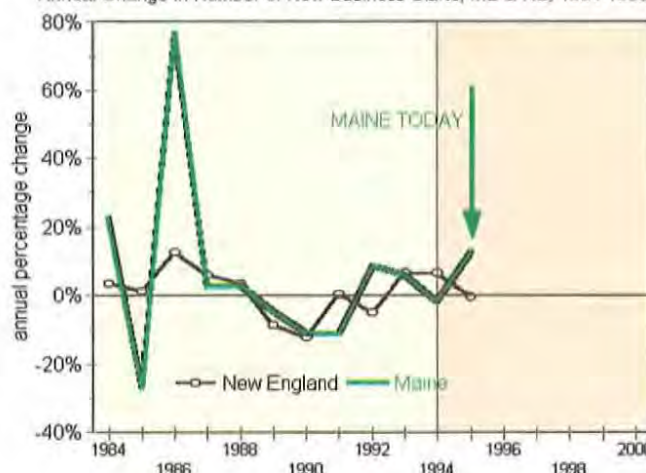
## 4 New Business Starts

**Benchmark:** Annual growth in number of new Maine businesses started will outpace annual growth in number of new New England businesses started from 1994 to 2005.

### Currently Doing Well, but Tentative

From 1995 to 1996, the number of new businesses started in Maine went from 3,982 to 4,476, an increase of about 12%. For the same period, the number of new businesses started throughout New England did not increase but remained steady. However, Maine does not have a solid history of out-pacing New England on this measure. This is an indicator of economic optimism. Although it does not consider business failures, it is a positive indicator of the availability of investment capital and perceived economic opportunities. The data presented here counts only new businesses started that have at least one employee, other than the owner.

Annual Change in Number of New Business Starts, ME & NE, 1984-1995





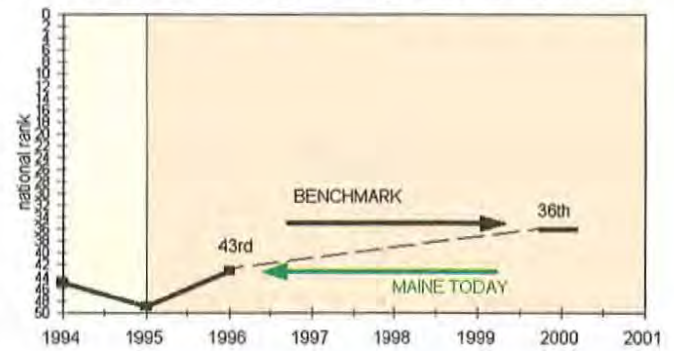
## 5 Job Growth Among New Businesses

**Benchmark:** Maine's national rank among the 50 states on job growth among new businesses will improve from 49th in 1995 to 36th by 2000.

### Low Nationally, but Improving

This performance measure gets a red flag because Maine is doing so poorly on this measure compared to other states. Although near the bottom of the pack, Maine experienced relatively strong job growth among new businesses in 1996. 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.

Maine's National Rank on Job Growth Among New Businesses, 1994-1996



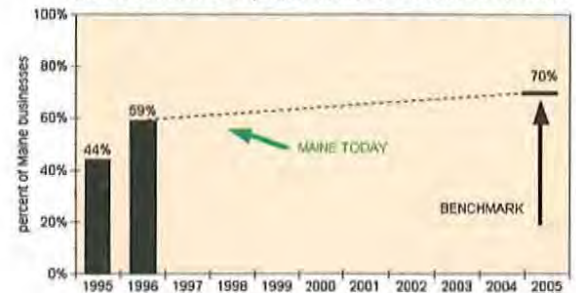
## 6 New Products or Services

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

### A Positive Trend

In 1996, 59% of Maine businesses reportedly developed new products or services, an increase of 34% from last year, when just 44% reported new products or services. Given the importance of flexibility and diversity in today's economy, new product and service development is fundamental to economic growth.

Number of Maine Companies with New Products or Services



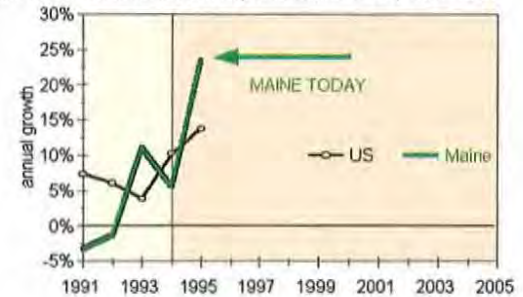
## 7 International Exports

**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.

### Strong Growth Recently

In 1995, Maine companies exported \$1.49 billion worth of products, an increase of 23% from 1994. This data represents the value of products exported from Maine to other countries, but excludes services. Over a third of Maine's exports in 1995 went to Canada.

Annual Growth of International Exports, Maine & US, 1991-1995



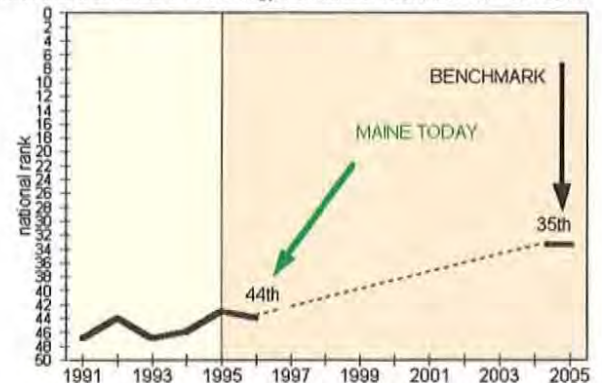
## 8 Technology Resources

**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 gets a red flag because Maine is typically ranked so low among the 50 states. In 1996, Maine was ranked 44th. Generally, over the past five years, Maine's national rank has improved although it declined slightly this year. 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.

National Rank on CFED's Technology Resources Index, Maine, 1991-1996



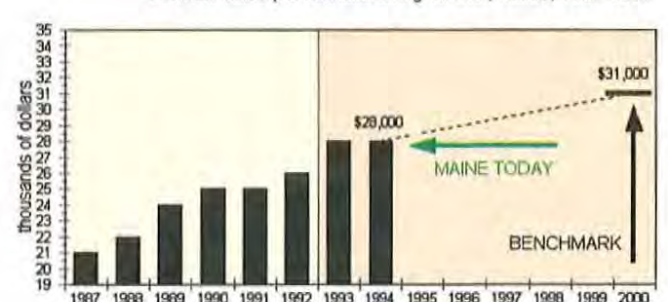
## 9 Manufacturing Productivity

**Benchmark:** The average value of manufacturing products produced by Maine workers will increase from \$28,000 per year in 1993 to \$31,000 per year by 2000.

### Productivity Steadily Increasing

In 1993, the average Maine worker in the manufacturing sector produced about \$28,000 of product, almost the same amount as in 1994. Productivity as measured here is a combination of actual worker productivity and capital investment, and a breakdown of these components

Product Value per Manufacturing Worker, Maine, 1987-1994





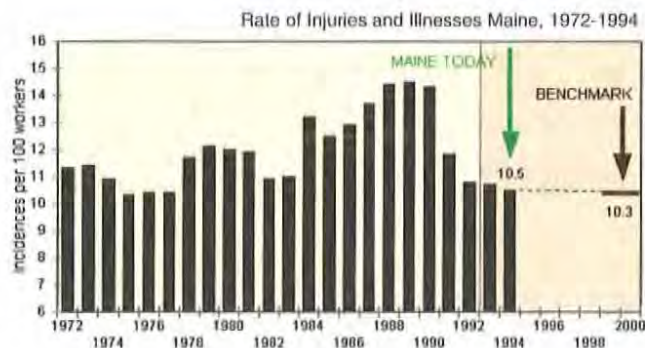
is extremely difficult. A national comparison is not presented here because although Maine workers have an excellent reputation nationally for their productivity, this is not apparent when we compare Maine's productivity nationally because of Maine's unique mix of types of manufacturing operations and relatively low levels of capital investment.

## 10 On-the-Job Injuries

**Benchmark:** Maine's rate of on-the-job injuries per 100 workers will decrease from 10.7 in 1993 to 10.3 by 2000.

### Strong Improvement

This performance measure gets a gold star because there has been a 27% decrease over the past five years in on-the-job injuries, due in large part to the efforts of Maine businesses to improve workplace safety. In 1994, there were 10.5 injuries for every 100 workers. Although the 1994 rate nationally was 8.4 injuries per 100 workers, it is unreasonable to expect Maine to achieve this rate because the particular mix of occupations in Maine is quite different, and slightly more dangerous, than for the nation as a whole. Workplace safety is an important component of long term economic development because injuries translate directly into increased costs. The data here includes all types of work related injuries and illnesses required to be recorded under federal law.



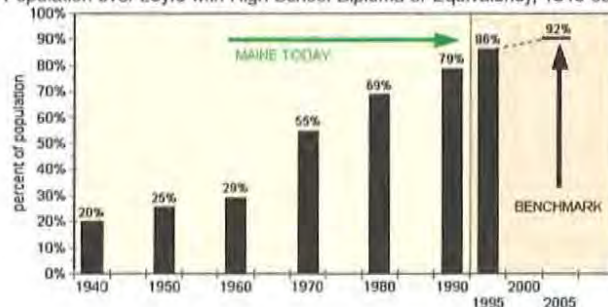
## 11 High School Diplomas or Equivalency

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

### Maine Consistently Above National and New England Averages

In 1995, 86.2% of Maine people over the age of 25 had completed high school. This compares with a national rate of 82% and a New England rate of 85%. Since 1970, Maine has outpaced the nation on this performance measure.

% ME Population over 25yrs with High School Diploma or Equivalency, 1940-95



## 12 Associate's Degrees

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

### Maine Rates are Good, but Need Improving

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 6.5% of New England people and 6.2% of the nation as a whole. This data includes 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 very good historic data because the census changed the data methodology in 1980 and this is only reported every 10 years.

## 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 the New England percentage by 2005.

### Maine is Lagging Behind New England and the Nation

In 1995, 21.5% of Maine people over the age of 25 had at least a Bachelor's Degree (175,225 people), compared with a national rate of 23%. For the New England states as a whole, the rate is an impressive

Percent of Population over 25yrs with Bachelor's Degree, Maine, 1940-1995





30.5% for 1995, reflecting this region's reputation for leading the nation in higher learning. The level of educational attainment of Maine workers is very important to maintain a competitive advantage.

## 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 or Ph.D. (known collectively as graduate degrees). This amounted to 53,306 people. Nationally, 7.2 percent of the over age 25 population had graduate degrees in 1990, and in New England, the rate was 8.2%. Graduate degrees are important to many high-tech areas of the economy and fundamental to business innovation. We don't have very good historic data because the census changed the data methodology in 1980 and this is only reported every 10 years.

## 15 Citizen Participation in Continuing and Adult Education

**Benchmark:** The percentage of Maine people attending continuing or adult education courses will improve from 54% in 1995 to 70% by 2000.

### Participation on the Increase

In 1996, 57% of Maine citizens said that they participated in some form of continuing or adult education. This is up 3 percentage points from last year's figure of 54%. Maine citizens were asked if people had attended an educational seminar, program, or course in the past 12 months. This is a measure of lifelong learning, regarded as essential to a workforce capable of responding to changing needs of employers.

% of Citizens Attending Educational Seminar, Program, or Course



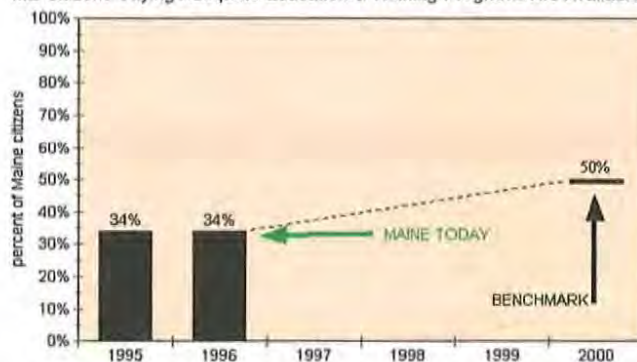
## 16 Citizen Opinion of Training and Education

**Benchmark:** The number of citizens who agree that there are adequate public and private programs will increase from 34%, the 1995 figure, to 50% by the year 2005.

### No Change in Perceptions of Education Availability

In 1996, 34% of Maine people agreed that there are adequate education and training programs in Maine. The same number of people responded the same way last year. Maine people want training and education which adequately prepares them for desired jobs. The 1995 and 1996 Surveys of Maine Citizens asked the extent to which people agreed 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." This data reflects all those who responded that they agreed or strongly agreed.

ME Citizens Saying Adequate Education & Training Programs Are Available



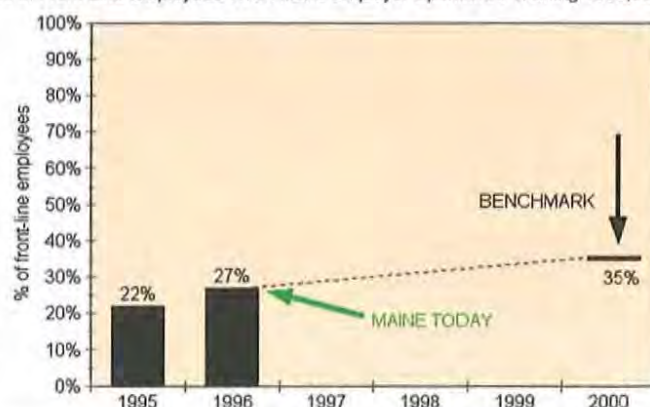
## 17 Employer-sponsored Training for Front Line Employees

**Benchmark:** The percentage of front-line Maine employees who attend employer-sponsored training will improve from 22% in 1995 to 35% by 2000.

### Employer-Sponsored Training on the Increase

In 1996, 27% of Maine workers earning less than \$35,000 reportedly participated in training that was paid for by their employers, up from the 1995 figure of 22%. There is a growing concern that 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, not just managers and other salaried employees.

% of Front Line Employees Who Attend Employer Sponsored Training 1995,96





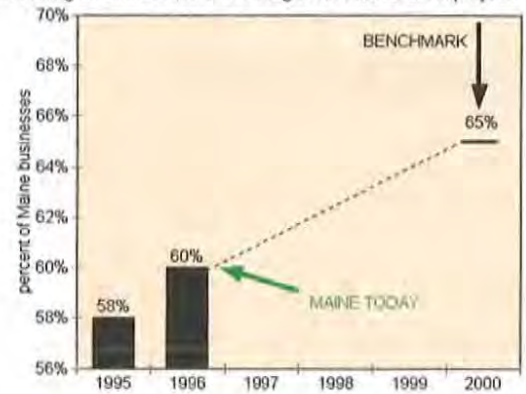
## 18 Business Opinion of Maine's Universities and Colleges

**Benchmark:** The percentage of Maine businesses who think that the universities and colleges are doing a good job will improve from 58% in 1995 to 65% by 2000.

### Businesses say Universities and Colleges are Improving

Maine businesses were asked to rate the quality of colleges and universities for meeting the continuous education needs of their employees. In 1996, 60% of Maine businesses said the quality was good, very good, or excellent. This is an improvement over the 1995 figure of 58%. There is a growing concern that many good quality jobs are being filled by people recruited from out-of-state colleges and universities.

Business Rating of Universities and Colleges for Needs of Employees



## 19 Income Disparity Among Counties

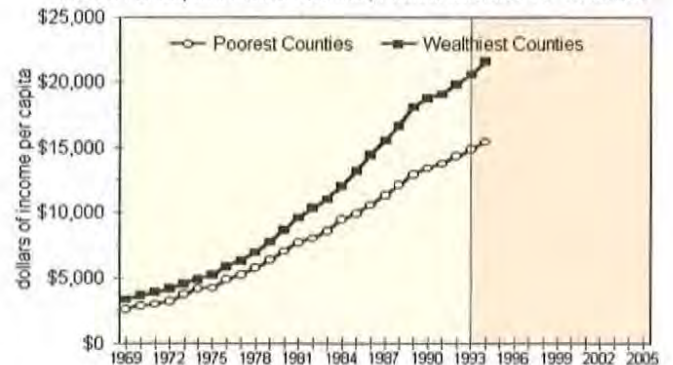
**Benchmark:** Average per capita income in Maine's poorest counties will improve from 70% in 1993 to 75% of per capita income of the wealthiest counties by 2005.

### A Modest Gain this Year

This performance measure gets a red flag because the income gap between Maine's wealthiest and poorest counties has steadily increased since the 1970s. In 1994, the average per capita income in Maine's four poorest counties was \$15,423, about 71.5% of what it was in the four wealthiest counties: \$21,559. This represents an improvement over 1993 when the poorest counties were at about 70% of the wealthiest counties. In 1996 the four poorest counties were Washington, Piscataquis, Waldo, and Aroostook; and the four wealthiest were Cumberland, Lincoln, Knox, Hancock.

Geographic disparities in the wealth of Maine people are detrimental to the economy. Recognizing that there is also disparity among counties with regard to cost of living, the benchmark has been established at 75% rather than 100%. This does not imply that Maine people receive different pay for the same type of job, depending on location. To minimize the disparity, per capita income in the poorest counties should be raised.

Income Per Capita in Maine Counties, Poorest Counties Vs. Wealthiest



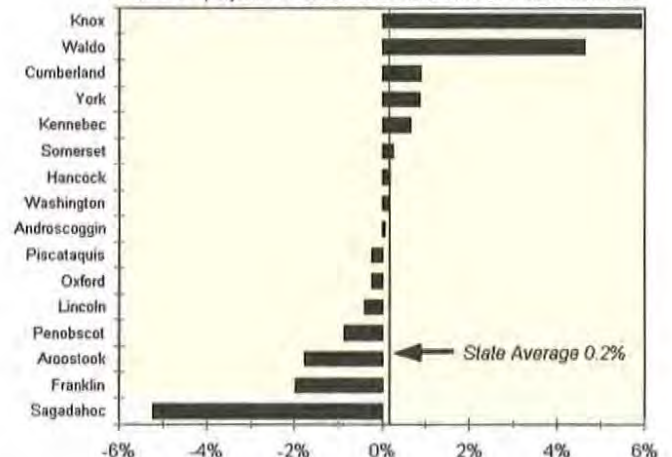
## 20 Employment Disparity Among Counties

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

### Job Growth Lacking Most 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, Androscoggin. Among these 10 counties, only 3 experienced job growth this year at a better rate than the state average (which was +0.2% as measured in this way). 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 and charts employment growth from the first quarter of 1995 to the first quarter of 1996.

Rate of Employment Growth from 1995-1996 in Maine Counties





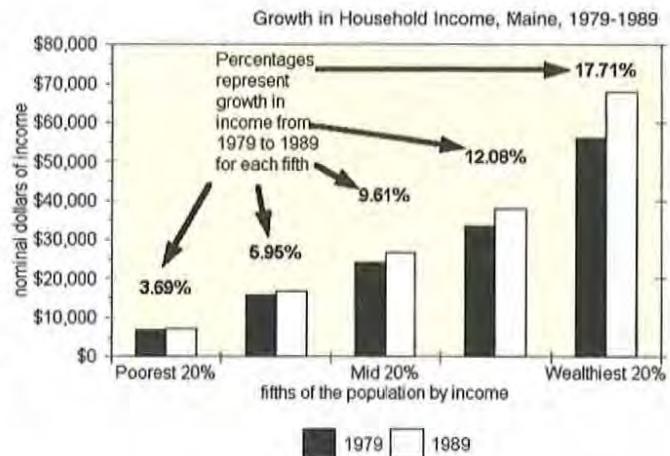
## 21 Income Disparity Among People

**Benchmark:** The 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 from 1990 to 2000.

### Income Disparity Increasing, but Assessment Dated

This performance measure gets a red flag because income disparity between Maine's wealthiest and poorest people has been steadily increasing. During the 1980's, the last time period for which we have data, income of the wealthiest fifth of Maine people grew dramatically faster than the income of the poorest fifth. This measure shows the population divided into fifths by income and the growth in income of the wealthiest fifth relative to the growth in income of the poorest fifth. The disparity will only be reduced if the incomes of poor people rise faster than incomes of wealthy people.

Disparities in income and opportunity threaten the long term stability of the economy. No new data is available for reporting this year.

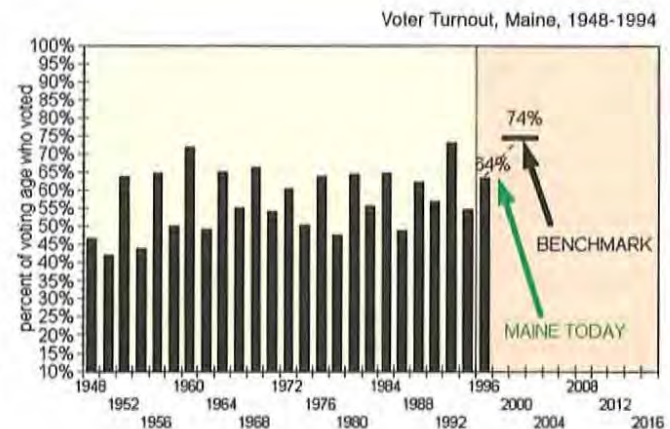


## 22 Voter Turnout

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

### Maine Consistently High Nationally, but Room for Improvement

This performance measure gets a gold star because Maine typically leads the nation in voter turnout. In the 1996 election, an estimated 64% of Maine people over age 18 actually voted for the office of President of the United States according to Maine's Secretary of State. A Washington D.C. group estimates that this was the number one turnout in the nation. They estimate that Maine was first in 1992 also, while polls conducted by the Census Bureau suggest that Maine was 3rd in 1992. Voter turnout is a good indicator of participation in democracy and one of several indicators of community vitality.

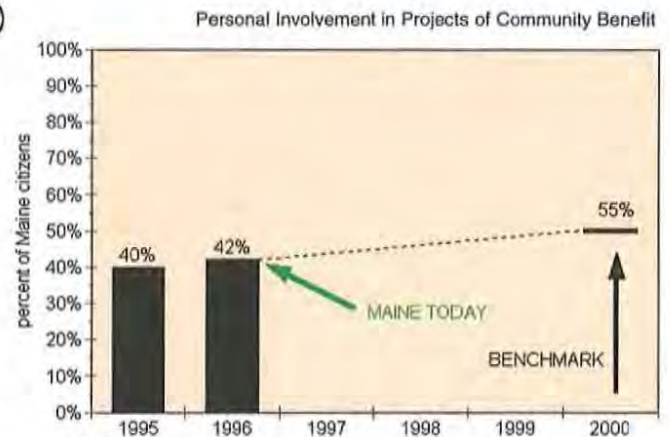


## 23 Citizen Participation in Community Activities

**Benchmark:** The percentage of Maine people who have participated in a community project in the past year will improve from 40% in 1995 to 55% by 2000.

### Involvement in Community Projects Improving Slightly

In 1996, 42% of Maine citizens reportedly participated in a project of community benefit, up slightly from the 1995 figure of 40%. Participation in community projects is an excellent indicator of community vitality and it bodes well for long term economic growth. Citizens were asked the extent to which they agreed to the following statement: "I make time each year to involve myself in a project that benefits my community." The data for this performance measure represents the percent who said they agreed or strongly agreed with the statement.

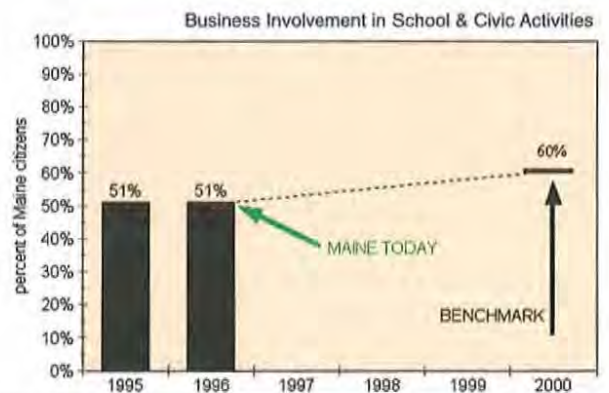


## 24 Business Participation in School and Civic Events

**Benchmark:** The percentage of Maine businesses who participated in a school or civic event in the past year will increase from 51% in 1995 to 60% by 2000.

### Business Participation in Communities Unchanged

In 1996, 51% of Maine businesses participated in local school and civic events, the same percentage as in 1995. Partnerships between businesses and schools or other community groups often result in benefits for the community and the business. It is a sound avenue towards 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 represents those businesses that responded very well or well.

## 25 Jobs that Pay a Liveable Wage

**Benchmark:** The percentage of jobs that pay a liveable wage will increase from 81% in 1994 to 90% by 2005 and eventually to 100%.

### Number of Liveable Wage Jobs Decreased Slightly

This performance measure gets a red flag because in 1994, 20% of all jobs in Maine did not pay what the Growth Council considers to be a liveable wage for that year; \$18,204 for a family of two. This is a slight decrease from the 1993 figure of 81%.

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 forced either 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. The family size of two was chosen because roughly half of all Maine people are employed. Generally then, each job in Maine supports roughly two people. It is important to recognize that this liveable wage is being presented in terms of what is required PER YEAR, and may be generated by a combination of jobs.



## 26 Women's Wages as a Percent of Men's Wages

**Benchmark:** The average annual earnings of Maine women, by occupation, will improve from 53.6% in 1990 to at least 65% of the average annual earnings of men, by occupation, by 2000.

### Women Continuing to Earn Less than Men, but Improving at Last Look at the Data

This performance measure gets a red flag because on average, Maine women earn much less money than Maine men. In 1990, the average annual earnings of women compared to the average annual earnings of men, on average in similar job classifications, was 53.6%. This was an improvement of 6.3% over 1980 levels. This performance measure is derived from looking at the total amount of income earned by women compared to the total amount earned by men, by occupation. Because this data is generated by the US Census, we won't be able to tell if women's annual wages are improving relative to men's until 2000.

Disparities in the amount of money that one can expect to make, due to factors related to one's gender, provide disincentives for women to contribute to the labor force and impair economic growth by not fully realizing the benefit of having meaningful and productive contributions from all people.

This performance measure considers the average annual earnings of women as a percent of the average annual earnings of men in each of the six major classes of occupations (professional and managerial specialties, technical and administrative including sales, services, natural resource industries, precision production and craft and repair, and operators and fabricators and laborers), then averages the six.

The disparity between men's and women's average annual earnings is a result of three major factors, among others: (1), the number of women in each class of occupation as compared to the number of men; (2), the number of hours worked by women compared to men; and (3), the dif-



ference in wage levels paid to women compared to men, for similar jobs and similar hours worked. To affect this performance measure, a combination of all three of these factors must be addressed.

## 27 Occupational Distribution of Women and Minorities



*Benchmark:* Employment among Maine women, Hispanics, African Americans, Native Americans, and Asians will be at least 15% more widely distributed across occupations from 1990 to 2000.

### At Last Look, Distribution of Women & Minorities Across Occupations Improving

During the time period 1980 to 1990, distribution of women across occupations increased by 10.72%. For Hispanics, there was a 12.66% improvement, African Americans: 22.19%, Native Americans: 23.27%, and Asians: 22.98%. This benchmark calls for distribution to improve for each of these minority classes by at least another 15% during the time period 1990 to 2000. This data comes from the US Census and won't be updated until 2000. For now, we can't tell if distribution among women and minorities is improving.

To maximize economic growth, it is imperative that we have the benefit of full participation of all classes of people in all occupations. This performance measure examines the extent to which the distribution of women and minorities is improving across occupations. In occupations where there are few women and minorities employed, employment of women and minorities should increase.

## 28 Employment Among People with Disabilities



*Benchmark:* Among Maine people with disabilities, the percent 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, but Data Not Current

Among people with disabilities in the labor force in 1990, 86% were actually employed whereas among people in the labor force with no disabilities, 94% were employed. Because this data is generated by the US Census every ten years, we won't be able to determine if employment among people with disabilities is improving until 2000.

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.

Although this performance measure focuses on people with disabilities who are in the labor force, there is a significant number of people with disabilities who are not in the labor force, and many who have dropped out of the labor force because of the difficulties they face in gaining meaningful and rewarding employment, even though they may be capable.

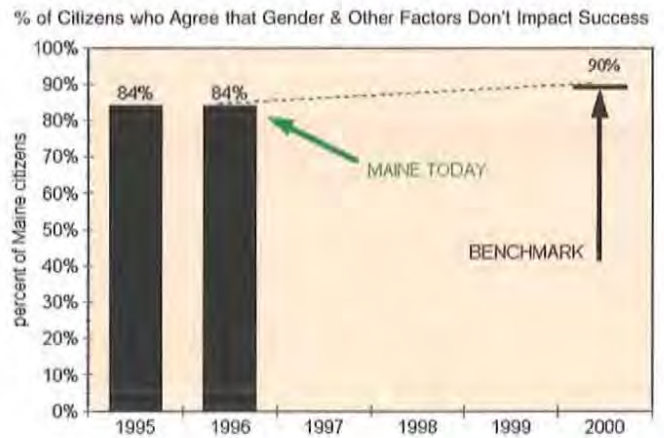


## 29 Discrimination in the Workplace ➡

**Benchmark:** The percentage of Maine people who believe that their gender, race, or ethnicity do not impact their ability to grow and succeed will increase from 84% in 1995 to 90% by 2000, and eventually to 100%.

### Perceived Discrimination Unchanged

In 1996, 84% of Maine citizens reportedly thought 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 the same percentage of people as in 1995. The data for this performance measure represents the percent of people who agreed or strongly agreed with this statement. Fundamental to long term economic growth are work environments that afford equal opportunity for employment, advancement, and an adequate standard of living.



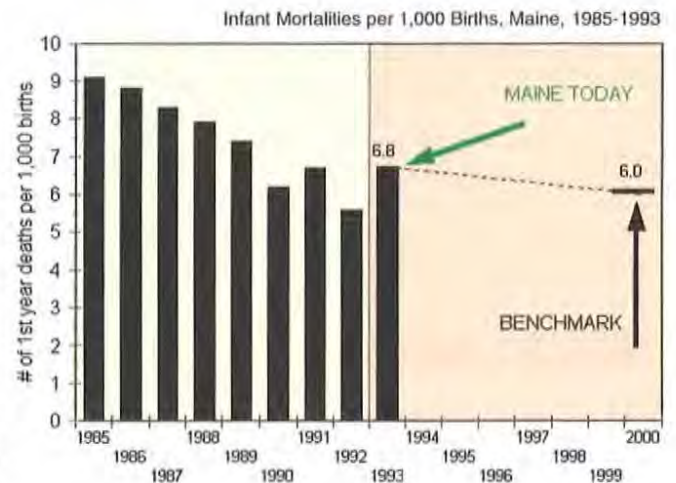
## 30 Infant Mortality ⬇️ ★

**Benchmark:** Maine's infant mortality rate will decrease from 6.8 per 1,000 births in 1993 to less than 6, on average, for the period 1993 to 2000.

### Excellent Relative to Other States

The performance measure gets a gold star because Maine typically has such good rates relative to other states. In 1993, 102 Maine babies died before their first birthday, translating to an infant mortality rate of 6.8 per 1,000 births. This was the 7th best rate in the nation, among the 50 states. In 1990 and in 1992, Maine had the best rate in the nation and over the past 10 years, has consistently ranked among the top ten states. Maine's average infant mortality rate for the past five years is 6.54.

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; and these are two of our most vulnerable populations. The social conditions impacting a human at this early stage of life are a good indicator of expected social conditions throughout the individual's life.



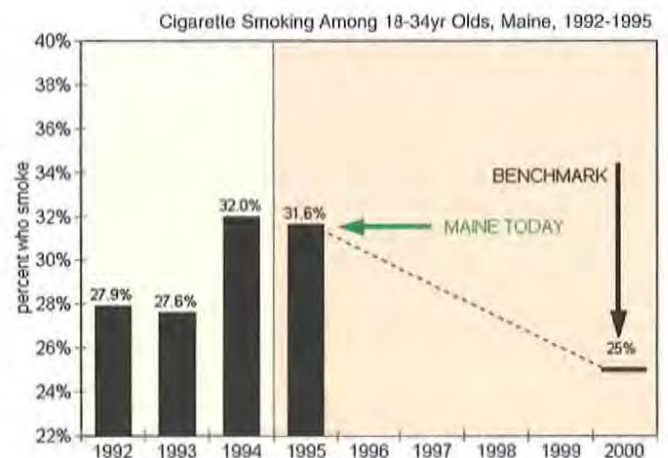
## 31 Cigarette Smoking ⬆️ 🚩

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

### Roughly A Third Smoking - Slight Decrease this Year

This performance measure gets a red flag because among 18-34 year-olds, Maine has the highest rate of smoking in the nation. In 1995, 31.6% of all Maine people aged 18-34 reportedly smoked cigarettes, a slight decrease from the 1994 figure of 32%. Among all people over age 18 Maine's smoking rate is the 11th highest in the nation.

This is a performance measure because cigarette smoking is the leading cause of preventable death in Maine. Smoking among 18-34 year-olds is particularly relevant because people of this age are most likely to be passing detrimental effects of smoking onto 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.





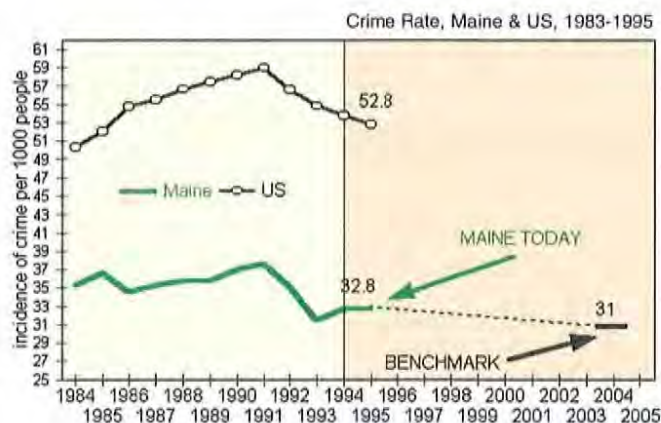


**Benchmark:** Maine's crime rate will decrease from 32.7 incidents per 1000 people per year in 1994 to below 31 incidents per 1,000 people per year by 2005.

### Excellent Nationally

This performance measure gets a gold star because Maine's crime rate is typically one of the best in the nation. U.S. crime rates in 1995 averaged 50 incidences per 1000 people, while the Maine average was only 32.8 incidences per 1000 people. With the second lowest crime rate in the nation, Maine is a relatively safe place to live.

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 and raise children.

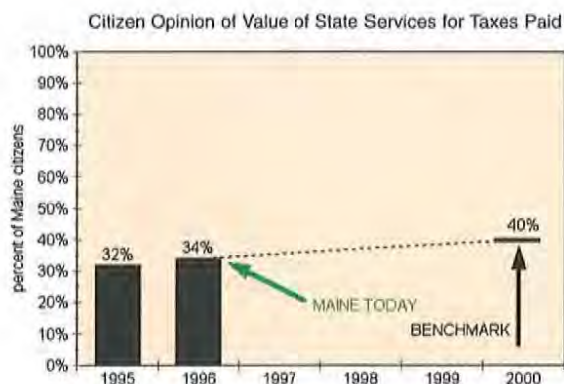


### 33 Citizen Satisfaction with State Government

**Benchmark:** The percentage of Maine people who regard the value of state services as good or excellent will improve from 32% to 40% by 2000.

#### Slight Increase in Citizens' Perceived Value of State Services

Maine citizens were asked to rate the "value of state services that you get for the taxes you pay to the state." In 1996, 34% of those surveyed rated state services as "good" or "excellent", a 2-point improvement in the perceived value of state services. Value of service for 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 to foster economic growth.



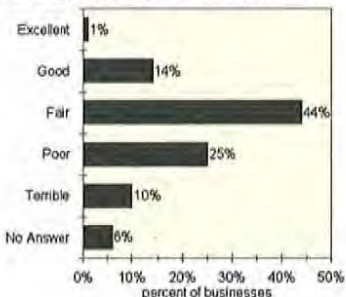
### 34 Business Satisfaction with State Government

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

#### Businesses Cool on State Government

In 1996, just 15% 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?" We did not ask this question last year, so we do not have historical data to compare, but we would expect this percentage to increase.

#### Business Satisfaction with State Government



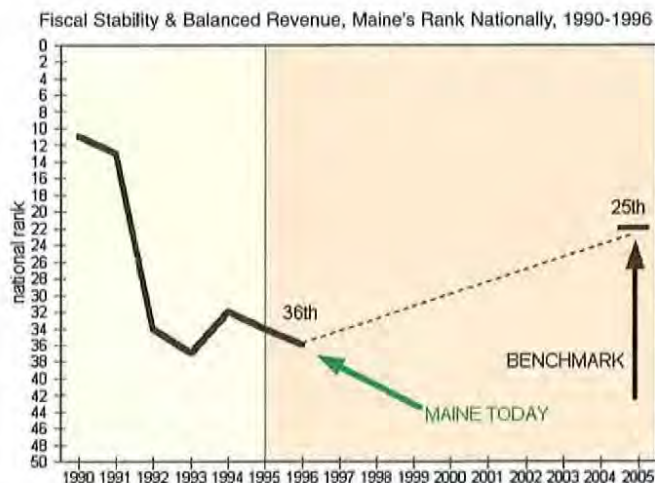
### 35 Fiscal Stability and Balanced Revenue

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

#### Losing Ground Relative to Other States

Maine dropped another two places in rank this year, among the fifty states, and is now ranked 36th in the nation. Maine tax policies which are considered as part of this index have remained relatively unchanged in recent years. Maine's continued slip in standing is due mostly to policies in other states.

This composite index examines balance among the four major taxes (corporate, income, property, 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. States are ranked nationally via this index. Maine scores well with regard to the balance of state tax collections, although points are deducted because the property tax accounts for 38% of revenues which is relatively high. The primary reason for Maine's low standing nationally has to do with lack of stability of the taxation system. In par-





ticular, Maine is penalized for allowing net operating loss carrybacks.

This index is important for businesses and others who are concerned with the predictability of future taxes and stability of the state economy.

## 36 State and Local Tax Burden

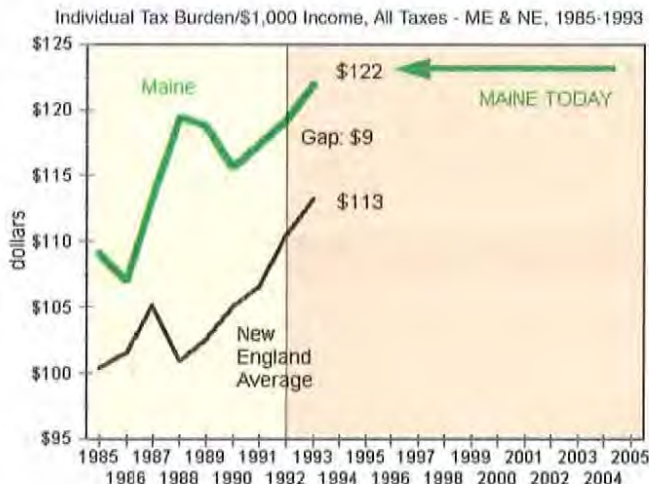
**Benchmark:** The gap between Maine and New England in state and local tax burden per \$1,000 of income generated will decrease from \$8.70 in 1992 to less than \$7.00 by 2005.

### Gap Remains Formidable

In 1993, Maine people earned a total of about \$23 billion as income and paid a total of about \$3 billion in state and local taxes. Stated another way, for every \$1,000 earned as income in Maine, about \$122 was paid in state and local taxes. The average tax burden per \$1,000 of income for New England was about \$113. In 1993, the gap between Maine and New England was about \$8.75, a bigger gap than in 1992.

People and businesses making decisions about where to locate look at the amount of taxes they will have to pay as part of that decision. Given that Maine competes with other New England states to attract people and businesses, we are concerned with our relative tax burden. We will more easily attract economic growth if we can lower our tax burden relative to other New England states.

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.



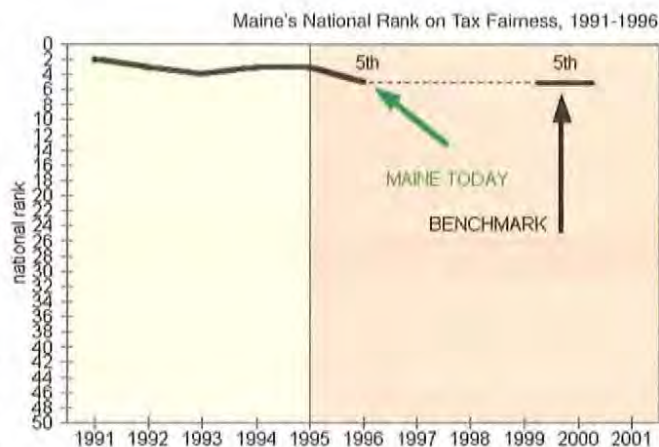
## 37 Tax Fairness

**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.

### A Recent Decline, but High Relative to Other States

This performance measure gets a gold star because Maine has the 5th most fair state tax system in the nation, according to this particular method of assessment, although in recent years Maine's standing was even better. This performance measure is a composite index based on six indices; some to do with tax burden on wealthy people relative to poor people, and some to do with the transparency of corporate tax reporting.

Maine's high ranking is due in large part to the fact that the state has in place "fair" tax policies, such as the property tax circuit breaker and combined reporting of corporate income, and also because the income tax threshold, the level of income at which a family of three begins to pay income taxes (\$12,100), is relatively high. Maine gets penalized because of the regressivity of the sales tax (poorer people pay a higher percentage of their income in sales tax than do wealthier people), among other reasons.





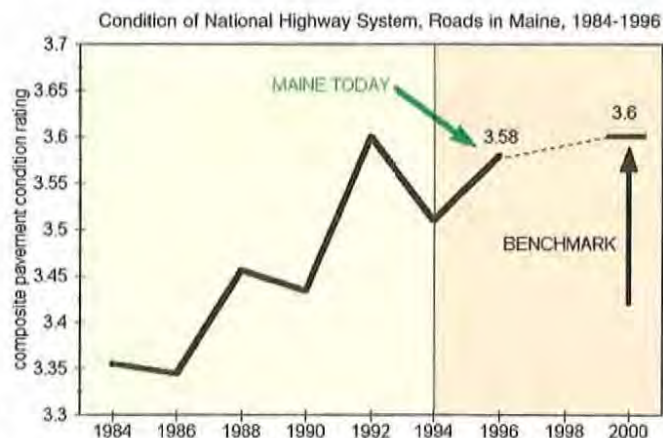
## 38 Condition of Roads

**Benchmark:** The average condition rating of National Highway System roads in Maine, weighted by use, will improve from a rating of 3.51 in 1994 to 3.6 by 2000.

### Pavement Condition Improving

In 1996, the condition of Maine roads on the National Highway System was rated 3.58 on a scale of 1 - 5 with 5 being perfect and 0 being out of service. This is a slight improvement over the 1994 rating of 3.51. In 1996, vehicles traveled 11,582,000,000 miles on Maine roads and bridges; they are fundamental to moving the state's commerce.

This data rests 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, 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 but there are also minor arterials and major collectors which are not considered as part of this performance measure.



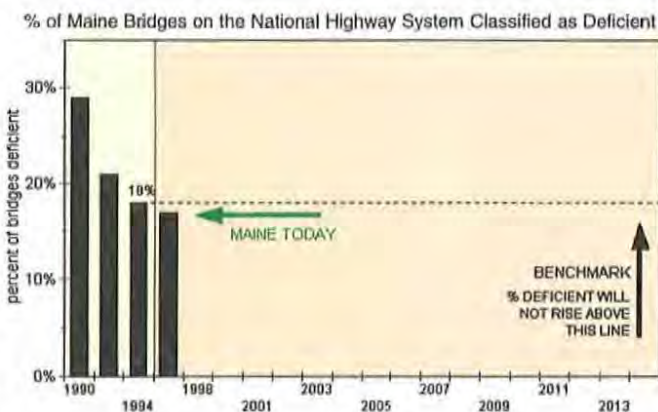
## 39 Condition of Bridges

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

### Condition of Bridges Improving

In 1996, 17% of Maine's highway bridges on the National Highway System are 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.

Bridges represent a significant infrastructure investment on behalf of the government. Maintaining that investment and facilitating the flow of commerce is fundamental to long term economic growth. This measure looks at all bridges in 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 but there are also minor arterials and major collectors which are not considered as part of this performance measure.



## 40 Modes of Freight Transport

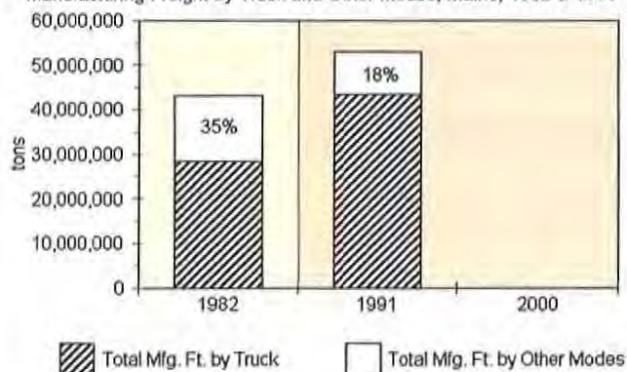
**Benchmark:** The percent of all manufacturing freight shipped in the state that goes by rail, water, or air will improve from 18% in 1991 to 24% by 2000.

### Trucking on the Increase - Moving Away from the Benchmark

From 1982 to 1991, manufacturing freight shipped over the road increased 53% whereas manufacturing freight shipped via other modes (rail, water, air) decreased 36% due in part to the demand for precise inventory control. In 1991, Maine manufacturers shipped 52,846,708 tons of goods, 82% of it by road and 18% by other modes. This performance measure looks at the amount of manufactured freight that goes by motor carrier compared to how much goes via other modes of transport. Improving the balance among transport modes will result in increased modal choice.

Maine has a number of underutilized transport modes, other than roads, in the form of railroads, airports, and seaports. Maine's collector roads are deemed to be overburdened with conventional vehicular trans-

Manufacturing Freight by Truck and Other Modes, Maine, 1982 & 1991





portation and require large capital investments to maintain and upgrade. Greater utilization of the alternative infrastructures would relieve the dependency on the traditional collector-road system and bring about greater efficiencies and economies of scale.

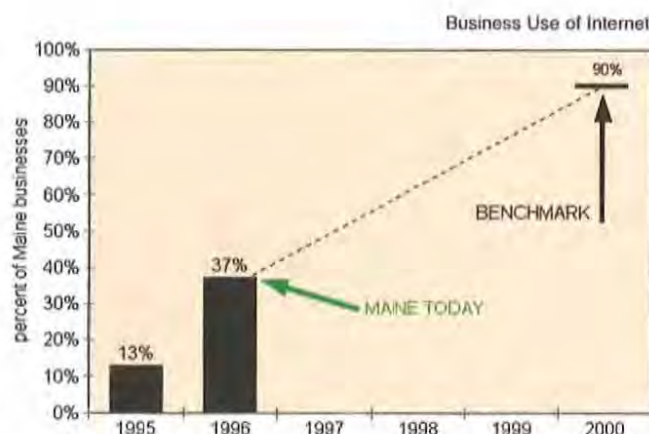
## 41 Business Use of Advanced Communications Technology

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

### Business Use of the Internet Tripled in One Year

In 1996, 37% of all Maine businesses reportedly used the Internet for business purposes, up from 13% in 1995. This represents almost a tripling in the volume of use.

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 technology 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.



## 42 Cost of Energy

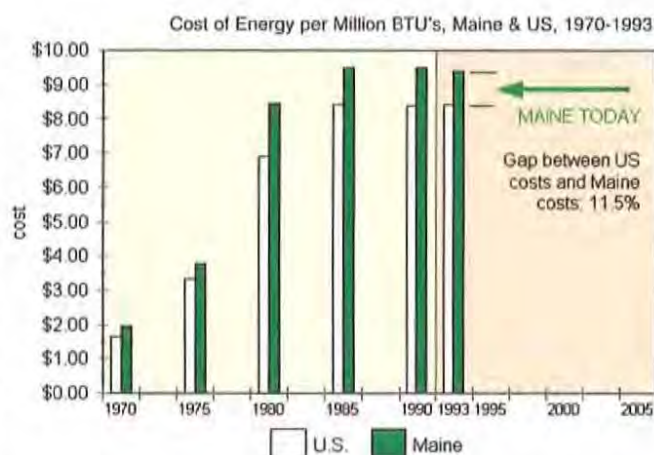
**Benchmark:** The difference between the average cost of energy in Maine and the US will improve from an 11.5% difference in 1993 to a 10% difference by 2005.

### Energy About 11.5% More Expensive in Maine

In 1993, on average, Maine people and businesses paid about 11% more for energy than did the rest of the nation. In 1990, the gap between Maine costs of energy and US costs was about 13.4%. In 1985, the difference was about 12.7%. In 1993, Maine was ranked as the 14th most expensive state in the nation.

Cost of energy is a fundamental cost of doing business. Recent studies have shown that it is among the key things that businesses look at when choosing a location to expand or move to. Energy comes from the following sources: petroleum, gasoline, natural gas, coal, nuclear, and hydroelectric. The unit of measurement common to all these sources is British Thermal Units (BTUs), a measure of energy output. This measure relies on data provided by the U.S. Department of Energy and assimilates all costs of energy in Maine, weighted according to volume of use, and makes a comparison with the U.S. average.

The U.S. Department of Energy measures the cost of energy consumed by end users, i.e., the residential, commercial, industrial, and transportation sectors. The measure excludes the cost of intermediate feedstocks used in industrial production processes.



## 43 Access to Energy Sources

**Benchmark:** The number of Maine counties with access to all major energy sources will improve from 3 counties in 1996 to 10 counties by 2000.

### Thirteen Maine Counties are Without Access to all Energy Sources

In 1996, all major sources of energy were not available in all Maine counties. Natural gas was not available in Androscoggin, Cumberland and York counties. Access to a wide variety of energy sources allows Maine companies to choose sources depending on price and other factors. This measure simply looks at the number of counties with access to all major sources.



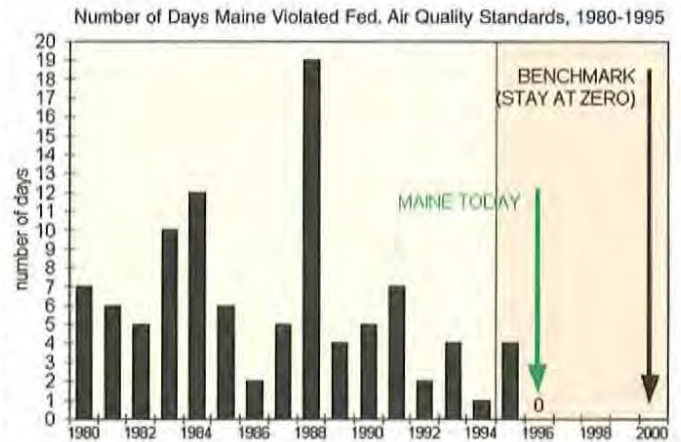
**Benchmark:** The number of days that Maine violates federal air quality standards due to ground-level ozone will improve from 4 days in 1995 to 0 days by 2000, and remain at zero.

#### Benchmark Achieved for Now - Looking to Maintain

In 1996 there were no days that Maine's levels of ground-level ozone were higher than the federal standard. This is a substantial decrease from the previous summer that had 4 days in excess of the federal standard. This measurement is just one indicator of over-all air quality.

Air quality is important to long term economic growth for three reasons. High levels of ground-level ozone are unhealthy for Maine people, causing lost work days and other costs associated with ill health. The air is extremely valuable for assimilation of pollution but the dirtier it is, the less it can perform that function, legally and ecologically. Maine benefits economically from its reputation for being pristine. Gaining a reputation for poor air quality would work against economic growth.

The federal standard is that the air should not contain more than .12 parts per million of ground-level ozone as measured by looking at maximum hourly concentrations.



#### 45 Water Quality of Lakes

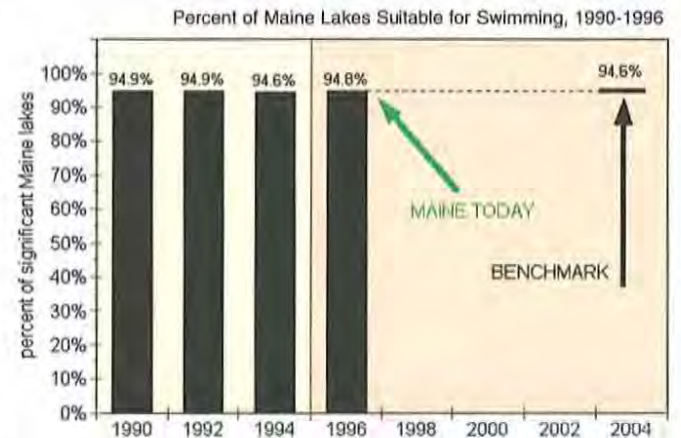
**Benchmark:** The percentage area of significant Maine lakes that are fully suitable for swimming will be at least 94.6% from 1994 through 2005.

#### Percentage Holding Steady, but Threatened

Maine has 958,886 acres of significant lakes. Of Maine's 5,785 lakes, 2,314 are deemed significant; and of these, 52 were considered only partially suitable for swimming in 1996 totaling 49,969 acres. This amounts to 94.8% of the total acres of significant lakes. Over the past six years, this percentage has remained fairly constant but increased land development suggests that maintaining this percentage will be difficult.

The primary determinant of a lake's suitability for swimming is the extent to which it has algae blooms. When a lake experiences a "bloom," it appears green and is quite unattractive and unsuitable for swimming. The most common cause of algae blooms is storm water run-off entering the lake directly, carrying non-point source pollution, particularly the nutrient phosphorus.

This is a performance measure because lake waters provide nurseries and feeding grounds for an untold number of plant and animal species, and they provide valuable recreational opportunities for Mainers and visitors.



#### 46 Water Quality of Rivers

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

#### 236 Miles Unsuitable but Eliminating Dioxin a State Goal

Due to unsafe levels of dioxin, people are advised not to eat fish caught from the Penobscot below Lincoln, from the Kennebec below Skowhegan, and from the entire Maine length of the Androscoggin. These stretches of river total 236 linear miles and amount to some of the largest and most significant expanses of river area in Maine. The number of miles unsuitable for fish consumption due to dioxin has remained constant since 1992.

Dioxin is a by-product of the bleaching process used in the making of kraft paper. The effects of dioxin include cancer, chloracne, and immunotoxic, reproductive, and developmental disorders.





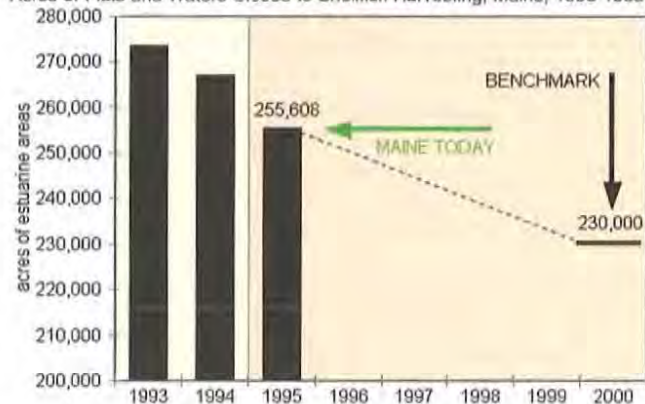
**Benchmark:** The percentage of Maine estuarine areas not suitable for shellfish harvesting will decrease by 10% from 255,608 acres closed in 1995 to less than 230,000 acres closed in 2000.

#### Steady Improvement in Amount of Open Shellfish Beds

In 1995, the amount of area closed to shellfish harvesting was 255,608 acres, representing 14% of all shellfish beds in Maine. In 1993, 15% was closed to shellfish harvesting. Each year since 1993, additional areas of shellfish beds have been opened representing an increase in marine water quality.

Area of shellfish beds open to harvesting is important not only because it has a direct effect on the shellfishing industry (\$11 million gross sales per year), but also because it is an indicator of overall marine and estuarine water quality; which in turn is important to all sorts of 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.

Acres of Flats and Waters Closed to Shellfish Harvesting, Maine, 1993-1995



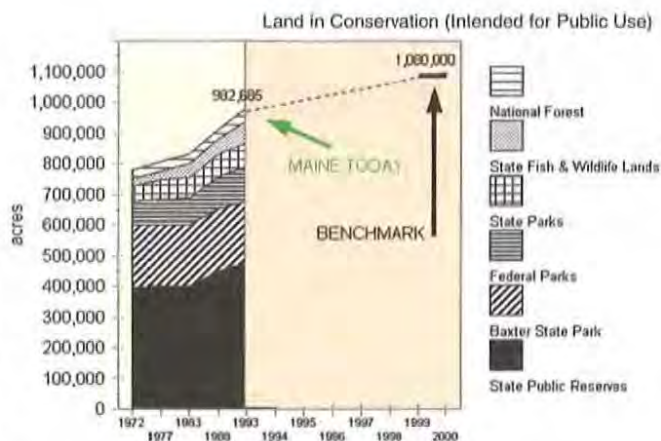
#### 48 Conservation Lands



**Benchmark:** The amount of Maine conservation land intended for public use will improve by 10%, from 982,685 acres in 1993 to 1,080,000 acres by 2000.

#### Steaming Towards an Ambitious Benchmark

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, the state has an exceptional track record of conserving land via private funding, such as Baxter State Park, hundreds of privately owned conservation tracts throughout the state, and a quality municipal park system. Although the graph shows data only through 1993, we estimate that in 1996 there were about 1,000,000 acres of land for conservation and recreation purposes. Recent increases in state holdings were largely the result of the Land for Maine's Future \$35 million acquisition program.



#### 49 Industrial Use of Toxic Chemicals



**Benchmark:** Industrial use of toxics in Maine will be reduced by 30%, from 694 million pounds in 1990 to 486 million pounds by 2000.

#### Use of Toxics Steadily Decreasing

In 1995, Maine businesses used 616,355,857 pounds of toxic materials, mostly in manufacturing. This represented an 11% decrease from the amount of toxic materials used in 1990. Toxic substances or toxics are defined by the federal government and include such things as phenol, chlorine, propylene oxide, and hydrogen chloride. Toxics are typically found in textile mills, tanners, electronic plants, and metal finishing plants, among others.

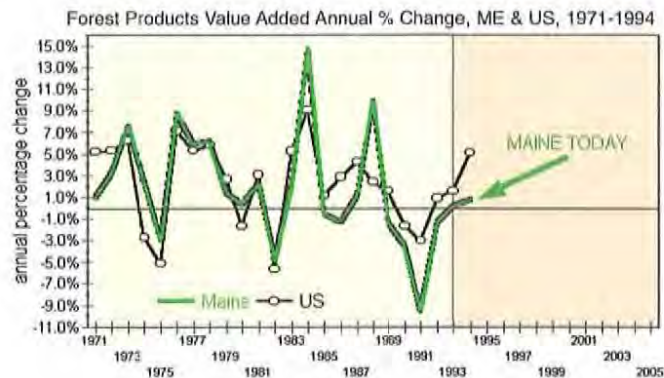


**Benchmark:** Maine's growth in value added in the forest products industries will be better than US growth rates, on average, from 1993 to 2005.

### Growth Lagging in Maine

This performance measure gets a red flag because for each of the past 6 years, Maine's growth in the forest products industry has lagged behind US growth, to a large degree in some years. Given that Maine products account for a good portion of the US market, it's not surprising to see similarities in the two growth rates, although Maine's growth has been much more volatile. In 1995, Maine mills produced about 1 million board feet of lumber, just over 2% of all lumber produced in the US. In 1993, Maine produced 3.8 million tons of paper, about 9% of all paper products made in the US. In some product lines, such as fine coated printed papers, Maine products account for much more of US production.

For the purposes of this performance measure, forest products include all establishments that manufacture paper, lumber, and other wood products. Such products accounted directly for over 5% of the Maine economy in 1994, and their manufacture contributed indirectly to a host of other industries.



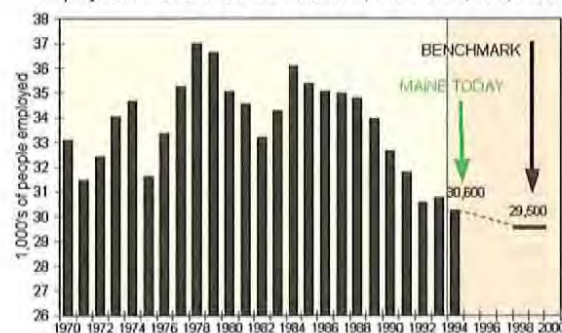
### 51 Paper and Lumber Employment

**Benchmark:** Employment in Maine's forest products industry will not drop below 30,150, a 2% decrease from the 1993 level of 30,764, between now and the year 2000.

### Employment Declining

Employment in the forest products industry continues a slow decline, and employment in this industry is expected to decline further. The primary reasons for the decline are related to increased mechanization. This data represents all workers who are employed by a business whose primary activities include making paper, lumber, and other wood products.

Employment Forest Products Industries, 1970-1994, in 1,000's



### 52 Volume of Large Sawtimber Trees

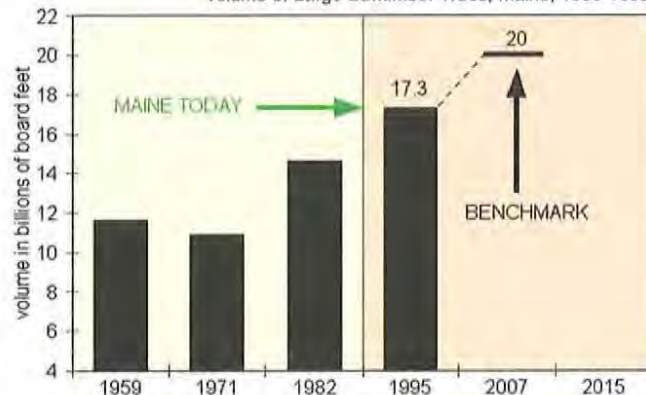
**Benchmark:** The volume of large saw timber trees in Maine will increase from 17.3 billion board feet in 1995 to at least 20 billion board feet by 2007.

### Volume of Large Trees Increasing

Although steadily increasing, the benchmark of increasing the volume to 20 billion board feet of standing large sawtimber trees is ambitious. Technically we are measuring, by board feet which is a measure of volume, all the trees in Maine that are of sawtimber quality and over 15 inches in diameter.

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 option for the landowner. They can be used for sawtimber, veneer, pulp, and other products.

Volume of Large Sawtimber Trees, Maine, 1959-1995



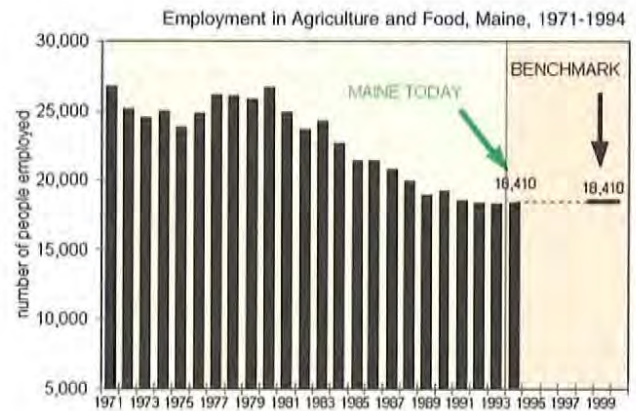


## 53 Farming and Food Employment

**Benchmark:** Employment in Maine's agriculture and food industries will hold steady at 18,410 from 1993 to 2000.

### Employment Holding Steady

In 1994, 18,410 people were employed in Maine's agriculture and food industry, although this number under-represents the actual number of people employed in these and related industries because, among other reasons, it does not include self-employed farm workers. Over the past 15 years, employment in these industries has declined although it has steadied in the past four years. Employment declines are due mostly to the decline of the chicken industry in the late 1980s and more generally because of increased mechanization.

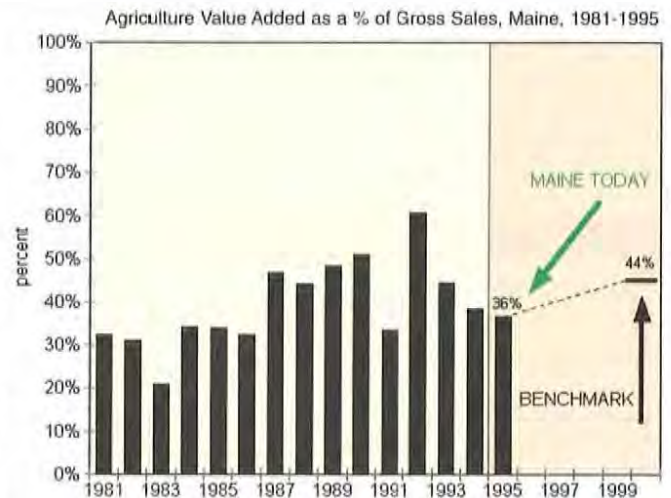


## 54 Agriculture Value Added as a Percent of Gross Sales

**Benchmark:** Agriculture value added as a percent of gross sales will improve from 36% in 1995 to an average of 44% for the period 1995 to 2000.

### Better than National Rate but Room for Improvement

In 1994, Maine farmers generated \$479.2 million in gross sales, \$174.8 million of which is characterized as value added. For the purposes of this measure, value added includes net farm income, property taxes, and wages paid to farm workers. 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 as defined here. Essentially, this measure looks at how much Maine people are benefiting from each dollar generated in gross sales. By way of comparison, Maine's average value added as a percent of gross sales over the past 20 years has been about 36% whereas nationally, the percent has been just 32%.

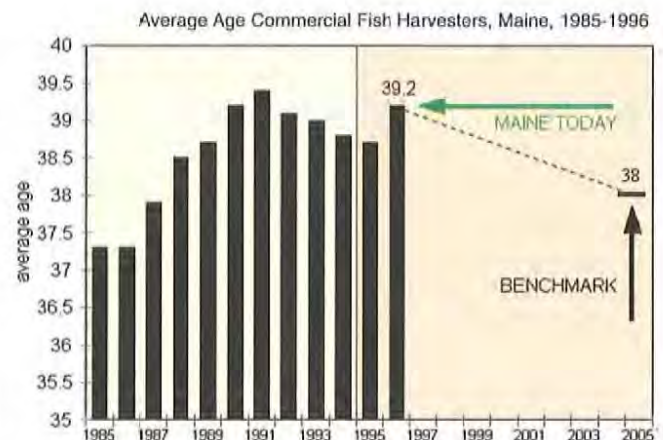


## 55 Commercial Fishing

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

### Average Age Increases After Steady Decrease

The average age had been going down, until 1996 when it seems to have jumped, due in part to a freeze on issuing new licenses for two of Maine's fisheries, lobsters and urchins. This measure is a proxy for "perceived opportunities" in the fishing industry. If there is a belief among fish harvesters 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 harvesters 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, that would be a good sign.



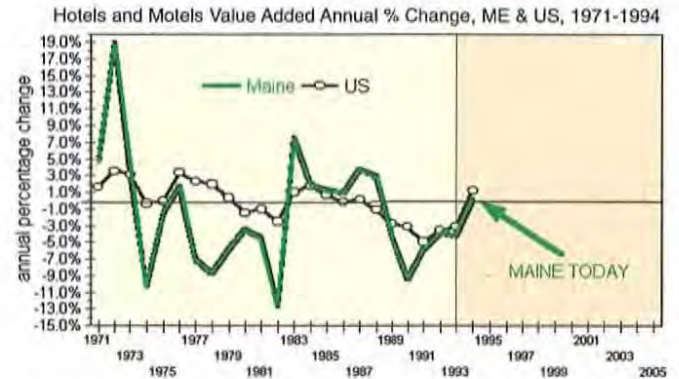


*Benchmark:* Maine's growth in value added in the hotel and lodging industry will be better than US growth rates, on average, from 1993 to 2005.

### Growth in Maine Lagging

For the past 6 years, this industry has grown slower in Maine than it has nationally. This performance measure tracks growth in the total amount of all wages and profits earned in the hotel and lodging industry in Maine, and compares that growth rate to the US growth rate. It is not intended to represent the magnitude of the industry but simply alert us to the ups and downs compared with national ups and downs. Hotels and Lodging is regarded as the bell-weather industry for tourism. While we know that tourists pay for much more than just hotels when they are here, hotels are used primarily by visitors to our state. Ups and downs in the hotel industry are thought to reflect ups and downs in all industries that benefit heavily from tourists.

As for magnitude of the industry, one might start by cautioning that it is a collection of industries that do business with tourists. It's very hard to capture data for the entire industry. A 1991 study estimated that tourists spent \$2.75 billion that year in Maine, resulting in 78,320 jobs, and over \$300 million generated in state and local taxes. A more recent study estimated that tourists spent \$1.22 billion just during the summer of 1995.



*Benchmark:* Employment in Maine's hotel and lodging industry will increase from 11,508 jobs in 1993 to 12,000 jobs by 2000.

### Employment Holding Steady

Given that there has been negative growth in this industry for several years in a row, it's not surprising to see that employment has leveled off. This measure tracks all those who are employed by hotels and other places of lodging. We recognize that in reality, many more people are working in businesses that cater to tourists; this measure serves as a proxy for employment trends in the tourism industry overall.







1. **Gross State Product:** New England Economic Project. Related, see <http://www.bea.doc.gov/>.
2. **Personal Income:** U.S. Department of Commerce, Bureau of Economic Analysis. See <http://leap.nlu.edu/bea/wwwhome.htm>.
3. **Employment:** Maine Department of Labor, Bureau of Employment Security in cooperation with the U.S. Bureau of Labor Statistics.
4. **New Business Starts:** From the U.S. Small Business Administration, Office of Advocacy, based on state employment security office quarterly unemployment insurance reports filed with the U.S. Department of Labor.
5. **Job Growth Among New Businesses:** Corporation for Enterprise Development, Washington, D.C.
6. **New Products or Services:** Annual Statewide Surveys of Maine Businesses, 1995, 1996, commissioned by the Maine Economic Growth Council.
7. **International Exports:** Maine International Trade Center, Portland, Maine.
8. **Technology Resources:** Corporation for Enterprise Development, Washington, D.C.
9. **Manufacturing Productivity:** Maine Department of Labor, Bureau of Labor Standards, Annual Census of Maine Manufacturers.
10. **On-the-Job Injuries:** Maine Department of Labor, Bureau of Labor Standards, Occupational Injuries & Illnesses in Maine, 1994.
11. **High School Diploma or Equivalency:** U.S. Department of Commerce, Census Bureau, Current Population Reports: Educational Attainment in the United States: March 1995. See <http://www.census.gov/prod/www/abs/msp20489.html>.
12. **Associate's Degrees:** U.S. Department of Commerce, Census Bureau, 1990 US Census Data. See <http://venus.census.gov/cdrom/lookup/>.
13. **Bachelor's Degrees:** U.S. Department of Commerce, Census Bureau, Current Population Reports: Educational Attainment in the United States: March 1995. See <http://www.census.gov/prod/www/abs/msp20489.html>.
14. **Graduate Degrees:** U.S. Department of Commerce, Census Bureau, 1990 US Census Data. See <http://venus.census.gov/cdrom/lookup/>.
15. **Citizen Participation in Continuing and Adult Education:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
16. **Citizen Opinion of Training and Education:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
17. **Employer-sponsored Training for Front Line Employees:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
18. **Business Opinion of Universities and Colleges:** Annual Statewide Surveys of Maine Businesses, 1995, 1996, commissioned by the Maine Economic Growth Council.
19. **Income Disparity Among Counties:** U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division. See <http://leap.nlu.edu/bea/wwwhome.htm>.
20. **Employment Disparity Among Counties:** Maine Department of Labor, Division of Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Statistics.
21. **Income Disparity Among People:** Maine State Planning Office, Study of Family and Household Income, 1994, based on data from the U.S. Census. See <http://www.census.gov/ftp/pub/hhes/www/incineq.html>.
22. **Voter Turnout:** Maine Office of Secretary of State.
23. **Citizen Participation in Community Activities:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
24. **Business Participation in School and Civic Events:** Annual Statewide Surveys of Maine Businesses, 1995, 1996, commissioned by the Maine Economic Growth Council.
25. **Jobs that Pay a Liveable Wage:** Maine Economic Growth Council, based on 1994 Maine Occupational Wages by the Maine Department of Labor, Division of Labor Market Information Services.
26. **Women's Wages as a Percent of Men's Wages:** Maine Economic Growth Council based on data from the U.S. Census.
27. **Occupational Distribution of Women and Minorities:** Maine Department of Labor based on the 1990 Equal Employment Opportunity File (EEO) and selected Affirmative Action Statistics from the 1990 U.S. Census.
28. **Employment among People with Disabilities:** U.S. Department of Commerce, Census Bureau, U.S. Census. See <http://venus.census.gov/cdrom/lookup/>.
29. **Discrimination in the Workplace:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
30. **Infant Mortality:** Kids Count Data Book: State Profiles of Child Well-Being, 1996, published by the Annie E. Casey Foundation, Baltimore, MD.
31. **Cigarette Smoking:** Maine Department of Human Services, Bureau of Health, Maine Behavioral Risk Factor Survey, 1992 - 1995.
32. **Crime:** Federal Bureau of Investigation, Uniform Crime Reports, Crime in the United States, 1984 - 1985.
33. **Citizen Satisfaction with State Government:** Annual Statewide Surveys of Maine Citizens, 1995, 1996, commissioned by the Maine Economic Growth Council.
34. **Business Satisfaction with State Government:** Annual Statewide Survey of Maine Businesses, 1996, commissioned by the Maine Economic Growth Council.
35. **Fiscal Stability and Balanced Revenue:** Corporation for Enterprise Development, Washington, D.C.
36. **State and Local Tax Burden:** Income data from U.S. Department of Commerce, Bureau of Economic Analysis. Related, see <http://leap.nlu.edu/bea/wwwhome.htm>. Tax data from U.S. Department of Commerce, Census Bureau. See <http://www.census.gov/pub/govs/estimate/>.
37. **Tax Fairness:** Corporation for Enterprise Development, Washington, D.C.
38. **Condition of Roads:** Maine Department of Transportation, Bureau of Planning, Research, & Community Services.
39. **Condition of Bridges:** Maine Department of Transportation, Bridge Management Section.
40. **Modes of Freight Transport:** Maine Department of Transportation, Office of Freight Transportation.
41. **Business Use of Advanced Communications Technology:** Annual Statewide Surveys of Maine Businesses, 1995, 1996, commissioned by the Maine Economic Growth Council.
42. **Cost of Energy:** U.S. Department of Energy, Energy Information Administration. See <http://www.eia.doe.gov/>.
43. **Access to Energy Sources:** Maine Public Utilities Commission.
44. **Air Quality:** Maine Department of Environmental Protection, Bureau of Air Quality Control, Annual Report on Air Quality, 1980 - 1995.
45. **Water Quality of Lakes:** Maine Department of Environmental Protection, Bureau of Land and Water Quality, State of Maine Water Quality Assessments (305b Reports), 1990 - 1996.
46. **Water Quality of Rivers:** Maine Department of Environmental Protection, Bureau of Land and Water Quality, State of Maine Water Quality Assessments (305b Reports), 1990 - 1996.
47. **Water Quality of Marine Areas:** Maine Department of Marine Resources, Public Health.
48. **Conservation Lands:** Maine State Planning Office, Maine Land in Federal, State, Municipal, and Non-Profit Conservation Ownership, 1989 and 1993. Also, State Comprehensive Outdoor Recreation Plan, 1993.
49. **Industrial Use of Toxic Chemicals:** Maine Department of Environmental Protection, Office of Pollution Prevention.
50. **Paper and Lumber Value Added:** Regional Economic Models, Inc. (REMI), based on data from the U.S. Department of Commerce, Bureau of Economic Analysis. Figures for 1993 and 1994 are estimates. Related, see <http://www.bea.doc.gov/>. See NOTE below.
51. **Paper and Lumber Employment:** U.S. Department of Commerce, Bureau of Economic Analysis. See <http://www.bea.doc.gov/>.
52. **Volume of Large Sawtimber Trees:** Maine Department of Conservation.
53. **Farming and Food Employment:** U.S. Department of Commerce, Bureau of Economic Analysis. See <http://www.bea.doc.gov/>.
54. **Agriculture Value Added as a Percent of Gross Sales:** U.S. Department of Agriculture, Maine Farm Indicators. See <http://www.econ.ag.gov/briefing/fbe/fi/fi.htm>.
55. **Commercial Fishing:** Maine Department of Marine Resources.
56. **Tourism Value Added:** Regional Economic Models, Inc. (REMI), based on data from the U.S. Department of Commerce, Bureau of Economic Analysis. Figures for 1993 and 1994 are estimates. Related, see <http://www.bea.doc.gov/>. See NOTE below.
57. **Tourism Employment:** U.S. Department of Commerce, Bureau of Economic Analysis. See <http://www.bea.doc.gov/>.

NOTE about Value Added: For a state, gross state product originating (GSPO) by industry is the contribution of each industry, including the government, to GSP. An industry's GSPO, often referred to as "value added," is equal to its gross output (sales or receipts and other operating income, plus inventory change) minus its intermediate inputs (consumption of goods and services purchased from other industries or imported).







## MAINE DEVELOPMENT FOUNDATION

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