

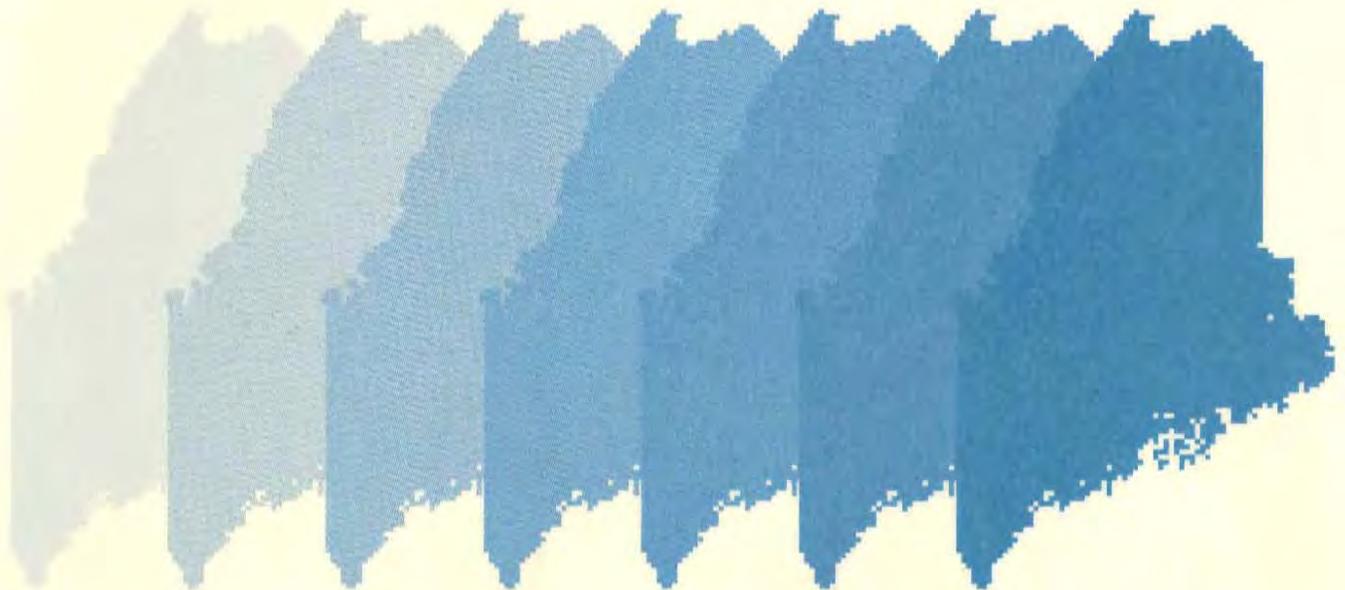
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# MEASURES OF GROWTH



SETTING PERFORMANCE MEASURES  
TO ACHIEVE MAINE'S LONG TERM ECONOMIC GOALS

PROGRESS '96  
SECOND 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**

## **Members as of October, 1995**

**Rochelle Pingree, Co-Chair**  
State Senator

**Kevin Gildart, Co-Chair**  
Bath Iron Works

**James Ash**  
Samoset Resort

**Brenda Birney**  
State Representative

**George Campbell**  
The Maine Alliance

**George Connick**  
Education Network of Maine

**Gregory Cyr**  
Cyr Lumber Company

**Lucien Deschaine**  
United Paper Workers  
International Union

**Edward Dinan**  
NYNEX

**Thomas Ellsworth**  
Biddeford/Saco Economic  
Development Council

**John Fitzsimmons**  
Maine Technical  
College System

**Kenneth Gibb**  
City of Bangor

**Philip Harriman**  
State Senator

**Timothy Humphrey**  
Maine Education Association

**Jo-An Langlois**  
Geiger Brothers

**Thomas McBrierty**  
Department of Economic &  
Community Development

**G. Steven Rowe**  
State Representative

**Dianne Tilton**  
Sunrise County  
Economic Council

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Charles Colgan  
The Muskie Institute  
Barbara Nash  
Market Decisions, Inc.

**MAINE ECONOMIC GROWTH COUNCIL**  
**SUMMARY OF GOALS AND PERFORMANCE MEASURES**

**Our vision** is a high quality of life for Maine citizens. Central to this vision is a sustainable economy that offers any 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.

**FUNDAMENTAL PERFORMANCE MEASURES**

- 1 Gross State Product (pg. 15)    2 Personal Income (pg. 16)    3 Employment (pg. 17)

**INNOVATIVE BUSINESSES**

**GOAL A: Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.**

- 4 Value of Goods Exported Internationally (pg. 20)
- 5 Sales of Goods and Services in Other States and Countries (pg. 22)
- 6 Number of New Businesses Started (pg. 23)
- 7 National Rank on Technology (pg. 25)
- 8 Number of Companies with New Products or Services (pg. 27)
- 9 Number of Companies with New Lines of Business (pg. 28)
- 10 Employee Involvement in Company Changes and Enhancement (pg. 29)

**PRODUCTIVE WORKERS & REWARDING EMPLOYMENT**

**GOAL B: 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.**

- 11 Percent of Population with High School Education (pg. 32)
- 12 Percent of Population with Two-year Degrees (pg. 34)
- 13 Percent of Population with Four-year and Graduate Degrees (pg. 36)

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

- 14 Employee Participation in Employer-sponsored Training (pg. 38)
- 15 Business Opinion of Maine's Universities and Colleges (pg. 39)
- 16 Citizen Opinion of Training and Education (pg. 40)
- 17 Citizen Participation in Continuing and Adult Education (pg. 42)
- 18 Citizen Opinion of Access to Education and Training (pg. 43)

**GOAL D: Maine workplaces will be healthy and safe.**

- 19 On-the-Job Injuries (pg. 44)

**VITAL COMMUNITIES**

**GOAL E: Among Maine families and regions, disparities in income and opportunity will be continually reduced.**

- 20 Income Disparity between Wealthiest and Poorest Counties (pg. 48)
- 21 Employment in Counties with Highest Unemployment (pg. 49)
- 22 Income Disparity between Wealthiest and Poorest Families (pg. 51)

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

- 23 Citizen Participation in Politics (pg. 52)
- 24 Citizen Participation in Civic Activities (pg. 54)
- 25 Business Participation in School and Civic Events (pg. 56)

**GOAL G: Maine citizens will have ever increasing opportunities for employment that provides a liveable wage.**

- 26 Number of Jobs that Pay a Liveable Wage (pg. 57)

**GOAL H: Maine citizens will have equal opportunity for employment, advancement, and an adequate standard of living.**

- 27 Distribution of Women and Minorities Across Occupations (pg. 59)
- 28 Employment among People with Disabilities (pg. 61)
- 29 Women's Annual Earnings as a Percent of Men's Annual Earnings (pg. 62)
- 30 Impact of Worker Gender, Race and Ethnicity on Worker Growth and Success (pg. 64)

**EFFICIENT GOVERNMENT**

**GOAL I: 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.**

- 31 Business Experience with Obtaining State Permits (pg. 66)
- 32 Citizen Satisfaction with Government Costs and Services (pg. 67)
- 33 Number of Inter-Government Agreements (pg. 69)
- 34 Use of Performance-Based Budgeting (pg. 70)

**GOAL J: 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.**

- 35 Fiscal Stability and Balanced Revenue (pg. 71)
- 36 Revenue Elasticity (pg. 72)
- 37 State and Local Tax Burden (pg. 73)

**STATE OF THE ART INFRASTRUCTURE**

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

- 38 Condition of Roads (pg. 76)
- 39 Use of Roads Relative to Other Transport Modes (pg. 78)
- 40 Business Use of Advanced Information Technology (pg. 79)

**GOAL L: Maine energy supplies will be stable and predictable, while energy prices remain competitive with national and regional levels.**

- 41 Cost of Energy (pg. 81)
- 42 Percent of Oil in Maine's Mix of Energy Use (pg. 83)
- 43 Business Efforts to Improve Energy Efficiency (pg. 85)

**HEALTHY NATURAL RESOURCES**

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

- 44 Major Water Bodies Suitable for Fishing & Swimming (pg. 88)
- 45 Amount of Conservation Lands Intended for Public Use (pg. 89)
- 46 Diverse Value of Forestry Resources (pg. 92)
- 47 Natural Resources Indexed via GIS (pg. 93)
- 48 Recycling Activities of Maine Businesses (pg. 94)

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

- 49 Average Age of Fish Harvesters (pg. 95)
- 50 Maine Agriculture Production Compared to New England (pg. 97)
- 51 Value added in Natural Resource Industries (pg. 99)
- 52 Employment in Natural Resource Industries (pg. 102)

**All goals are of equal priority, regardless of order in which they are presented; likewise with the performance measures.**

Prepared by the Maine Development Foundation for the Maine Economic Growth Council, February, 1996.



# Chapter 1



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## Introduction and Vision

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# User Guide

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## Organization of the report

On page II of this report is a **summary chart** of all the performance measures and the goals to which they relate. **Chapter 1** provides an introduction and explanation of the process and criteria used to prepare the performance measures; also presented is the Growth Council's vision for the Maine economy. **Chapter 2** contains the substance of the Growth Council's work - these are the performance measures. **Chapter 3** is an overview of what Maine citizens and businesses recently said about various aspects of the Maine economy.

Chapter 2 is not designed to be read straight through, one page after the other, as are Chapters 1 and 3. Rather, Chapter 2 may be thought of more like a reference manual. It contains actual data chosen to measure progress towards the goals.

Each performance measure is presented in a consistent format. For each one there is a statement of the measure, the benchmark, the goal towards which it measures progress, an explanation of the nature of the data presented, and a statement of where Maine stands today with regard to the measure. Although each performance measure rests on a specifically identified set of data, related data and information is often presented to enhance the reader's understanding of the measure.

## Who this report is for

This report is written for anyone interested in the long term economic health of our state. In particular, community, business, and state government leaders may find the report useful in guiding their decisions on economic policy and new programs. When the Legislature established the Growth Council in 1993, it did so with the belief that Maine has hundreds of individuals working hard in economic development with hundreds of good ideas for programs. What we lack is direction and accountability. This report and the ongoing work of the Growth Council provide that direction and give everyone a chance to measure our success. Only by measuring our progress can we identify problem areas and take corrective action.

*State legislators* may use the report to guide their policy decisions on new and existing programs; *economic development leaders* may use this report to focus special attention on local priorities; *educators* may use the report to influence curriculum to better prepare students for the complex and dynamic world of work; *business leaders* and other *nonprofit leaders* may use this report to guide policy initiatives; *government officials* may use this report to guide budgeting priorities. All Maine people may look to the performance measures and benchmarks as a way to evaluate how we are doing, as a whole, at improving the economy and moving towards our long term vision.

## A note on data availability

The data presented in this report has been gathered from a wide variety of sources. The timeliness of the data varies considerably, but we have tried to present the most recent data available. Also, we have provided the source of each data set where one might go for updates. It is the Growth Council's intent that the data which drives these performance measures will be available electronically at a single web site on the internet and will be updated regularly as new data becomes available. Look to the State of Maine homepage ([www.state.me.us](http://www.state.me.us)) for a link to such electronic data availability in the future.

## Comments? Questions?

At the end of this report is a tear-off sheet inviting your comments. Alternatively, please contact any member of the Growth Council (listed on page I) or contact Craig Freshley or Lucien Gosselin at the Maine Development Foundation (contact information on back cover).

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# Foreword

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**Measures of Growth** is the second report of the Maine Economic Growth Council. The Growth Council's first report published in May, 1995, *Goals for Growth*, identified a vision for Maine's economic future and described goals to achieve that vision. This report presents performance measures to determine the extent to which we are achieving our goals. Fourteen goals and 52 performance measures and benchmarks are presented in six broad areas: **Fundamental Performance Measures, Innovative Businesses, Productive Workers & Rewarding Employment, Vital Communities, Efficient Government, State-of-the-Art Infrastructure, and Healthy Natural Resources.**

**Purpose of  
this report**

This report differs substantially from other policy statements about the economy. For the first time in Maine, the Growth Council has set forth quantifiable measures to assess economic performance. More than platitudes or rhetoric about lofty objectives, *Measures of Growth* sets specific, measurable targets, with performance measures ranging from new business start-ups, to college degree attainment rates, to business use of advanced information technology.

The Growth Council's mission is to prepare and maintain an economic plan for the state. This report is the first phase of the plan and includes a vision for Maine's economic future, goals to achieve the vision, and performance measures and benchmarks to measure the extent to which we are achieving the goals. Alternative strategies to accomplish the benchmarks are under discussion.

**The Maine  
Economic  
Growth  
Council**

The Growth Council is comprised of 19 members who are appointed jointly by the governor, president of the senate, and speaker of the house. Members serve three year staggered terms and represent diverse stakeholder interests in our economy: business people, educators, labor leaders, state legislators, and community and environmental interests. The Growth Council is charged with performing its work in collaboration with community, education, business and government leaders around the state.

Established by state statute, the Growth Council is permanent and non partisan. The work presented in this report has transcended two administrations, two legislative sessions, and reflects participation from all corners of the political and ideological spectrum.

The Maine Development Foundation is charged by statute with the responsibility of staffing and administering the Growth Council. The foundation is one of the state's leading economic development organizations, established by the legislature with a broad mandate to strengthen Maine's economy. The work of the Growth Council is financed with an annual state appropriation, through a contract with the Department of Economic & Community Development, which is complemented in large measure by private contributions from the foundation.

**The Maine  
Development  
Foundation**

The following characteristics of this report and the work of the Growth Council, are important to reinforce:

**Character  
of this report**

- A. The economy is defined broadly.** The scope of this report is not confined to traditional measures of economic growth. It is far more comprehensive, recognizing the importance of well educated people, healthy natural resources, and reduced disparities among people. These considerations, among others, are critical to long term economic growth.
- B. This report is not a strategy,** an action plan, or a list of new economic development programs. Rather, this report states a vision for Maine's economic future, goals to achieve

that vision, and performance measures to determine what we are accomplishing. It is not the intent of the Growth Council to prescribe actions to agencies or evaluate programs, but rather to provide overall direction and measurement of progress.

- C. This report is not strictly a business agenda,** or 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.
- D. The goals and performance measures are not directed solely at state government.** Although state government plays a major role in the economy, businesses, municipalities, and nonprofit organizations have a major responsibility for moving the state toward these goals. The goals and performance measures are for all those who have a hand in strengthening the Maine economy.
- E. Individual performance measures do not stand alone.** It is erroneous to judge progress towards a goal based on any single performance measure in isolation, or progress toward the vision based on any one goal. Very few measures specifically and exclusively address a single goal (in most cases due to lack of data). 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.

## **A work in progress**

This work and all of the work of the Growth Council is a work in progress, for three reasons: first, because the Growth Council will be constantly seeking reactions and feedback from stakeholder groups around the state. As we learn more about the economy and economic growth, the Growth Council will reflect these learnings, refine the goals, and develop new and refined performance measures. Second, the economy itself is very dynamic with rapid changes in technology, globalization of markets, and increasing competition. The Growth Council's work must reflect these changes. Finally, much of the data that we rely upon is not outcome-based, nor is it available in a format that enables us to compare Maine to other states or the country. This has required the conduct of a major survey to collect information for eighteen of the performance measures. In the future, as more data is made available and our collection and analysis techniques become more sophisticated, we will alter and add to these performance measures.

## **Acknowledgments**

The principal author and production supervisor for this report was Craig Freshley, program officer, Maine Development Foundation, with assistance from Lucien Gosselin, program director, Maine Development Foundation and Dr. Charles Colgan, associate professor, Muskie Institute for Public Affairs at the University of Southern Maine. The following foundation staff were part of the research and production team: Claire Breton, Ben Dudley, Lynne Hayes, Laura Hudson, Meredith Jones, Lisa LaMothe, and Beth Sheehan (now with Coastal Enterprises, Inc.). Overall editorial guidance was provided by Henry Bourgeois, the foundation's president. The report was designed and produced in-house at the foundation. Printing and distribution was paid for by the Maine Development Foundation.

The Growth Council extends sincere appreciation to all those people and organizations who generously provided data and guidance.

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# The Vision

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In June 1994, with the involvement of over 400 community, state, and business leaders, the Growth Council adopted the following vision for Maine's economic future:

**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.**

---

**Vision  
statement**



The focus of the vision is *quality of life for Maine people*. This quality of life includes traditional economic factors such as income, jobs, and taxes; but it also includes factors such as access to recreational opportunities, clean water, opportunities for education and training, decent roads, and participation in community decision-making. All of these ingredients make up the Maine economy and influence our quality of life.

The vision is for *high quality of life* for ALL Maine people. That means reducing income and economic disparities among Maine people, most notably, differences in what Maine people can expect to earn depending on their gender or where they live. It means reducing the widening gap between Maine's richest and poorest families. Disparities such as these work against the economic growth of the state as a whole and against quality of life for all.

Fundamental to a high quality of life is a *sustainable economy*. In our development activities of today we must consider long term impacts on our economy, our environment, and our society. It is only by being mindful of long range impacts and acting accordingly that we can insure that our economy remains sustainable into the future.

**Sustainable  
development**

Working to promote quality of life for Maine citizens is not the work of the Growth Council alone, nor is it an exclusive vision. When the Growth Council surveyed Maine citizens to gather data for some of the performance measures, we found that quality of life and the things that define it are what the people in Maine want for our future. The vision is shared by Maine people as a whole.

**The vision  
shared**

From the beginning, the Growth Council was committed to setting priorities among the many goals and performance measures one could select. The experience of other states was very helpful in making this decision. Some states, for instance, have hundreds of equally important performance measures; the Growth Council felt that it was impossible to meaningfully guide economic policy and program decision-making with such a large number of measures.

**Setting  
priorities**

Last year, the six goal committees recommended over 100 goals and several hundred performance measures for consideration. When the Growth Council published *Goals for Growth* in May 1995, it shortened that list considerably. Over the last six months, the Growth Council refined the goals and performance measures further. Using the vision statement as its primary focus, the Growth Council selected 14 priority goals and 52 performance measures in seven major clusters.

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# How We Measure Progress

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## Vision and goals not enough

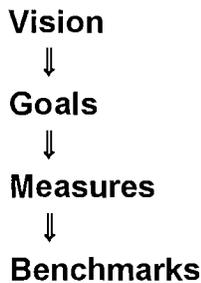
Important decisions are made every day in Maine that affect Maine's economic future. Decisions about how to spend tax revenues, how much to tax and by what methods, and how to regulate individual and corporate behavior; decisions about our children's public education; and private sector decisions about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

Long term targets are important, but if all we can do is ask if the goal has been achieved, that's like the back seat passenger asking "are we there yet?" The response needs to be more than a yes or a no - we need to be able to measure and articulate progress along the way. We need to know that we're on the right road. We need to know the extent to which we are moving toward our goals.

## Benefits of measuring performance

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 several:

- A. **Statement of collective values.** We all know where we're headed, and what we're shooting for.
- B. **A knowledge base for making good decisions.** A solid, cross-cutting set of data provides a sound foundation upon which to base good decisions and guide public and private choices.
- C. **Ongoing monitoring and assessment.** We can chart our progress against these measures and make course adjustments accordingly.
- D. **Focus for dialogue among diverse organizations.** Every measure affects several types of organizations and disciplines, providing a focal point for expressing of diverse opinions, concerns, and solutions.



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 in specific contexts, **goals** have been developed for key areas of the economy. If the goals are accomplished, the vision will be achieved.

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 goal. 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 want Maine to be at a given point in time.

It is important to note that the objective is not simply to achieve the benchmarks. We must work towards accomplishing the GOALS. The performance measures and benchmarks are simply ways of measuring progress towards accomplishing the goals; they are not themselves the goals. They are indicators of progress towards the goals.

## Looking ahead

Many of the performance measures are indicators of how healthy the economy is **LIKELY** to be in the future; not just indicators of how good things are right now. For example, *number of people attaining 4-year and graduate degrees* is an indicator of how things are likely to be in the future. We would rather sacrifice some income generated today, that would result from those people working and generating income, in lieu of better educated citizens able to contribute to the

economy in the future. Similarly, some of the natural resource measures look not at how much money the resources are generating for us today, but their likelihood of contributing to the economy into the future.

The Growth Council faced an awesome task of choosing just 52 performance measures to assess progress towards the vision and goals. To do this, the following criteria were applied (not in order of priority):

## How we selected performance measures

- A. Data availability.** This proved to be the most limiting factor in selecting performance measures. Given the concern with *outcome based measures* (see below), and the fact that historically we have done a poor job of measuring and recording outcomes, the Growth Council was faced in many instances with choosing proxy (not perfect but a reasonable substitute) measures or initiating the collection of new data sets. The Growth Council commissioned two surveys, one of Maine citizens and one of Maine businesses, specifically to gather data on issues for which no good data currently exists (see Chapter III). Other concerns related to data availability include the extent to which the data has been gathered in the same manner over time, extent to which it is likely to be collected and available in the same manner in the future, and how often the data is available (for instance we tried to stay clear of census data, available only in ten year increments).
- B. Outcome-based.** For the most part, performance measures relate to outcomes, not inputs. For example, *major water bodies suitable for fishing and swimming* is the outcome-based measure for clean water, compared to, say, *number of dollars spent to clean up major water bodies*, which would be an input measure.
- C. Accuracy/validity.** Each of the performance measures selected *actually* measures progress towards the goal and does so *accurately*.
- D. Comparability.** With regard to each performance measure, we must be able to compare Maine today WITH something else; other states, the nation as a whole, or Maine's past performance. Consequently, for each performance measure chosen there must be data available, in identical format, for other states, or the nation. Or, the data must have been kept for Maine over time so that we can compare today with our past. In the case of the performance measures based on the survey data, the benchmarks are necessarily vague because we lack the ability to compare this data to another state, the nation, or our past.
- E. Simplicity.** Perhaps most important, measures have been chosen which are relatively simple to understand. We tried to stay away from complex statistical tools in lieu of simplicity.

In selecting benchmarks, the Growth Council strived for benchmarks that were ambitious - yet achievable. The Growth Council believes that it is within our means to actually achieve each one of the stated benchmarks in the prescribed time frames. It won't be easy. Sacrifices will be required, and in many cases priorities re-ordered; but they are all possible. On the other hand, it is unlikely that any of the benchmarks will be achieved if we do nothing. Again, achieving them will require sacrifice and re-ordering priorities. They are ambitious.

## What makes a good benchmark?

Unlike many other efforts at establishing measures and benchmarks, the Growth Council has not prescribed a strict format to which all our measures and benchmarks must adhere, as some other states have done. Alternatively, the Growth Council has chosen a relative comparison for each measure and benchmark based on fit and appropriateness in each case.

With the 18 measures that rely on survey data, we simply state the general direction in which we want to move. This is because there is not yet a reference available upon which to base a specific benchmark. The data is brand new - it is the baseline. When the surveys are repeated, we will be able to state benchmarks for these performance measures more precisely.

## Survey-driven benchmarks are vague

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# Other Initiatives

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**The work is shared by many**

There are several other important efforts to establish goals for economic growth and measure progress toward goals. Many of these initiatives are referenced in chapter two in the context of the relevant performance measures. The Growth Council has worked closely with some of these groups to learn from their work and help guide their progress. Some of the major statewide initiatives include:

**Charting Maine's Economic Future** (the Maine Chamber and Business Alliance)

**Commission on Performance Budgeting** (State Planning Office)

**The Governor's Advisory Council on International Trade** (State Department of Economic and Community Development)

**Healthy Maine 2000 - A Health Agenda for the Decade** (State Department of Human Services)

**Learning Results Taskforce** (State Department of Education)

**Maine Council on Sustainable Forest Management** (State Department of Conservation)

**Maine Environmental Priorities Project** (State Department of Environmental Protection)

**Maine Human Resources Development Council** (State Department of Labor)

**The Maine Project - A Partnership for Telecommunications and Information Technology Planning** (State Department of Administrative and Financial Services)

**Maine Science and Technology Action Plan and Report Card** (the Maine Science and Technology Foundation)

**State's Economic Development Strategy** (State Department of Economic and Community Development)

**Sustainable Maine - A Primer on Integrating Economy, Environment, and Community** (Sustainable Maine)

Not all of these initiatives share the Growth Council's central focus on economic growth, but each of them contributes to part of the Growth Council's overall agenda. Referencing these efforts does not imply that the Growth Council agrees with all of the conclusions of each of these efforts, just that there are significant overlaps and opportunities for collaboration.

Some of these initiatives speak directly to economic development (e.g. Charting Maine's Economic Future); some methods involve a broad cross-section of citizens (e.g. the Maine Project); and some methods only deal with one or two of the Growth Council's goal areas (e.g. the Maine Environmental Priorities Project). Yet, all of these initiatives, and many more regional and local initiatives, share a common vision of a high quality of life, prospering businesses, and rewarding employment.

The Growth Council's responsibility is to work in collaboration with these and other organizations to achieve our vision for Maine. The Growth Council has been monitoring and supporting these initiatives and providing them with data on our performance measures. Likewise, many of them have provided data and guidance to the Growth Council. Their work will be incorporated in subsequent Growth Council reports as appropriate.

Of particular significance is *Charting Maine's Economic Future*, a vision for Maine's economy that speaks of entrepreneurial spirit, good jobs, and building on our history of Yankee ingenuity. The "Charting" report identifies measurable goals for eleven industry sectors, and there is considerable overlap with the goals identified by the Growth Council. Many of the goals identified in "Charting" are addressed by the performance measures contained in this report.

**Charting  
Maine's  
Economic  
Future**

Also of significance is the recently formed *Commission on Performance Budgeting*, which is staffed and organized by the State Planning Office. Central to establishing performance budgets for state agencies is consensus on outcome-based performance measures and benchmarks. These performance measures will subsequently guide program and budget decisions. It is anticipated that the Growth Council's performance measures will be used by many state agencies and policy makers in facilitating their performance budgeting work.

**Performance  
budgeting  
and state  
government**

At the strategic level, the *State's Economic Development Strategy*, prepared by the State Department of Economic and Community Development, is guided by the Growth Council's vision statement. The strategy expresses how the state government will direct its resources to support targeted industry sectors, the financial and capital needs of business, new market penetration, human resource development, and infrastructure needs.

**State's  
Economic  
Development  
Strategy**

Maine has over 70 statewide and regional economic development agencies and dozens of local development organizations. These include state agencies, associations, regional development agencies, and nonprofit service providers. These organizations provide important economic development services to businesses and communities. These organizations are implementing strategies, many of which are in direct support of the Growth Council's vision and goals. The long-term value of the Growth Council's work is to help guide these actions and encourage everyone to work toward achieving the same goals.

**Economic  
development  
agencies**

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# The Process - Where We Are

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Since its creation in 1993, the Growth Council has involved an extraordinary number of people in its work to establish a vision and goals for the Maine economy. The report *Goals for Growth* was published in 1995 and served as a focus for discussion and confirmation of the goals.

Most recently, the Growth Council has worked closely with staff, consultants, and experts to collect and analyze scores of data, including the design and implementation of two complex survey instruments. Growth Council members have also conducted several forums around the state to explain the Council's work.

As with the Growth Council's first report, *Measures of Growth* is a work in progress. It is written and formatted in a manner to invite review and comment. This is a dynamic process, and the Growth Council encourages feedback on the goals, performance measures, and benchmarks.

In 1996 the Growth Council will work with the governor, legislature, and the state's key organizations to identify alternative strategies to achieve the benchmarks. The Council welcomes in particular the involvement of organizations already engaged in efforts to establish benchmarks and develop strategies to achieve them.

**TODAY →**

## The Steps

Growth Council convenes (1/94)

Define Vision (6/94)

Identify Key Areas

Establish Goals (4/95)

Report: *Goals for Growth* (5/95)

Gather and Analyze Data

Define Performance Measures

Report: *Measures of Growth* (2/96)

Discuss with Governor and Legislature

On-going Coordination With Related Initiatives

Public Education & Feedback with Key Organizations, Stakeholders, and Community Leaders

Work with Governor and Legislature on Performance Budgeting

Work with Key Organizations (Public & Private) to "Adopt Benchmarks"

Progress Report (1/97)

Subsequent Periodic Progress Reports to Measure Success

## Chapter 2

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# Performance Measures and Benchmarks

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# Fundamental Performance Measures

## The Fundamental Measures of the Economy

The Maine economy is large, diverse, and complex. The first step to examine the economy involves looking at the broad measures of economic performance, and to compare Maine's historical performance with that of other states and the nation. Three performance measures are presented in this section: gross state product (the total value of final output of goods and services in the Maine economy), employment (full and part time for which wages are paid), and personal income (the average amount of money earned by Maine people). Together, trends in these three measures provide an overview of how well the economy is doing at making things, creating jobs, and income. Compared with regional figures, these measures account for and influence business cycles and growth rates that are the dominant factors in Maine's economic performance in the short term.

Taken together, the performance measures show a Maine economy slowly but steadily recovering from a deep recession in the early 1990s. Economic growth has not been nearly as rapid as during the 1980s, but Maine has shown growth comparable to, or slightly better than the rest of New England through 1994.

## A Note on Population Growth

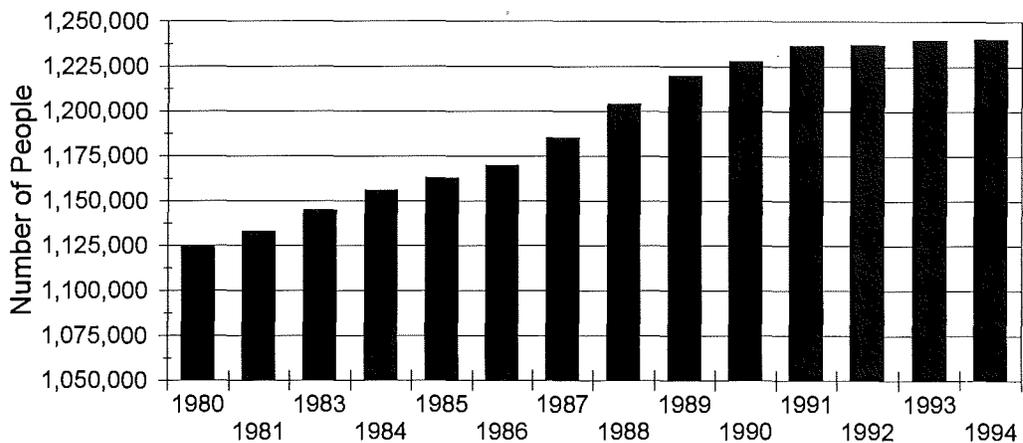
Although not a measure of economic performance, Maine's population size has a direct bearing on every performance measure and benchmark. Also, it is important to know where the population is growing and/or declining and the rates of change (see map, next page).

In 1994, Maine's population was estimated to be 1,249,280. Over the past 100 years, Maine's population has grown an average of 0.77% per year. Over the past 10 years, the growth rate has averaged 0.84% per year. The Maine population continues to increase steadily.

It is interesting to compare Maine's population growth rates with those of the nation and the world. From 1900 to 1990, the U.S. population grew from 76.2 million to 249 million people, an average increase of 2.26% per year. More recently, over the past 10 years, this rate has tapered to 0.98% per year.

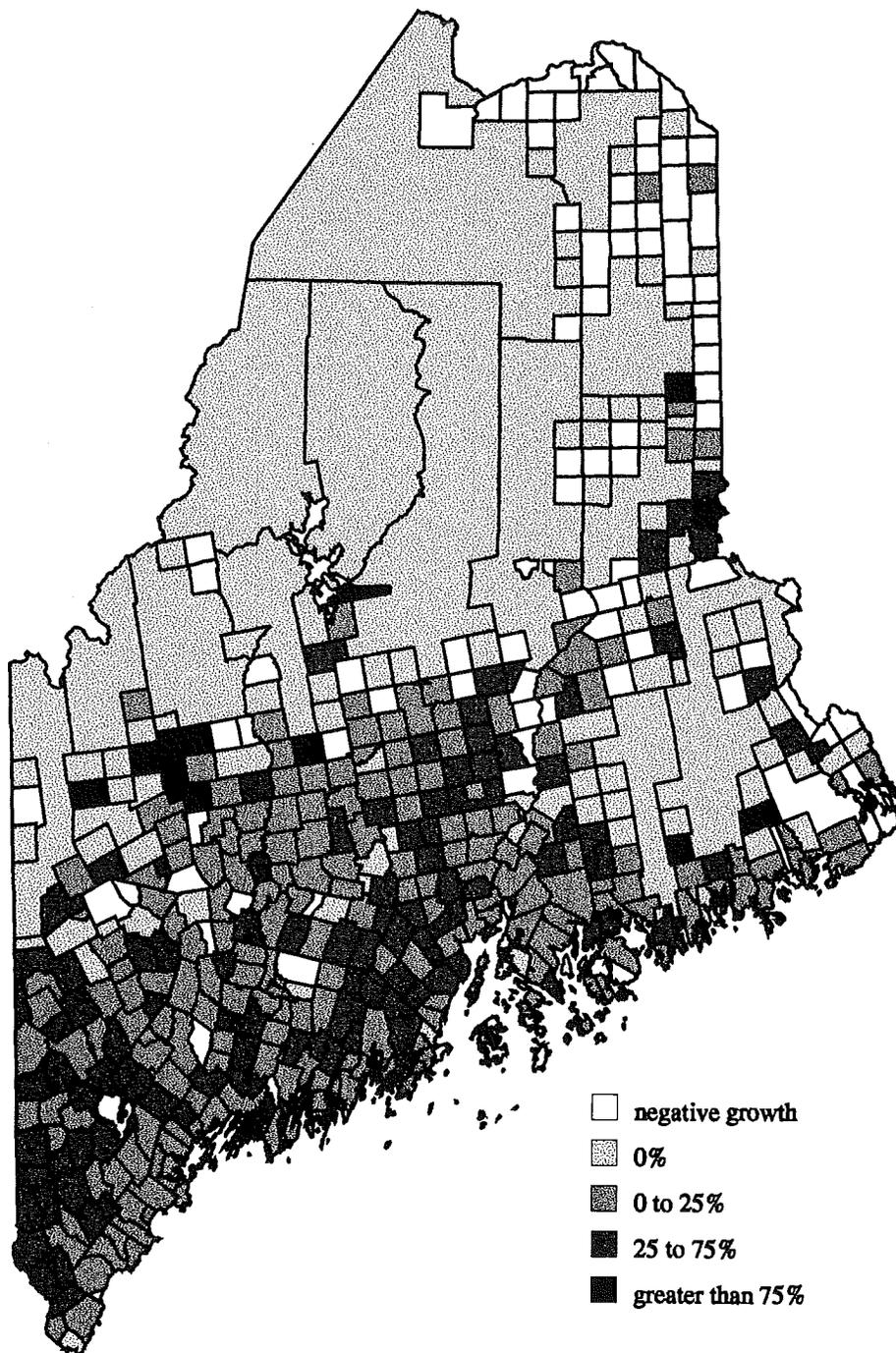
The world population, from 1900 to 1995, grew by an average of 2.58% per year. Over the past 10 years, the world population has grown at an average of 1.64% per year. Currently, the world population is growing by about 87 million people each year (70 times the population of Maine).

1980 - 1994  
Population of Maine



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Increase in Population Density  
Maine, by Town, 1980 - 1990



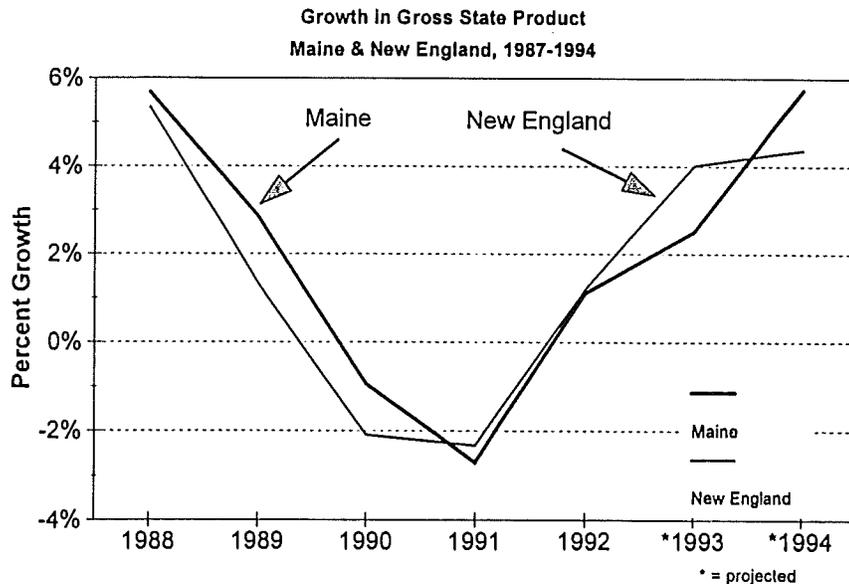
# Gross State Product

**Benchmark:** Maine's rate of increase in Gross State Product will exceed New England's rate of increase each year from now until 2000.

## About This Performance Measure

Gross State Product is a measure of the total value of final output of the state economy. It is an aggregate measure of all value added in the state. In other words, it is the sum of the final prices paid for all goods and services in Maine minus the costs of the raw materials that went into producing those goods and services. It includes such things as total wages paid, all capital investment, and all profit. It is the broadest measure of the state's economic performance.

Gross State Product is limited to transactions that involve the exchange of money. It does not include output generated from things such as unpaid work in households.



## Annual Rate of Increase in Gross State Product in Constant Dollars

	1988	1989	1990	1991	1992	*1993	*1994
Connecticut	5.17%	1.60%	-1.03%	-1.86%	0.27%		
<b>Maine</b>	<b>5.68%</b>	<b>2.84%</b>	<b>-0.94%</b>	<b>-2.70%</b>	<b>1.11%</b>	<b>2.49%</b>	<b>5.74%</b>
Massachusetts	5.67%	1.06%	-3.22%	-2.63%	1.48%		
New Hampshire	4.20%	-0.84%	-2.02%	-0.24%	2.93%		
Rhode Island	4.33%	1.69%	-0.79%	-3.46%	0.57%		
Vermont	5.92%	3.89%	-0.07%	-3.50%	3.02%		
<i>New England</i>	<i>5.34%</i>	<i>1.33%</i>	<i>-2.09%</i>	<i>-2.32%</i>	<i>1.20%</i>	<i>4.01%</i>	<i>4.37%</i>

\* these figures are estimates

**Maine Today:** In 1995, Maine's Gross State Product was estimated to be about \$32.6 billion. On average over the past seven years, Gross State Product has been increasing at a rate of about 2% per year, generally faster than the increase in New England's Gross State Product. Maine's Gross State Product is typically less than that of Massachusetts, Connecticut and New Hampshire, but greater than Vermont and Rhode Island.

### Data Source

U.S. Department of Commerce, Economics & Statistics Administration, Bureau of Economic Analysis, Regional Economic Information System: Gross State Product by Industry 1969-1993 for the States and Regions of the Nation.

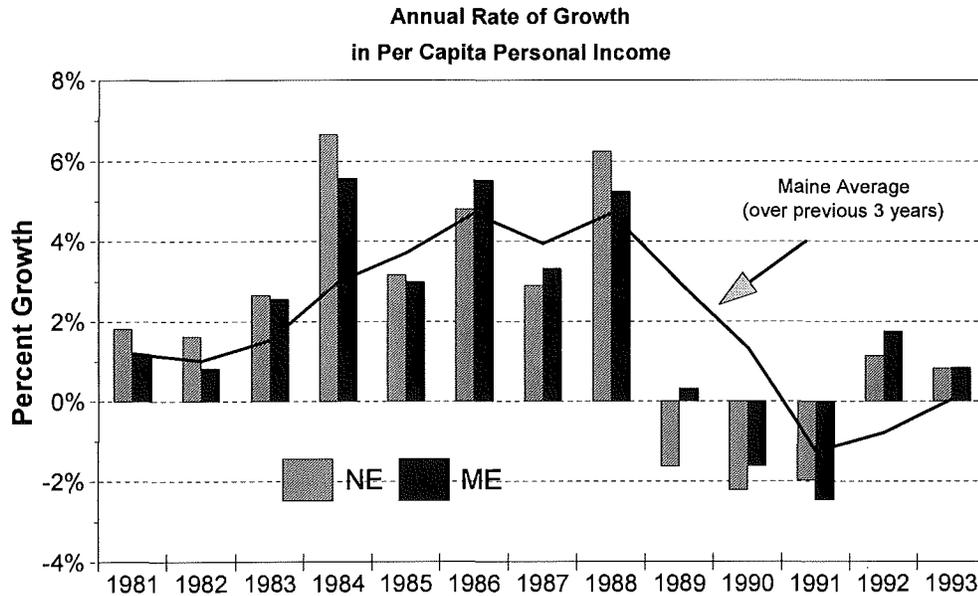
# Personal Income

**Benchmark:** Real per capita income in Maine will continually increase each year from now until 2000.

## About This Performance Measure

Per Capita Income reflects the average amount of money earned by Maine people. It includes wages and salaries, other labor income, dividends, interest, rent, and transfer payments. It is calculated by taking the total of all personal income and dividing that by population.

We are concerned with the growth in amount of money earned in Maine compared to other New England states because (1) New England tends to reflect the national trends and (2) because we are in competition with these states for economic development. The income figures used here have been adjusted for inflation, known as real income.



**Maine Today:** Although Maine's growth in gross state product and in employment exceeds New England's growth, this has not produced comparable advantages in per capita income. In 1994, Maine's per capita income was estimated to be \$15,197, the lowest in New England.

### Data Source

U.S. Department of Commerce, Economics & Statistics Administration, Bureau of Economic Analysis, Regional Economic Information System: Total Personal Income & Earnings by Industry 1969-1993 for the States and Regions of the Nation, August 1994.

# Employment

**Benchmark:** Employment in Maine will continually increase each year from now until 2000.

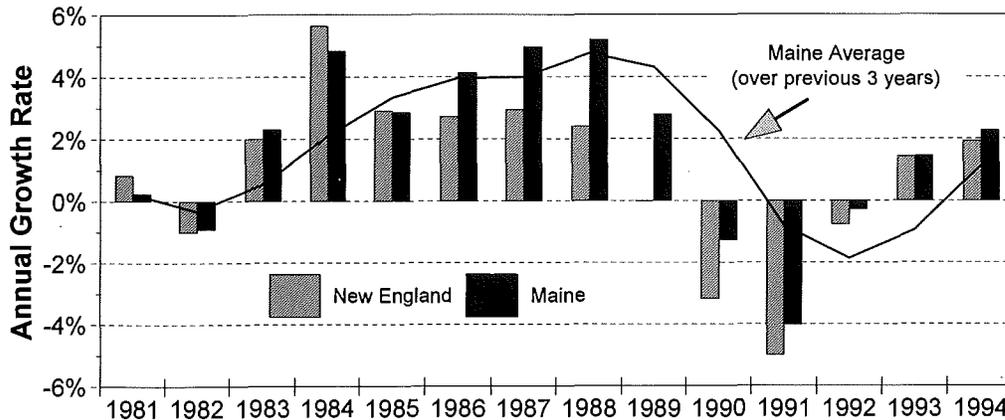
## About This Performance Measure

This measure is technically called Annual Average Nonfarm Wage and Salary Employment. It includes all employment, full and part time, for which wages are paid. It does not include the self employed, nor does it include agricultural employment for historic reasons. In the table, figures are rounded to the nearest 100.

Change in Employment, by Sector 1989-1994			
Sectors	1989	1994	5-Year Change in Employment
Goods Producing	138,300	112,800	(25,500)
Mining	100	100	0
Construction	32,700	21,000	(11,700)
Manufacturing	105,500	91,600	(13,900)
Durable goods	49,500	41,000	(8,500)
Nondurable goods	56,000	50,700	(5,300)
Service Producing	403,500	418,400	14,900
Transportation and Public Utilities	22,000	22,700	700
Wholesale and Retail Trade	137,600	134,500	(3,100)
Finance, Insurance, and Real Estate	25,300	26,500	1,200
Services	124,500	141,000	16,500
Government	94,100	93,600	(500)
<b>TOTAL</b>	<b>541,800</b>	<b>531,200</b>	<b>(10,600)</b>

**Maine Today:** In 1994, nonfarm wage and salary employment in Maine was about 531,200, down 18% from five years previous. Growth rates in (nonagricultural) employment since the end of the recession in early 1993 have been around 2% per year. The Maine economy continues to produce new jobs faster than New England as a whole, though slower than the U.S. economy.

Annual Rate of Growth in Employment  
Nonfarm Wage & Salary Employment



**Data Source**

U.S. Department of Commerce, Economics & Statistics Administration, Bureau of Economic Analysis, Regional Economic Information System: Total Full Time & Part Time Employment Industry 1969-1993 for the States and Regions of the Nation, August 1994.



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# Innovative Businesses

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For Maine to provide the opportunity for raising the standards of living for all its citizens, the state needs to encourage and nurture businesses that will set the pace of innovation in serving new markets, making new products, and exploring new lines of business and new services. Entrepreneurs must be encouraged to invest in Maine. New business formation is an important component to sustain a vital economic base. To compete in a global economy, Maine businesses need to increase the value of goods and services sold out of state and country. Maine must adequately fund its colleges and universities and increase the number of earned doctorate scientists, engineers, and graduate students. Maine companies must encourage employee involvement in strategic decision making.

This section measures Maine's business innovations by looking at efforts to expand to new domestic and international markets, create new products and services, and invest in research and development. It also measures the number of new businesses started in Maine in comparison to the other New England states. Also measured is the extent to which companies actively seek employee ideas for changes.

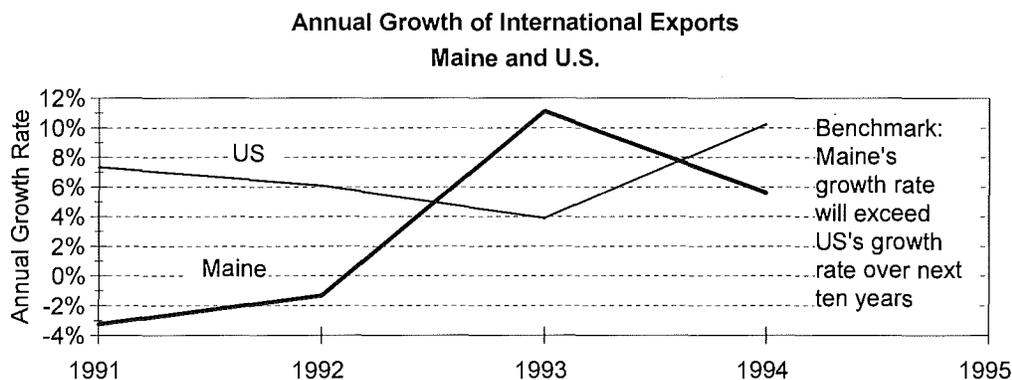
Other initiatives which have overlapping concerns with regard to Innovative Businesses include Charting Maine's Economic Future, the state's economic development strategy, the Governor's Advisory Council on International Trade, the Maine Science & Technology action plan and report card, and the Commission on Performance Budgeting.



# Value of Goods Exported Internationally

**Benchmark:** Maine's international exports will grow faster than US international exports annually between now and 2005.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.



## Why This is a Performance Measure

It is imperative that Maine compete in a global economy. That's what other states and countries are doing, and if Maine is to foster economic growth, it must keep pace.

## About This Performance Measure

This measure looks at the annual growth in dollar value of all exported products from Maine to other countries relative to the annual growth in exports for the US as a whole. It does not include shipments smaller than \$2,500 value, or the value of services exported. The figures for Maine do not include exports to other states.

**Maine Today:** In 1994, Maine's rate of growth in the value of goods exported internationally did not keep pace with the growth in US exports. In 1994, Maine's exports grew by 5.6% compared with a growth rate for the U.S. of 10.2%.

## Related - A Comparison of Maine to Other States

In 1994, Maine was ranked 42nd in growth of exports among the 50 states, Puerto Rico, and D.C. And Maine's exports as a percentage of its total output was less than two-thirds that of the national average. However, as of the third quarter of 1995, Maine was ranked 11th in the nation in terms of growth in exports for the year to date, suggesting that perhaps Maine's growth rate has exceeded the US growth rate for 1995, although final figures were not available at press time.

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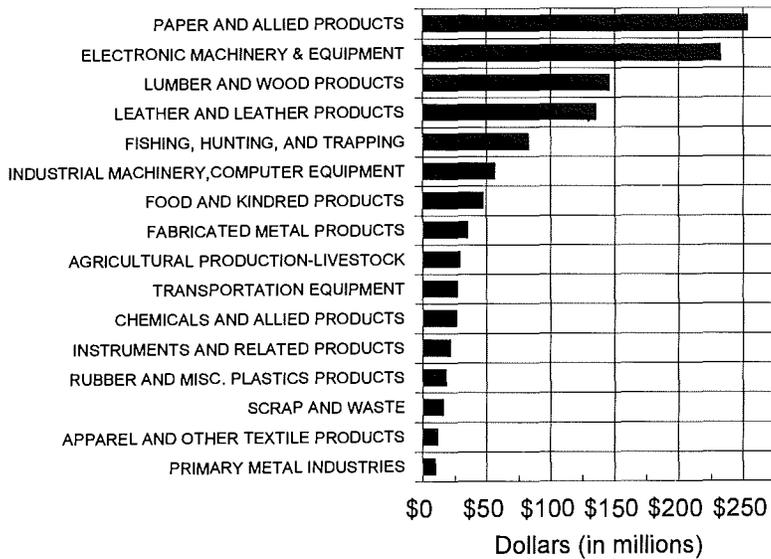
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**Value of Goods Exported Internationally**

**Related - Top Internationally Exporting Industries**

The value of Maine's exports are quite concentrated in a few industrial sectors, although Maine does in fact export a very wide variety of goods. Of total exports, about a third are paper and allied products, electronic machinery and equipment, lumber and wood products, leather and leather products, fishing, hunting, and trapping, industrial machinery, computer equipment, food and kindred products, fabricated metal products, agricultural production-livestock, transportation equipment, chemicals and allied products, instruments and related products, rubber and misc. plastics products, scrap and waste, apparel and other textile products, and primary metal industries.

**1994 Values of International Exports Industries with over \$10 M in Exports**



**Related - Maine Exports by Country**

Country	Jan. - Sept. 1995
Canada	\$384,669,792
Malaysia	\$131,128,380
Japan	\$90,341,634
United Kingdom	\$50,703,619
Hong Kong	\$46,154,652
South Korea	\$41,677,906
France	\$40,265,691
Singapore	\$39,157,075
Belgium	\$26,814,253
Taiwan	\$25,957,549
Australia	\$24,991,354
Israel	\$21,524,984
Germany	\$20,624,771
Netherlands	\$13,711,886

Data Source

World Trade Wise published by the Maine World Trade Association; also Massachusetts Institute of Social and Economic Research.

# Sales of Goods and Services in other States and Countries

**Benchmark:** There will be a substantial increase in the amount of sales of goods and services in other states and in other countries.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

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## Why This is a Performance Measure

Unlike performance measure number 4, this one tracks SERVICES in addition to goods, and also tracks sales in other STATES.

## About This Performance Measure

This measure is based on *The 1995 Maine Business Performance Survey* because there are no other sources of data which reflect exports to other states or which track exports of services. The measure consists of two components: (1) sales of goods and services in other states; and (2) sales of goods and services in other countries.

**Maine Today:** Forty-five percent (45%) of Maine companies generate sales in other states, and the average amount of sales generated in other states, among all Maine companies, is about 19%. Eighteen percent (18%) of Maine companies generate sales in other countries, and the amount of sales generated in other countries, among all Maine companies, is about 2%.

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### **Data Source**

The 1995 *Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.

# Number of New Businesses Started

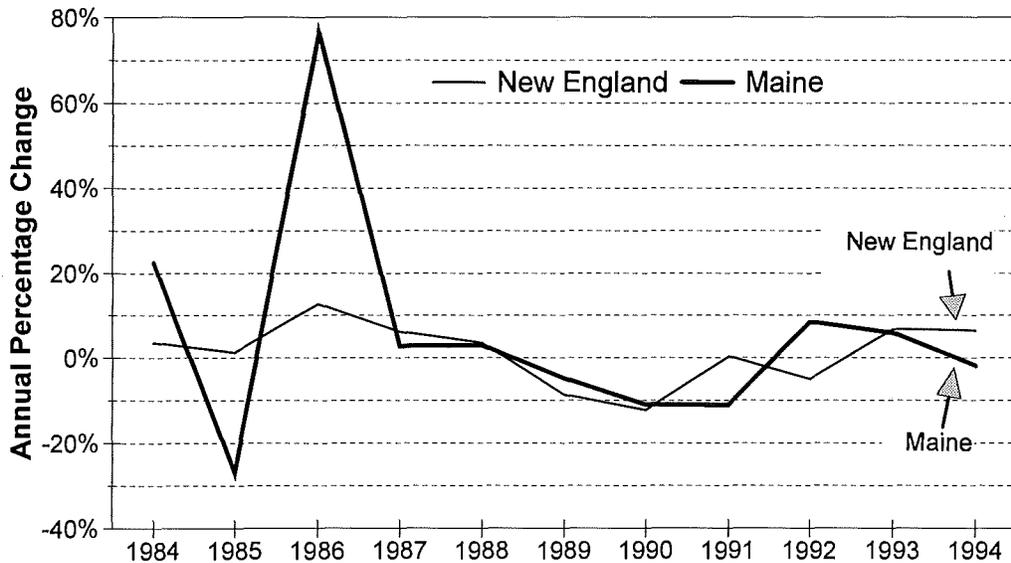
**Benchmark:** Maine's annual change in number of new business starts will exceed New England's annual change in number of new business starts for each year from now until 2005.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

## About This Performance Measure

This measure tracks the change in number of new businesses started comparing Maine to New England. The performance measure itself does not consider number of business failures, acquisitions or mergers. It is the number of businesses each year that are "a new registration" with the state or an applicant for a new account number with the state's department of employment security.

Annual Change in Number of New Business Starts ME & NE



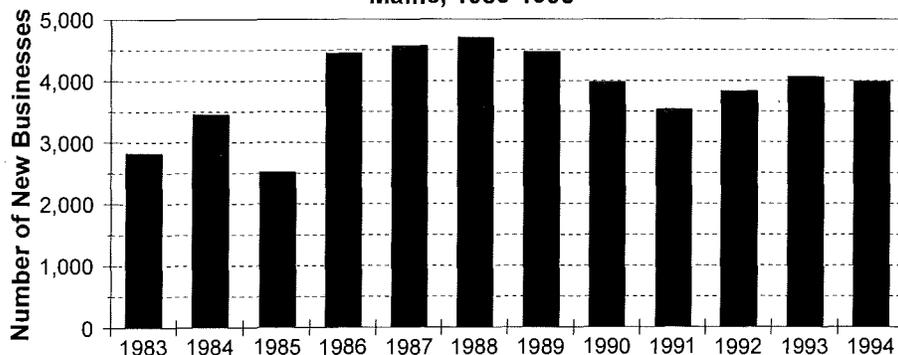
## Why This is a Performance Measure

*Number of business starts* is an indicator of economic optimism. Although it does not account for the NET change in number of businesses operating in Maine, it is an indicator of the availability of investment capital and perceived economic opportunities.

## Related - Actual Number of New Business Starts

Unlike the performance measure which looks at annual change in the number of new business starts, it is useful to look at actual number of new business starts, annually.

Actual Number of New Business Starts  
Maine, 1983-1995



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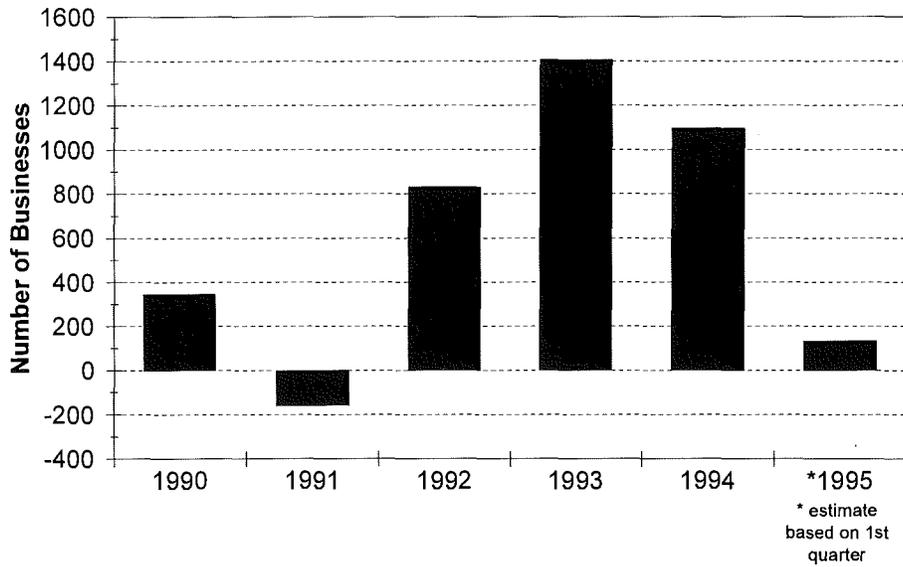
**Number of New Businesses Started**

**CONTINUED**

**Related - Net Number of New Businesses Formed**

Although comparable data for New England doesn't exist, it is useful to look at NET formations for Maine. This is determined by adding all new and successor employment accounts with Department of Labor minus all account terminations.

**NET Number of New Business Formations  
In Maine**



**Data Source**

Small Business Administration and Maine Department of Labor.

# National Rank on Technology

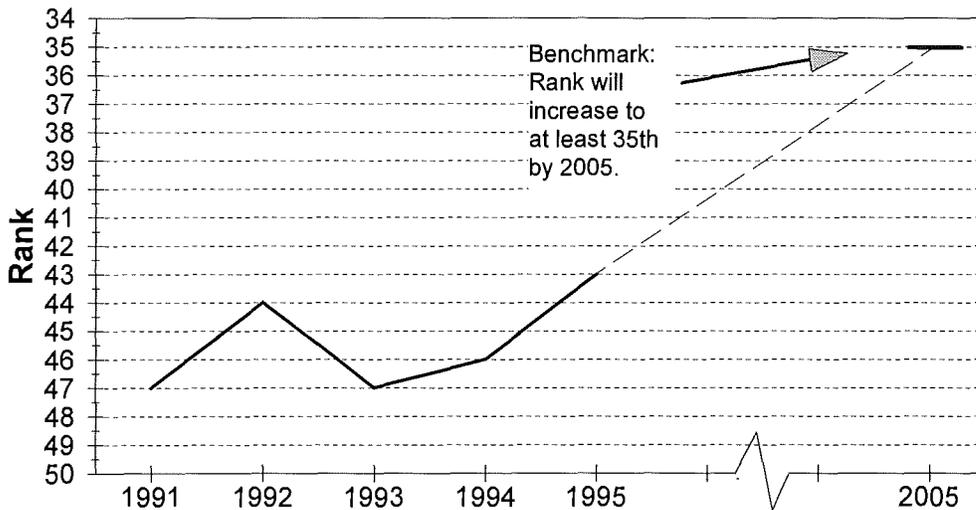
**Benchmark:** National rank on the CfED Technology Resources Index will improve to at least 35th by the year 2005.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

## About This Performance Measure

The Corporation for Enterprise Development (CfED) tracks several indicators of economic health for each of the 50 states. Their Technology Resources Index is a composite of (1) number of Ph.D. scientists, engineers, and graduate students; (2) number of patents issued; (3) amount of funds allocated to university, federal, and small business research & development. It is an indicator of a state's ability to create and capitalize on high-tech opportunities.

**Maine's Aggregate Score from CfED's  
Technology Resources Index, 1991-1995**



## Why This is a Performance Measure

If Maine succeeds at increasing its technology development activities, as measured by rank on the CfED Technology Resources Index, this will likely result in increased innovation of new products and markets as stated in the goal.

**Maine Today:** Maine typically ranks low compared to all other states in the nation, and in 1995 ranked 43rd on the CfED Technology Resources Index.

Continued Next Page

**Related - Maine on Each Index Measure**

Between 1994 and 1995 Maine has not declined on any single component of the technology resources index, and consequently, went from grade F to grade D overall.

<b>Maine on the CfED Technology Resources Index</b>					
<b>Index Measures</b>	<b>1991 Grade=F Number</b>	<b>1992 Grade=D Number</b>	<b>1993 Grade=F Number</b>	<b>1994 Grade=F Number</b>	<b>1995 Grade=D Number</b>
1. Scientists & engineers per 1000 wkrs.	39.2	2.39	17.19	3.41	3.61
2. Science & engineering students per 1 million	546.72	547.15	606.45	688.71	688.71
3. Patents issued per 1 million residents	102.46	91.87	86.29	104.03	112.9
4. University R&D dollars per capita	16.35	19.22	21.93	18.72	49.07
5. Federal R&D dollars per capita	32.56	55.14	32.36	46.23	49.07
6. Small business innovation research grants	na	1.91	1.58	1.52	6.09
Aggregate, all measures	737.29	717.68	765.8	862.62	880.46

**Table Notes:**

- For 1991 CfED measured scientists and engineers per 1,000 workers.  
For 1993, the measure indicates the number of engineers, architects, surveyors, math and computer scientists, and natural scientists per 1,000 workers.
- From 1991-1995, this measure has reported the number of science and engineering students in doctorate-granting institutions, per 1 million population.
- This measure has not changed -- the number of patents issued per 1 million population.
- This measure has not changed -- research and development expenditures at doctorate granting institutions, dollars per capita, reported by fiscal year.
- For 1991, 1993-1995 this has been measured in terms of the Federal obligations for research and development, dollars per capita.
- This measure became part of the index in 1992. It tracks the Small Business Innovation Research Grants awarded (in dollars) per worker.

**Data Source**

*The 1995 Development Report Card for the States: Economic Benchmarks for State & Corporate Decision-Makers*, published by the Corporation for Enterprise Development, Washington, D.C.

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# Number of Companies with New Products or Services

**Benchmark:** There will be a substantial increase of the number of Maine companies that develop new products or services.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

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## Why This is a Performance Measure

Given the importance of flexibility and diversity in today's economy, new product and service development is fundamental to economic growth.

## About This Performance Measure

This performance measure relies on the *1995 Survey of Maine Businesses*. Companies were asked if they had developed new products or services within the last 12 months.

<p><b>Maine Today:</b> Forty-four percent (44%) of Maine companies developed new products or services within the past 12 months, compared with 47% who did not.</p>
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## Related - Increased Development Among Manufacturing and Large Companies

Among manufacturing companies, 66% have developed new products or services, substantially more than among non-manufacturing companies. Developing new products or services was also found to be more prevalent among larger companies.

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### Data Source

The *1995 Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.

# Number of Companies with New Lines of Business

**Benchmark:** There will be a substantial increase in the number of companies that develop new lines of business.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

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## Why This is a Performance Measure

Entirely new lines of business gained via product development, acquisitions, and mergers represents an increase in employment and contributes to economic growth.

## About This Performance Measure

This performance measure relies on the *1995 Survey of Maine Businesses*. Companies were asked if they had developed new lines of business, including acquisitions and mergers, within the last 12 months.

**Maine Today:** Eighteen percent (18%) of Maine companies report having developed new lines of business in the past 12 months, with 71% reporting they haven't.

## Related - Increased Development Among Manufacturing and Large Companies

There is little distinction between manufacturers and non-manufacturers with regard to development of new lines of business. However, larger companies have been much more likely to develop new lines of business.

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### Data Source

The *1995 Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.

# Employee Involvement in Company Changes & Enhancements

**Benchmark:** The number of companies actively seeking employee ideas for changes and enhancements will substantially increase.

**Towards Goal A:** Maine businesses will be world leaders in innovating new products, developing new markets, and creating new companies.

## Why This is a Performance Measure

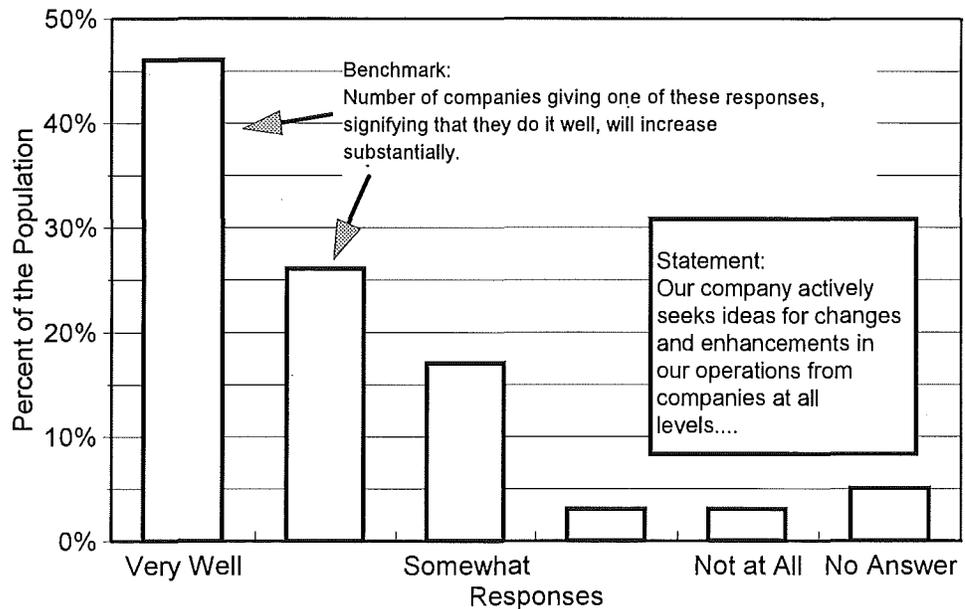
Where employees are involved in strategic decision-making, there is a greater likelihood of companies being able to respond more quickly and efficiently to emerging market opportunities. Among other positive results, productivity rates are likely to be higher.

## About This Performance Measure

Businesses were asked in the *1995 Survey of Maine Businesses* how well they seek ideas for changes and enhancements in operations from their employees at all levels.

**Maine Today:** Seventy two percent (72%) of Maine companies report that they do well or very well at actively seeking changes and enhancements from employees

**Extent to Which Companies Actively Seek Employee Ideas for Changes**



### Data Source

The *1995 Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.



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# Productive Workers & Rewarding Employment

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Efforts to improve the skills of workers through traditional education and private sector training are needed for a strong economy. This requires continuous investments in elementary and secondary schools, technical schools and colleges, and the public university system. It suggests that training and educational opportunities be accessible and affordable not only to traditional students but non-traditional students as well. Maine must also continue its effort to encourage safe workplaces for all workers.

Measured are the percentage of Maine's population with at least a high school diploma, and associates, baccalaureate, and graduate degrees awarded as a percent of population. Life-long learning has become a fact of life suggesting measurement of the accessibility, quantity, quality, and level of involvement in continuing and adult education at public colleges and universities along with the amount of private sector education and training activities. Job injury rates are also measured, which is a reflection of the relative safety of workplaces.

Other initiatives which have overlapping concerns with regard to Productive Workers and Rewarding Employment include the Taskforce on Learning Results, Maine Human Resources Development Council, Healthy Maine 2000, the state's economic development strategy and the Commission on Performance Budgeting.



# Percent of Population with High School Education

**Benchmark:** Percentage of population 25 years and older attaining high school education or beyond will increase to 90% by the year 2005.

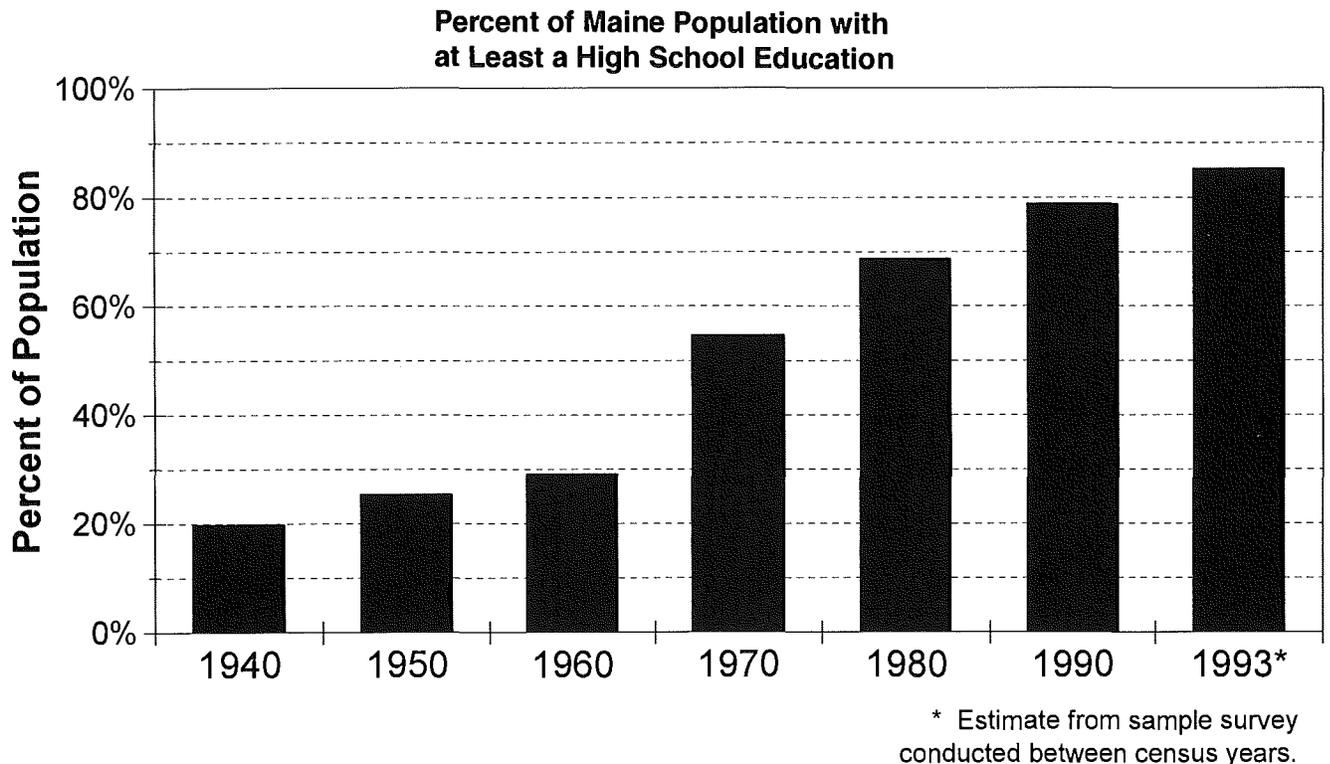
**Towards Goal B:** Maine workers will be among the highest skilled in the US, with the best capacity to use existing and emerging technologies and respond to rapidly changing workplaces and markets.

## Why This is a Performance Measure

A high school education is regarded as a baseline of education for a productive worker in a job that pays a liveable wage.

## About This Performance Measure

This is based on census data which is conducted every ten years. The percentage of population with a high school education aged 25 years and over has been a standard way in which the census has presented this data since 1940.



**Maine Today:** In 1990, 795,613 Maine people had a high school education, almost 80% of the adult population. The percentage has been steadily increasing for the past several years. High school attainment rates in Maine are higher than those for the nation as a whole.

Continued Next Page

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**CONTINUED****Percent of Population with  
High School Education**

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**Related - The Learning Results**

Maine is laying the foundation for the creation of a results-driven public education system by 2002. The Learning Results are the knowledge and skills which are essential for all Maine students so that they will be prepared for work, higher education, and citizenship. This knowledge and these skills build on the traditional basic skills go beyond them demanding that students be clear and effective communicators, self-directed and life-long learners, creative and practical problem solvers, responsible and involved citizens, collaborative and quality workers, and integrative and informed thinkers.

The Learning Results are in three parts. The Guiding Principles (listed in the previous sentence) are the broad categories of knowledge and skills which are the goals of education. The Content Standards are knowledge and skills in subject areas which lead directly to the achievement of the Guiding Principles. The Performance Indicators are the specific knowledge and skills in each subject area at key points in student learning. The Performance Indicators will be used to develop state and local assessments, and will guide local school districts in developing curriculum and instruction.

It is anticipated that in order to receive a high school diploma, all students must demonstrate achievement of the Learning Results. When such an assessment tool is in place, the Growth Council will consider developing a performance measure based on the Learning Results.

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**Data Source**

U.S. Census.

# Percent of Population with Two-Year Degrees

**Benchmark:** The percentage of Maine people with two-year degrees will increase to 9% by the year 2005.

**Towards Goal B:** Maine workers will be among the highest skilled in the US, with the best capacity to use existing and emerging technologies and respond to rapidly changing workplaces and markets.

## Why This a Performance Measure

In order to compete for skilled work, Maine workers will 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 competition, product, and service innovations. Percent of population with two-year degrees is singled out as a performance measure because relative to other New England states, Maine awards far fewer two-year degrees than four-year degrees (see related data, next page).

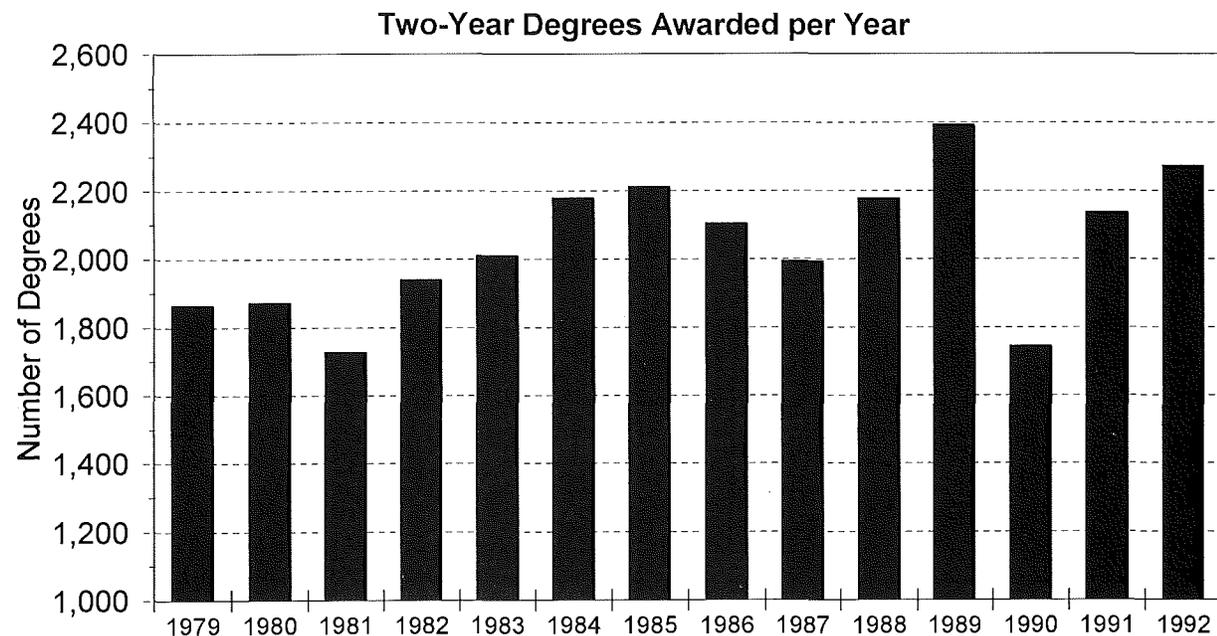
## About This Performance Measure

This measure looks at percent of Maine people who have obtained two-year (Associate) degrees. Raising this percentage to 9% will require awarding an additional 26,040 degrees, an increase of 30% in the number of degrees awarded.

**Maine Today:** In 1994, 6.9% of Maine people had two-year degrees; 85,560 people. This compares with a New England rate of 7.05% and a national rate of 6.2%.

## Related - Number of 2-Year Degrees Awarded Annually

This graph shows how many two-year degrees have been awarded each year in Maine. On average, the number has increased by 2.25% per year since 1979.



Continued Next Page

**CONTINUED****Percent of Population with  
Two-Year Degrees****Related - Enrollment in Two-Year and Four-Year Degree Programs**

Of all those enrolled in either two-year or four-year degree programs in Maine, only 19% of those people are in two-year programs. As the table shows, this is quite a different mix than exists in other New England states where many more of their students are enrolled in two-year degree programs, relative to four-year degree programs.

<b>1994 Mix of Two-Year and Four-Year Degrees Among People Enrolled in These Programs</b>		
State	Two-Year Degrees	Four-Year Degrees
Maine	19%	81%
N.H.	26%	74%
Vermont	26%	74%
R.I.	40%	60%
Mass.	44%	55%
Conn.	43%	57%

**Data Source**

*Higher Education: Maine and the Nation, Selected Data*; The Office of Institutional Studies, University of Maine; and Maine Dept. of Education, Division of Higher Education Services, Degrees Awarded by institutions 1978-1979 to 1991-1992.

# Percent of Population with Four-Year and Graduate Degrees

**Benchmark:** The percentage of Maine people having attained four-year degrees and graduate degrees will equal or exceed the percentage of New England people having attained four-year and graduate degrees by the year 2005.

**Towards Goal B:** 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.

## Why This is a Performance Measure

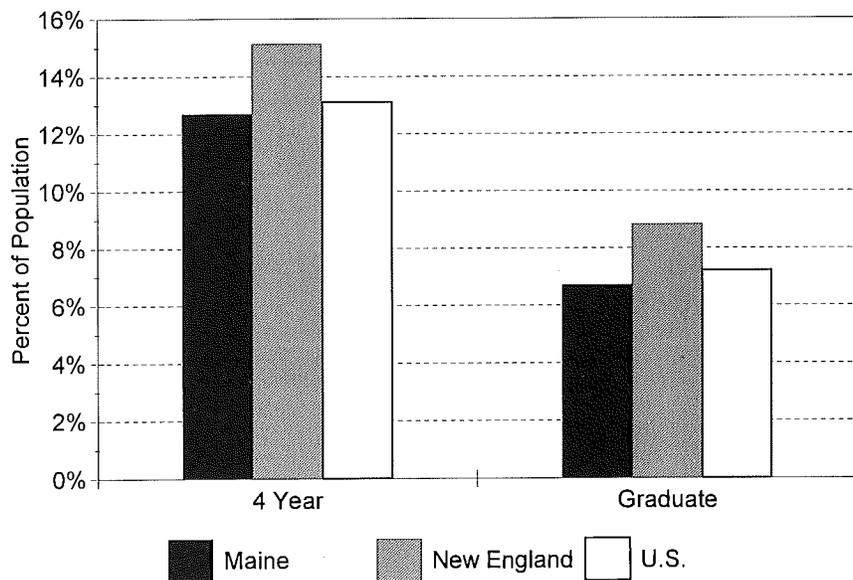
Maine workers must be adequately educated and trained to compete in a global economy. The level of educational attainment remains the most important criteria to maintain a competitive advantage - one that is not easily transferable.

## About This Performance Measure

The graph shows the percentage of the population that have attained four-year baccalaureate degrees and graduate degrees (the data includes only those graduate degrees earned by an individual who is earning a graduate degree for the first time). The percentage of Maine people who have attained these degrees is compared to the New England average, and the US average is shown for further comparison. The New England averages are high, reflecting the long established trend of New England being the nation's center for higher learning.

The benchmark calls for Maine to be on a par with New England by the year 2005. If Maine were on a par with New England today, our population would have an additional 30,000 4-year degrees and an additional 26,000 graduate degrees.

Maine, NE and US Degrees, by Type, as a Percent of Population - 1990



**Maine Today:** In 1990, 157,480 Maine people had attained four-year degrees, 12.7% of our population. This compares with 15.3% of the population of New England as a whole having attained four-year degrees. In 1990, 83,080 Maine people had attained graduate degrees, 6.7% of our population, compared with 8.82% of the New England population.

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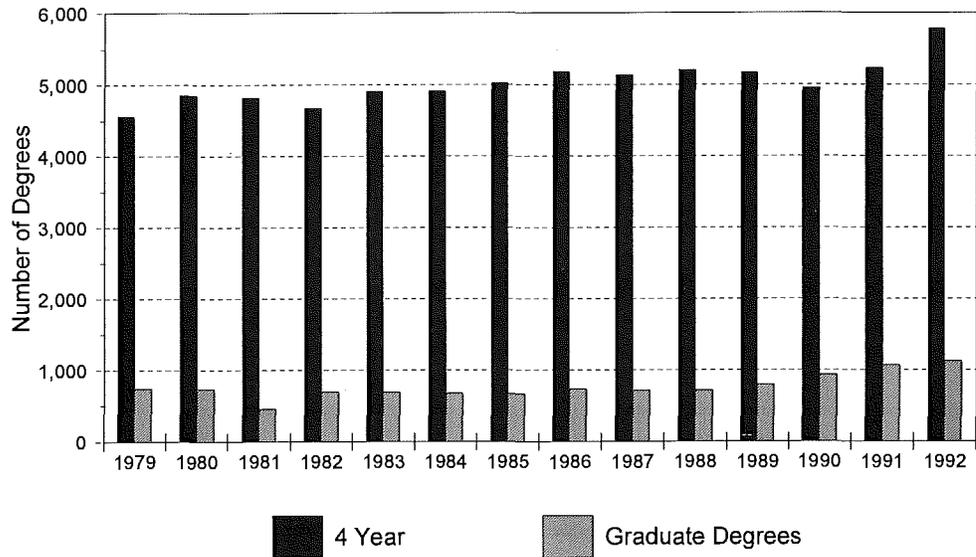
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## Percent of Population with Four-Year and Graduate Degrees

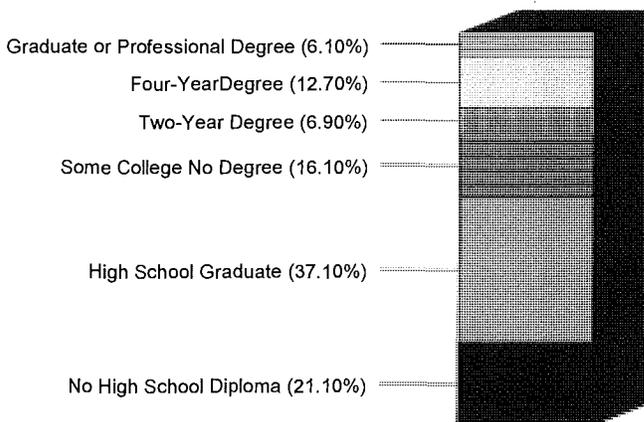
### Related - Number and Type of Degrees

The graph below shows how many four-year and graduate degrees have been awarded in Maine over the past 12 years. The average annual growth rate in attainment of four-year degrees has been 1.92% since 1979 and the average annual growth rate in attainment of first time graduate degrees has been 4.96%.

**Number of 4-Year and Graduate Degrees Awarded by Maine Institutions**



**Higher Education Attainment**  
Among Maine People 25 & Older: 1990



### Related - 1990 Mix of Higher Education Attainment

This graph reflects all Maine people aged 25 and older and shows the extent to which the population was educated in 1990. For each level of attainment, it is assumed that those people have also attained all lower levels.

#### Data Source

Maine Dept. of Education, Division of Higher Education Services, degrees awarded by institutions 1978-1979 to 1991-1992. And, *Higher Education: Maine and the Nation, Selected Data*; The Office of Institutional Studies, University of Maine.

# Front Line Employee Participation in Employer-Sponsored Training

**Benchmark:** Employer-sponsored training among front line workers will substantially increase.

**Towards Goal C:** Maine workers will have access to lifelong education and training which integrates opportunities in the public and private sectors.

## Why This is a Performance Measure

There is a growing concern that Maine's existing workforce is not adequately trained to meet ever changing work challenges, and that Maine workers must engage in lifelong learning to respond to evolving needs of business. A related concern is that training should be provided to *front line* workers, not just managers and other salaried employees.

There is a need for a public/private partnership to help train Maine's workforce. Employer sponsored training activity is assessed via this performance measure and is complementary to performance measures 11, 12, and 13 which assess public sector training activity.

## About This Performance Measure

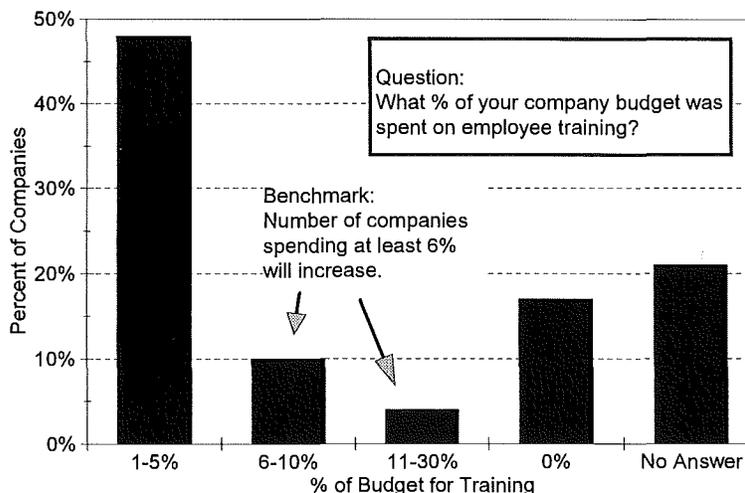
This measure looks at the extent to which employees earning less than \$35,000 per year (a rough delineation of *front line* workers) participate in employer-sponsored training relative to employees earning over \$35,000.

**Maine Today:** About 22% of employees earning under \$35,000 per year participated in employee-sponsored training in 1995, compared with about 53% of the employees earning over \$35,000 per year. Among all employees, regardless of income, about 35% participated in employee-sponsored training.

## Related - Company Spending on Employee Training

The average percent of budget spent by Maine companies on employee training is between 3 and 4%. Fourteen percent (14%) of Maine Companies report that they spend at least 6% of their budgets on employee training.

**Percent of Company Budgets Spent on Employee Training**



## Data Source

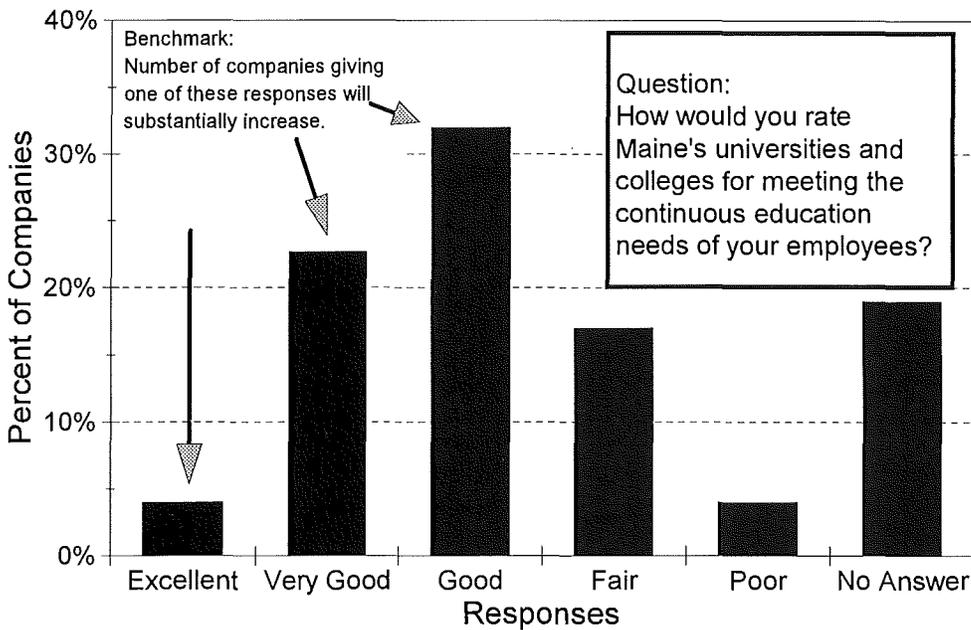
The 1995 Survey of Maine Businesses commissioned by the Maine Economic Growth Council. See Chapter 3.

# Business Opinion of Maine's Universities and Colleges

**Benchmark:** The number of businesses which rate Maine's colleges and universities as *excellent*, *very good*, or *good* will substantially increase.

**Towards Goal C:** Maine workers will have access to lifelong education and training which integrates opportunities in the public and private sectors.

**Business Rating of Universities and Colleges for Needs of Employees**



## Why This is a Performance Measure

There is a growing concern that Maine colleges and universities are not supplying the needs of Maine businesses and that many good quality jobs are being filled by people recruited from out of state. This measure looks directly to the business community to shed light on this issue.

## About This Performance Measure

This measure comes from the 1995 *Survey of Maine Businesses* which asked companies how they rate Maine's colleges and universities for meeting the continuous education needs of their employees.

**Maine Today:** Currently, 60% of Maine businesses rate Maine's colleges and universities as *excellent*, *very good*, or *good*.

### Data Source

The 1995 *Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.

# Citizen Opinion of Training and Education

**Benchmark:** The number of citizens who agree that there are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills will substantially increase.

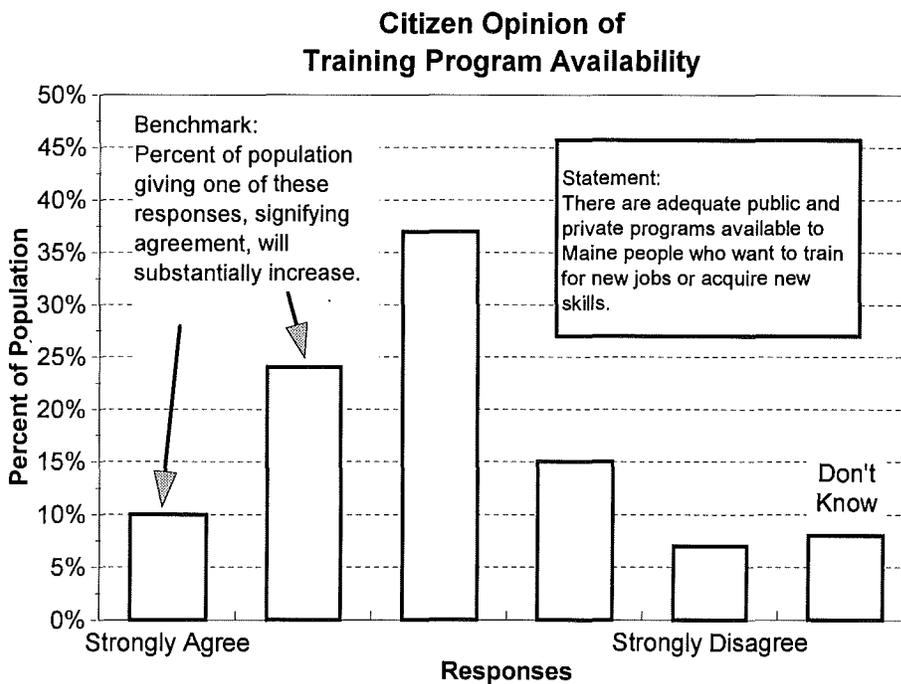
**Towards Goal C:** Maine workers will have access to lifelong education and training which integrates opportunities in the public and private sectors.

## Why This is a Performance Measure

Among Maine people, there is an increasing demand for quality training and education. In particular, Maine people want training and education which adequately prepares them for desired jobs.

## About This Performance Measure

Via the 1995 Survey of *Maine Citizens*, people were asked if they believe there are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills.



**Maine Today:** Thirty-four percent (34%) of Maine people agree with the statement that "there are adequate public and private programs available to Maine people who want to train for new jobs or acquire new skills."

Continued Next Page

**Related - Opinion of Grade Schools, University System, and Technical Colleges**

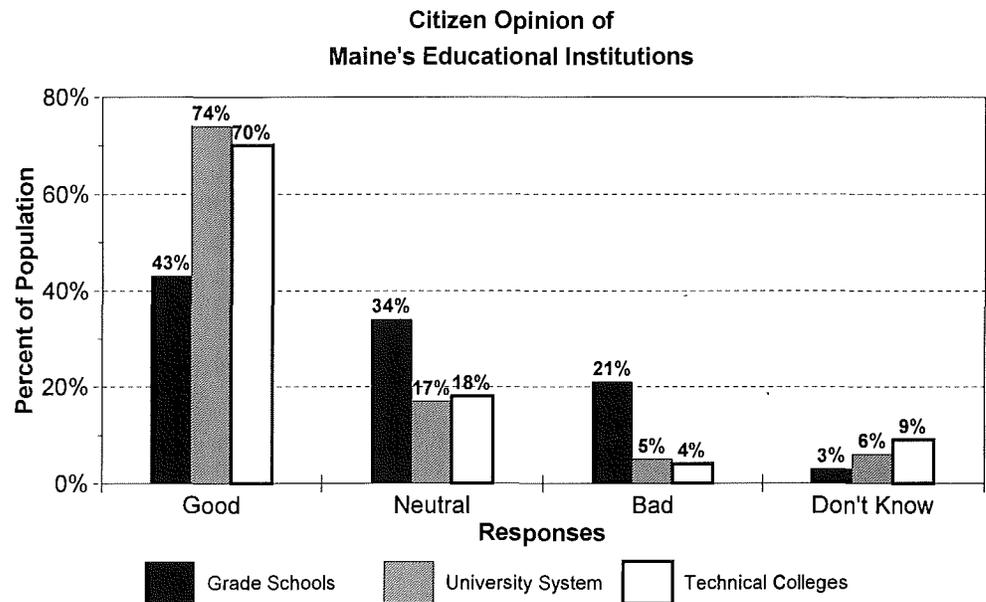
The 1995 Survey of Maine Citizens asked to what extent people agree with the following statements:

**Grade Schools:** Maine public schools, kindergarten through grade 12, are doing a good job preparing students for the future.

**University System:** The University of Maine System offers a quality education for Maine students who choose to pursue a four-year college education.

**Technical Colleges:** Maine's technical colleges offer a quality education for Maine students who choose to learn job-related skills in preparation for their careers.

In the graph below, those who answered that they agree with these statements are represented in the category *good*, those who disagree are represented in the category *bad*, and those who neither agreed or disagreed are represented in the category *neutral*.



**Data Source**

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3.

# Citizen Participation in Continuing and Adult Education

**Benchmark:** The number of people attending educational seminars, programs, or courses will substantially increase.

**Towards Goal C:** Maine workers will have access to lifelong education and training which integrates opportunities in the public and private sectors.

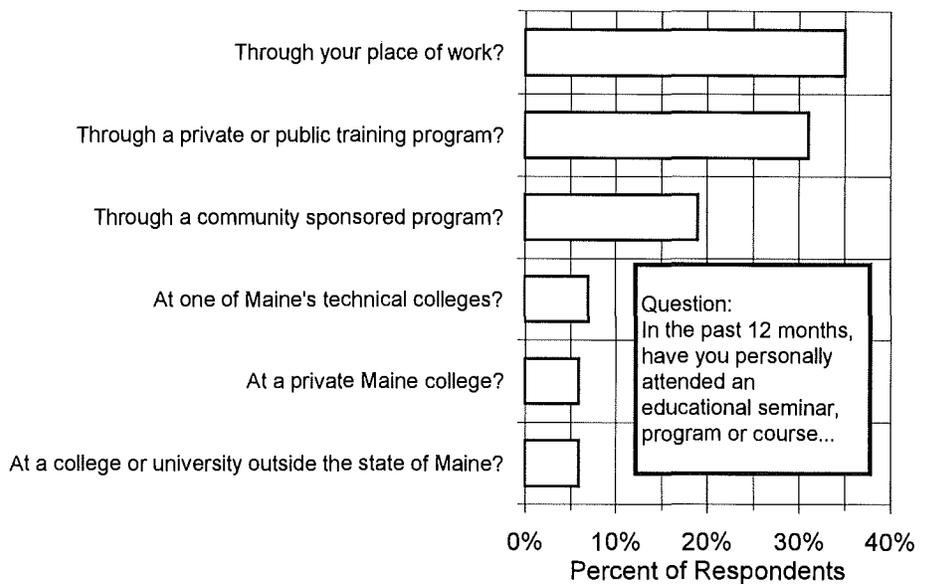
## Why This is Performance Measure

This is a measure of lifelong learning, regarded as essential to a workforce capable of responding to changing needs of employers. Technologies and markets are changing at alarming rates. Businesses will increasingly need to locate where workers have kept pace with such changes.

## About This Performance Measure

The 1995 Survey of Maine Citizens asked if people had attended an educational seminar, program, or course in the past 12 months and if so, where or what type did they attend?

## Educational Seminar, Program or Course Attendance



**Maine Today:** According to *The 1995 Survey of Maine Citizens*, 54% of Maine people have attended an educational seminar, program, or course in the past year, most commonly through one's place of work.

### Data Source

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3.

# Citizen Opinion of Access to Education and Training

**Benchmark:** The percentage of people able to attend courses that are affordable and of interest within an hour drive of their homes will increase substantially.

**Towards Goal C:** Maine workers will have access to lifelong education and training which integrates opportunities in the public and private sectors.

## Why This is a Performance Measure

Maine workers must have access to lifelong education and training which integrates opportunities in the public and private sectors. A well educated and trained workforce would suggest that facilities are reasonably accessible for continuing education and training opportunities.

## About This Performance Measure

Using a one way, one-hour drive as a determinate of access, citizens were asked if they would be able to attend courses that would be affordable and of interest to them.

**Maine Today:** Seventy-nine percent (79%) of respondents to the survey of Maine citizens said that if they wanted to further their education, they would be able to attend courses within a one way, one-hour drive that would be affordable and of interest to them. Fifty-nine percent (59%) responded that such courses were available "in their community." The data shows that courses are most accessible to southern Maine citizens and least accessible to citizens living in coastal regions.

## Related - Cost as a Barrier to Access

Twenty-six percent (26%) of the survey respondents agreed with the statement that "the cost of attending the University of Maine is affordable for those that want to attend," while 29% disagreed (44% were neutral or responded "don't know"). When asked in a similar way about the cost of attending Maine's technical colleges, 16% agreed that they are affordable, 37% disagreed, and 43% were neutral or responded "don't know."

## Data Source

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3.

# On-the-Job Injuries

**Benchmark:** Maine on-the-job injury rates will be no higher than national rates by the year 2000 and lower by the 2010.

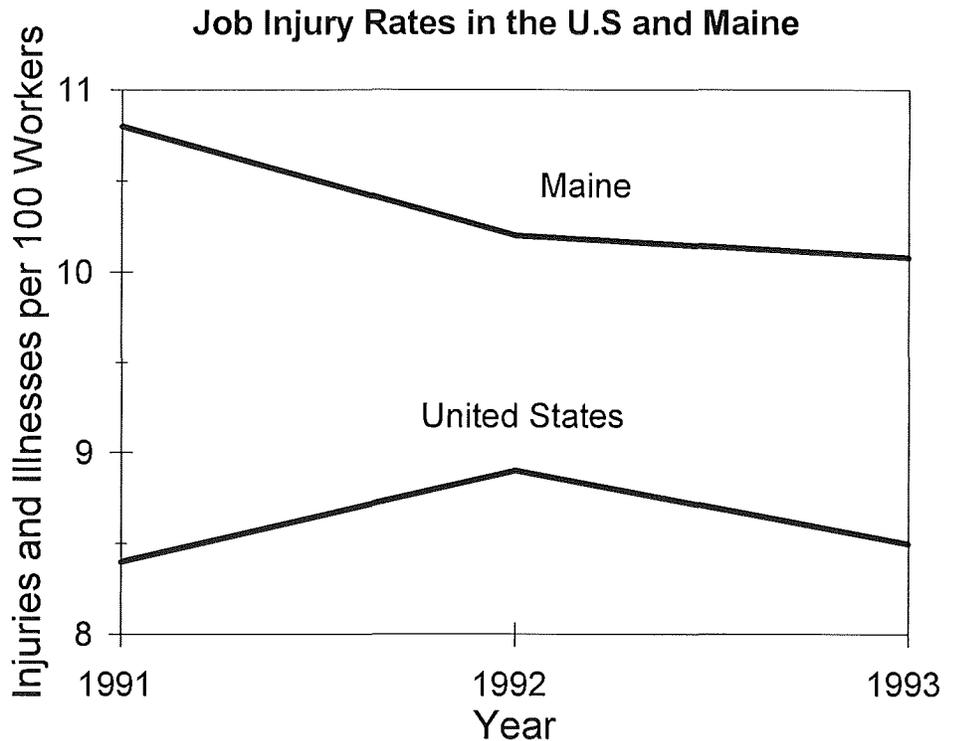
**Towards Goal D:** Workplaces in Maine will be healthy and safe places.

## Why This is Performance Measure

The extent to which Maine workplaces are safe has a bearing Maine's attractiveness to companies and workers. If injury rates are relatively high, it is an indicator to prospective companies of a high cost of doing business here. Similarly, it affects the willingness of individuals to live and work in Maine.

### About This Performance Measure

This performance measure tracks on-the-job injuries and illnesses in Maine per 1,000 workers compared to US rates. The graph is a simplistic representation and does not reflect recent years. In fact, there have been dramatic reforms in recent years designed to reduce the number of on-the-job injuries and the cost of workers' compensation insurance in Maine. Data for more recent years and into the future will likely show that Maine's on-the-job injury rates are improving relative to U.S. rates.



**Maine Today:** Although injury rates in Maine are in decline, the rates are not declining as fast as they are for the US, as a whole.

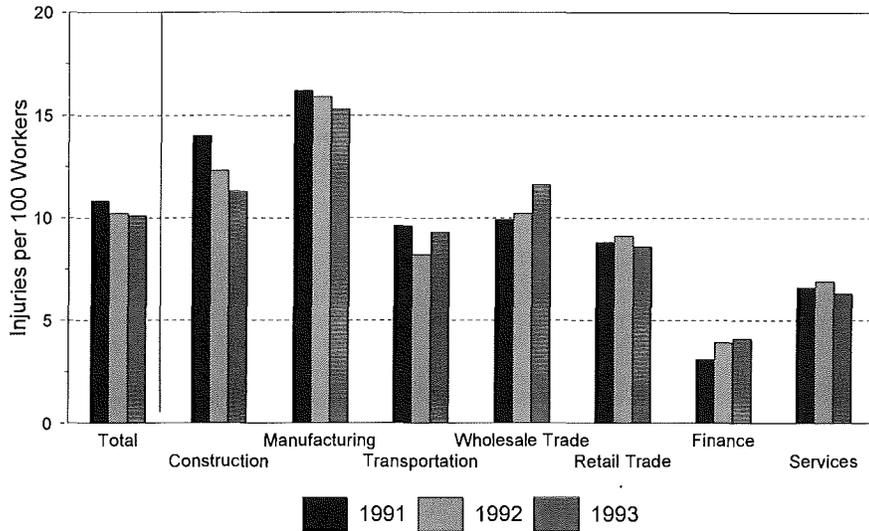
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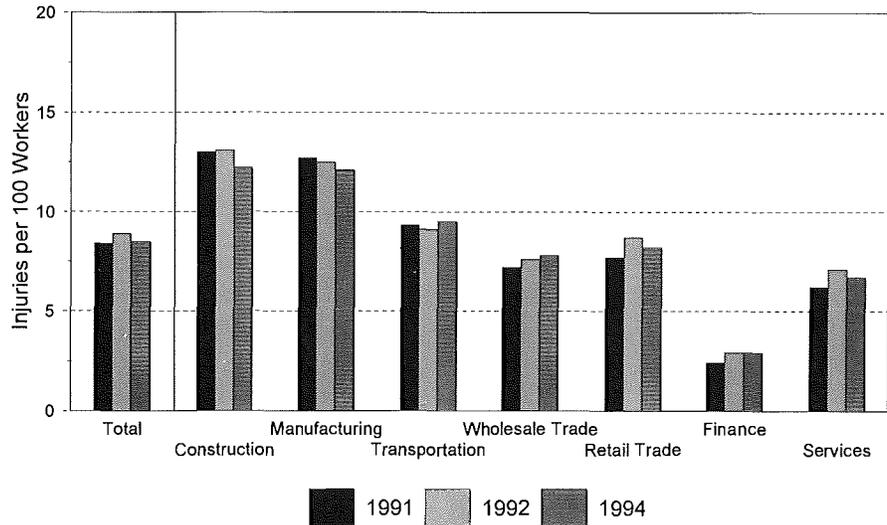
**Related - Maine and U.S. On-the-Job Injuries by Industry**

From 1991 to 1993, on-the-job injuries in Maine have decreased in every industry except wholesale trade and finance; and in the construction industry, the decrease has been dramatic. For the US as a whole, on the other hand, on-the-job injuries have increased in most industries, only having decreased in construction and manufacturing.

**Maine - Job Injury Rates  
 by Industry 1991 - 1993**



**US - Job Injury Rates  
 by Industry 1991 - 1994**



**Data Source**

Maine Dept. of Labor, Bureau of Labor Standards, *Annual Report on Occupational Injuries and Illnesses in Maine (1990-1993)*.



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# Vital Communities

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Maine is a state of communities shaped by income levels, shared interests, common heritage, and geography. The capacity to come together in communities is one of Maine's great strengths, but disparities in income and opportunity among communities diminish the possibilities for many. This section looks at how Maine people assess the state of community efforts to assist one another to solve problems, and whether economic disparities among regions within the state are decreasing.

To assess the relative disparities among counties, measurements focus on the average income in Maine counties and annual rate of growth in employment among counties with high unemployment. To assess disparity of income, measurements look at the growth in household income and the number of liveable wage jobs for Maine families. Focusing on equal opportunities for women and minorities, measurements look at the participation of women and minorities in various occupations and average earnings of males and females by occupation. A vital community requires citizen and business involvement which is measured by looking at citizen participation rate in politics, personal involvement in projects of community benefit, and business participation in school and civic events.

Other initiatives which have overlapping concerns with regard to Vital Communities include the Maine Human Resources Development Council, Sustainable Maine, the state's economic development strategy, and the Commission on Performance Budgeting.



# Income Disparity between Wealthiest and Poorest Counties

**Benchmark:** Average per capita personal income in the poorest counties will be at least 75% of average per capita personal income in the wealthiest counties by the year 2005.

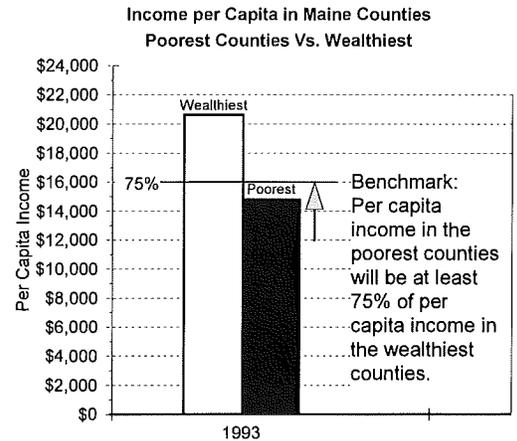
**Towards Goal E:** Disparities in income and opportunity among families and regions will be continually reduced.

Counties	1993 Avg. Income
Piscataquis	14,560
Washington	14,617
Waldo	14,963
Somerset	15,192
Arroostook	15,238
Franklin	15,713
Oxford	15,830
Penobscot	17,711
Androscoggin	18,286
Kennebec	19,114
Sagadahoc	19,156
Hancock	19,239
York	19,344
Knox	19,421
Lincoln	20,583
Cumberland	23,068

Average for four poorest: **\$14,833**

State Average: **\$17,627**

Average for four wealthiest: **\$20,604**



## Why This is A Performance Measure

Geographic disparities in the wealth of Maine people are detrimental to the economy and perpetuate the damaging notion of an existence of "two Maines."

## About This Performance Measure

Per capita income is a reasonable measure of relative wealth in Maine counties. It is calculated by dividing total income earned by the population.

Recognizing that there is also disparity among counties with regard to cost of living, the benchmark has been established at 75% rather than 100%. However, whether or not there is an adjustment for cost of living, relative income per capita is a good measure of the geographic disparities that exist in Maine. 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.

**Maine Today:** In 1993, the average income in Maine's poorest counties was about 70% of average income in the wealthiest counties.

### Data Source

Maine State Planning Office, adapted from Bureau of Economic Analysis (BEA) data.

# Employment in Counties with Highest Unemployment

**Benchmark:** For those counties that had unemployment rates above the state average in 1994, rate of annual employment growth will be greater than the rate of annual employment growth for the state as a whole from now until 2005.

**Towards Goal E:** Disparities in income and opportunity among families and regions will be continually reduced.

## Why This is A Performance Measure

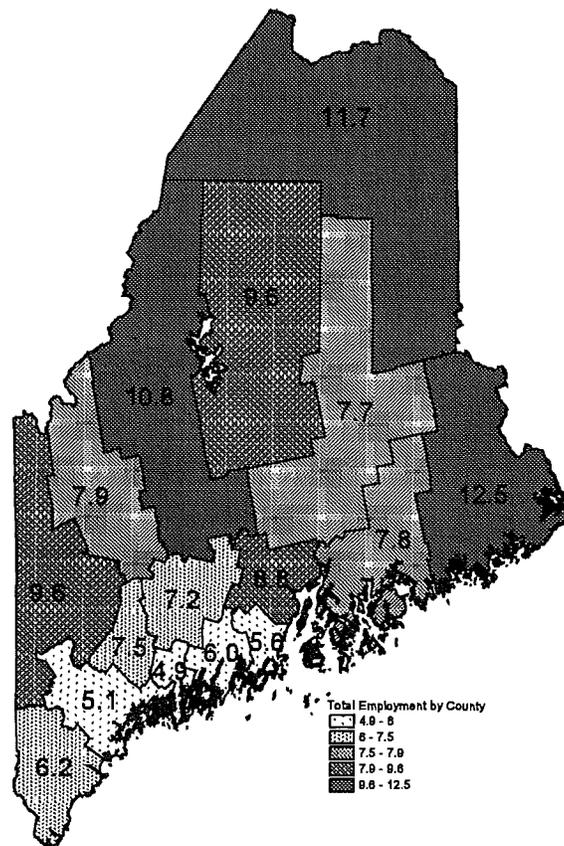
Related to performance measure number 20, this measure is also concerned with regional disparities and recognizes that a leading contributor to such disparities is high unemployment levels in certain parts of the state. Reducing unemployment in depressed areas is fundamental to minimizing regional disparities and contributing to economic growth.

### About This Performance Measure

To reduce the unemployment disparity among counties, we must increase employment in those counties where it's most difficult to get a job. The first graph on the following page shows which ten counties have higher unemployment rates than the state average. These are the ten counties with which this performance measure is concerned.

Specifically, this performance measure is concerned with how rapidly employment increases in these counties. The second graph on the following page shows how much employment grew in these ten counties from 1994 to 1995. On this graph, the counties are listed in order of highest unemployment rates to lowest.

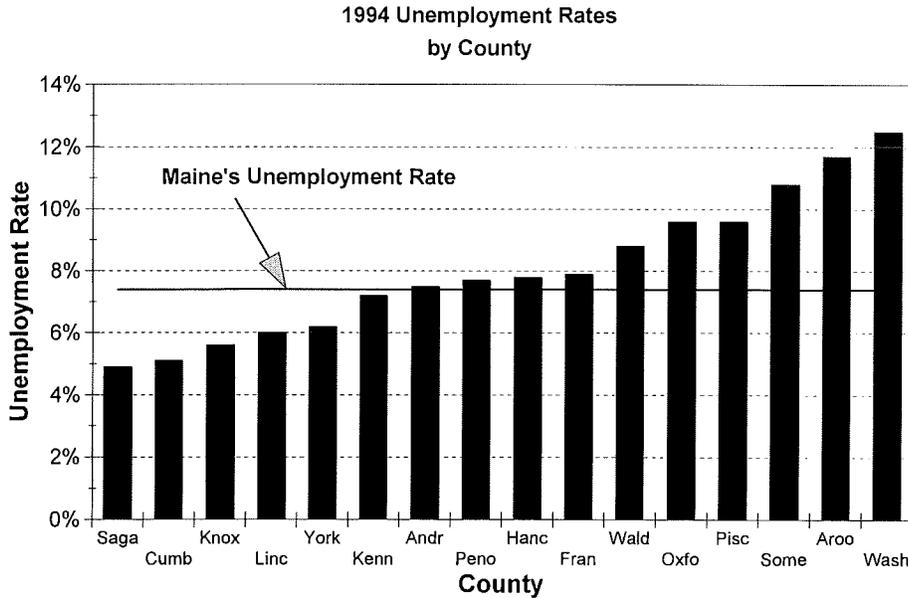
### Unemployment Rates, by County



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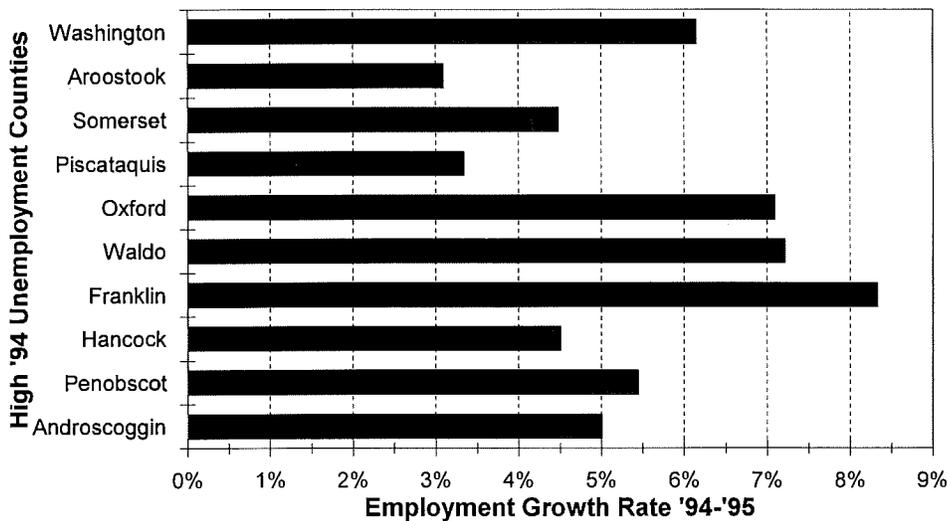
# Employment in Counties with Highest Unemployment

CONTINUED



**Maine Today:** Between May, 1994 and May, 1995, employment in the state as a whole grew by about 5%. Over this same period, employment in Washington, Oxford, Waldo, Franklin, Penobscot, and Androscoggin counties grew at a faster rate than for the state as a whole. Employment growth did not keep par with the state in Aroostook, Piscataquis, Somerset, and Hancock counties.

## Rate of Employment Growth from '94 to '95 in Counties with the Highest Unemployment Rates in 1994



**Data Sources**

From the Maine Department of Labor, Division of Economic Analysis and Research, Statistical Data Series: CLF 94, CCLF 05-95.

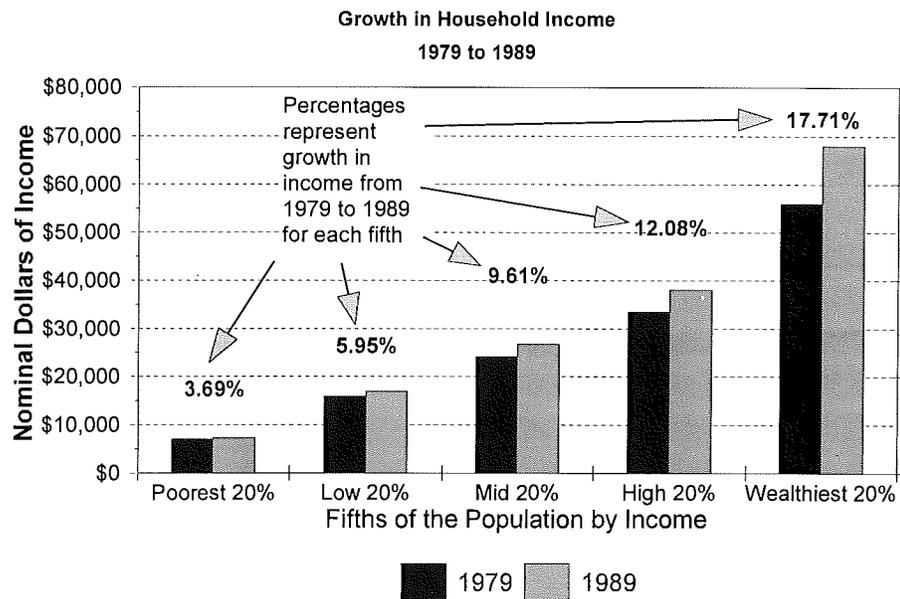
# Income Disparity between Wealthiest and Poorest Families

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

**Towards Goal E:** Disparities in income and opportunity among families and regions will be continually reduced.

## About This Performance Measure

This measure looks at the population divided into fifths by income. It looks at 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, and this will result in the incomes of middle class people being raised as well.



## Why This is a Performance Measure

Disparities in income and opportunity threaten the long term stability of the economy. When wealth becomes concentrated among select people, there is a reduction in economic growth as fewer and fewer people make up the demand for goods and services that spurs business growth. Disparity in income and wealth diminishes quality of life for many and results in barriers to achieve a vision for a unified Maine economy.

**Maine Today:** From 1979 to 1989, the income of Maine's poorest grew by 3.9% while the income of Maine's wealthiest grew by 17.71%. Factoring in inflation, actual spending ability among the poorest fifth declined by about 30% (actual spending ability declined among the wealthiest fifth also but not nearly as much). Indeed, the rich have been getting richer and the poor have been getting poorer.

## Related - Income Inequality Nationally

In 1994, the wealthiest fifth of US families earned 44.6% of all US income, while the poorest fifth earned 4.4%. This is the widest income gap since the census bureau began tracking this in 1947. Income disparity in the U.S. is among the highest of all industrialized nations.

### Data Source

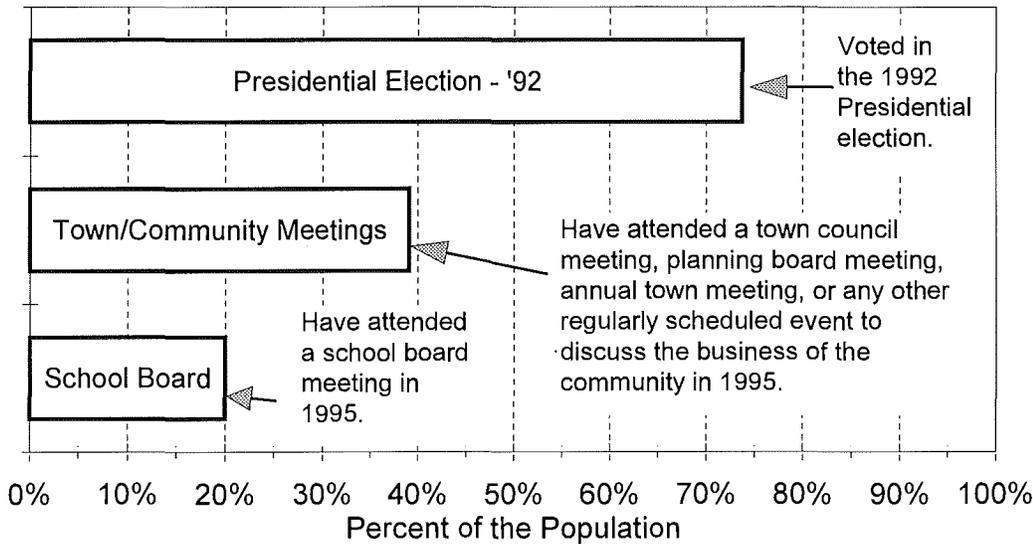
Maine State Planning Office, *Study of Family and Household Income*, March 1994. Data from the US Census.

# Citizen Participation in Politics

**Benchmark:** The percentage of Maine people who attend town or community meetings will substantially increase.

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

**Citizen Participation in Politics**



## Why This is a Performance Measure

Citizen participation in politics is fundamental to a democracy and a strong, stable economy. This performance measure examines people's willingness to participate.

Participation in local affairs is particularly beneficial to community vitality, thus attendance at town and community meetings has been chosen as the performance measure. Although generally a positive sign, at times high participation can be a sign of community unrest.

## About this Performance Measure

The actual performance measure is the middle bar of the graph: *attendance at town/community meetings*. This data is the result of a telephone survey which asked the question stated in the graph. The other two bars in the graph represent interesting, related data.

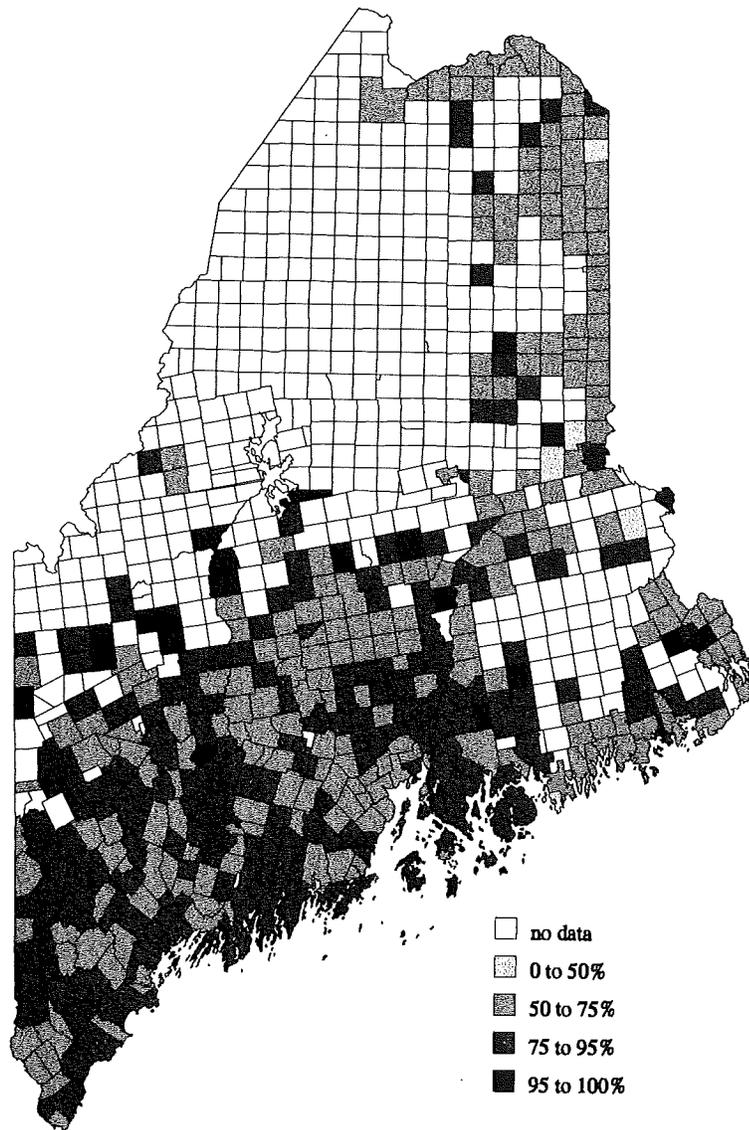
**Maine Today:** Thirty-nine percent (39%) of Maine people have attended a meeting to discuss community business in the past year. Related, about 20% have attended a school board meeting.

Continued Next Page

**Related - Voter Turnout**

In the 1992 Presidential election, 73.8% of all registered voters in Maine actually voted. This was the best voter turn out of any state in the nation for that election.

**Percent of Eligible Voters  
that Voted in the 1992 Presidential Election**



**Data Source**

The 1995 *Survey of Maine Citizens* commissioned by the Maine Economic Growth Council. See Chapter 3. Also, the Maine Office of GIS.

# Citizen Participation in Civic Activities

**Benchmark:** The number of people who agree with the statement: "I try to take time each year to involve myself in a project that benefits my community" will increase substantially.

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

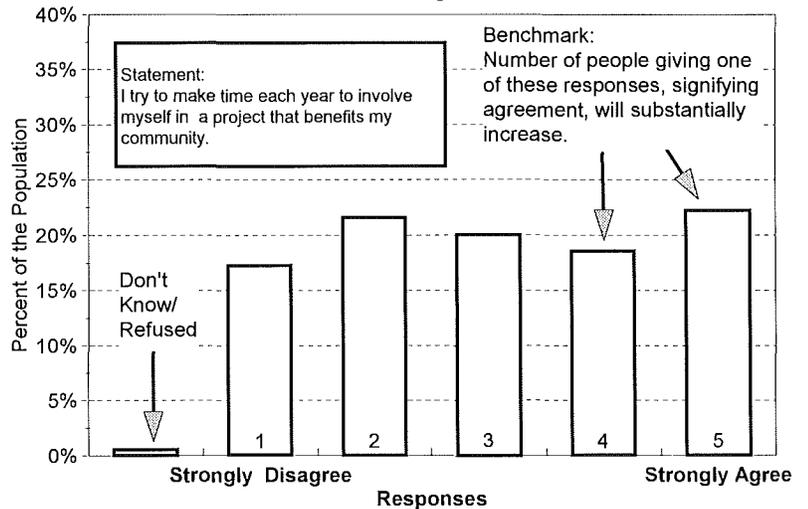
## Why This is a Performance Measure

Participating in projects that benefit one's community is an excellent indicator of community vitality, and it bodes well for stable, long term economic development.

## About This Performance Measure

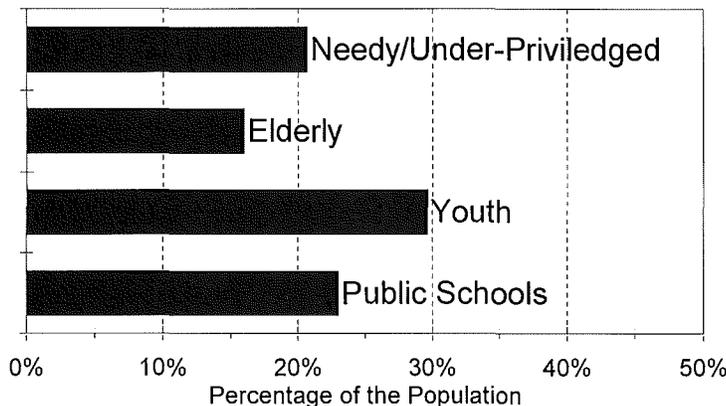
Via the 1995 Survey of Maine Citizens, Maine people were asked the extent to which they get involved in community projects.

**Personal Involvement in Projects of Community Benefit**



**Maine Today:** Forty-one percent (41%) gave their involvement a score of 4 or 5, on a scale of 1 - 5, 5 being greatest involvement. Thirty-nine percent (39%) is not very involved in community projects.

**Percentage of the Population Who Give Time to Community Organizations (by organization type)**



## Related - Giving Time to Organizations

Although not part of the actual measure, people give most of their time to youth organizations and schools, followed by needy/under-privileged and the elderly, as the graph shows.

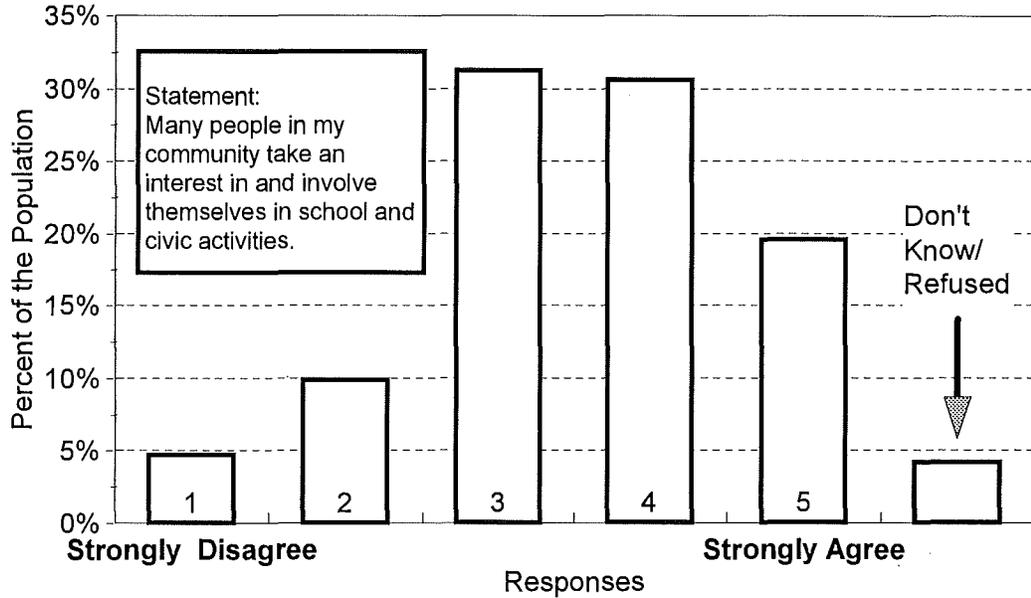
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**CONTINUED Citizen Participation in Civic Activities**

**Related - Perception of Community Involvement**

The graph below shows responses to a question about one's perception of how involved people are in the community, as opposed to one's own statement of actual involvement, which the performance measure looks at. The distribution towards *strongly agree* suggests that people *like the idea* of people being involved in the community more than they are *actually* involved.

**Interest and Involvement in School and Civic Activities**



Statement:  
Many people in my community take an interest in and involve themselves in school and civic activities.

Don't Know/Refused



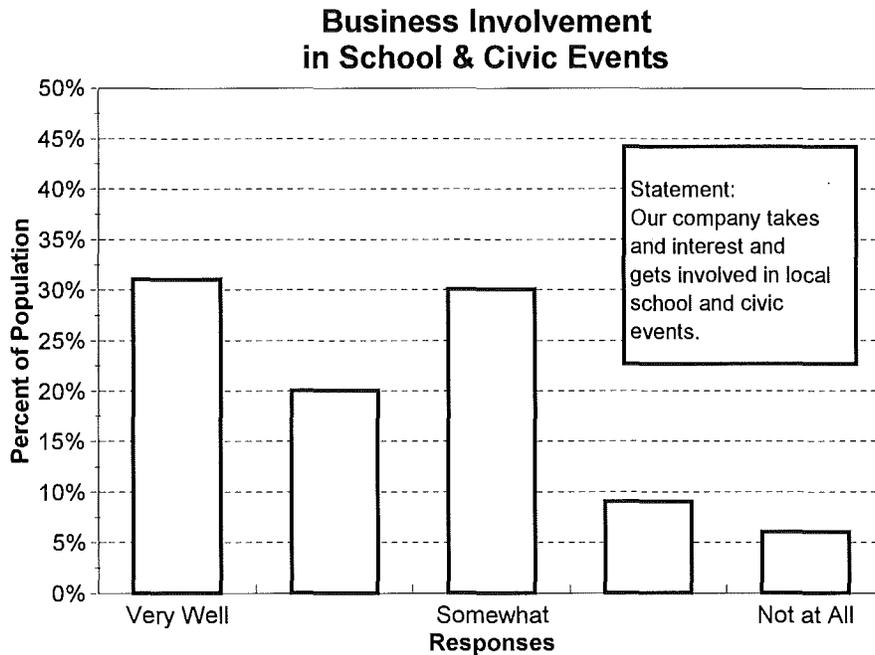
**Data Source**

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3.

# Business Participation in School and Civic Events

**Benchmark:** Percentage of businesses who are interested and involved in local school and civic events will substantially increase.

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



### Why This is a Performance Measure

Partnerships between businesses and schools or other community groups often result in benefits for the community and the business. It is a proven avenue towards economic growth.

### About This Performance Measure

Maine businesses were asked to rate themselves with regard to their involvement in school and civic events.

**Maine Today:** Fifty-one percent (51%) of the businesses perceive themselves as doing "very well" or "well" at taking an interest and getting involved in school and civic events.

### Related - Citizen Perception of Business Involvement

Maine citizens were asked if they agreed with the statement: "Businesses in my community take an interest and get involved in school and civic events." Fifty-three percent (53%) responded that they agreed with the statement, 16% disagreed, and 32% were indifferent. Citizen perception of involvement seems in keeping with actual involvement levels as reported by the businesses.

### Data Source

The 1995 Survey of Maine Businesses commissioned by the Maine Economic Growth Council. See Chapter 3.

# Number of Jobs that Pay a Liveable Wage

**Benchmark:** The number of jobs that currently pay a liveable wage (able to support a family of two) will increase to 90% by 2005 and eventually to 100%.

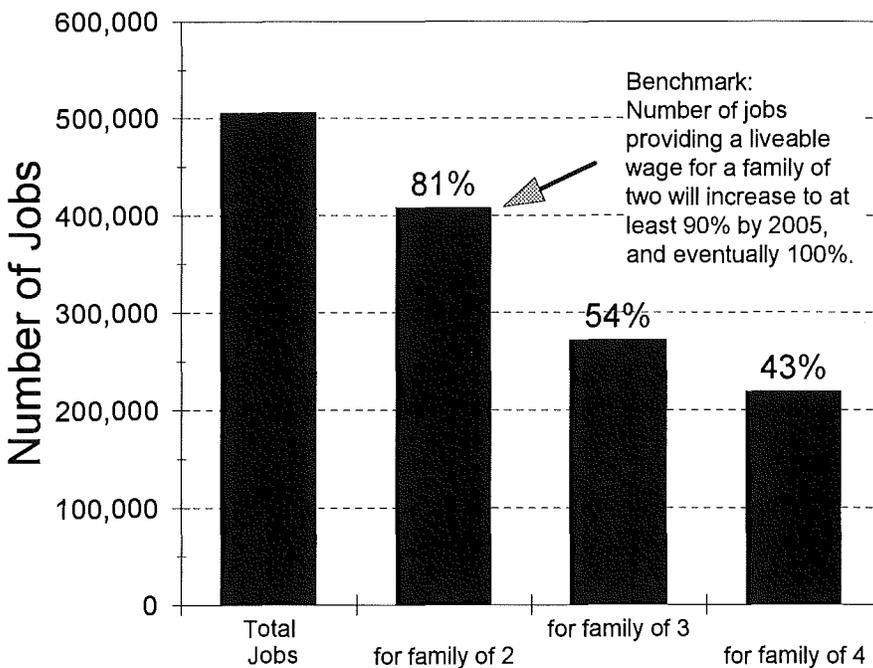
**Towards Goal G:** Maine workers will have ever increasing opportunities for employment that provides more jobs above liveable wages.

## Why This is a Performance Measure

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, perhaps such as housing, or they must depend on some type of public assistance. Each has a negative impact on the economy.

We must ensure that there are an adequate number of jobs for Maine workers, and that the jobs available pay wages that do not force people to supplement with public assistance. 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.

**Number of Liveable Wage Jobs in 1993  
for Maine Families of 2, 3, and 4**



## About This Performance Measure

This performance measure considers a liveable wage to be 85% above the poverty line wage for a family of two.

Several researchers in Maine and other places have calculated the average costs for food, housing, transportation, health care, child care, clothing, and personal care. From these calculations, they have estimated a "basic needs budget" and the corresponding "liveable wage," generally placed at about 85% above the poverty line. The poverty line wage is established for various family sizes annually by the U.S. Department of Labor and is roughly three times the cost of the U.S. Department of Agriculture's Economy Food Plan, based on the assumption that the average family spends about 1/3 of their income on food.

**Continued Next Page**

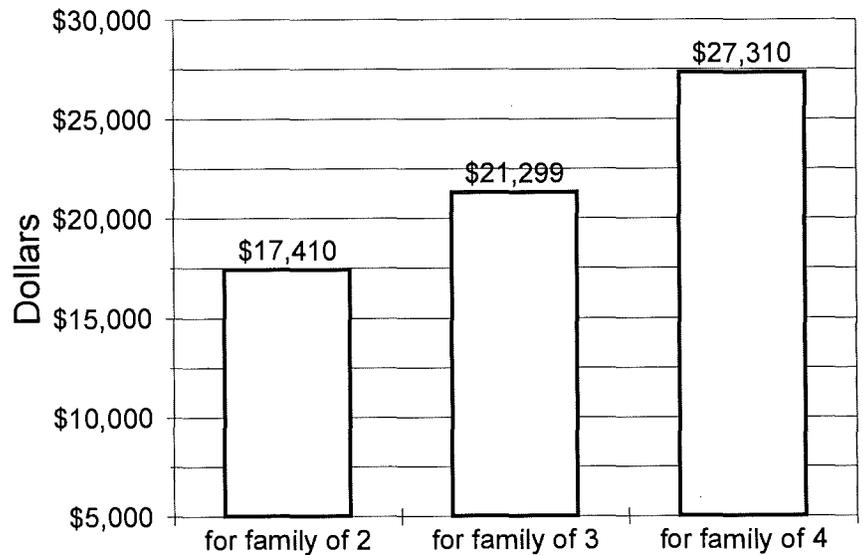
**Number of Jobs that Pay a Liveable Wage CONTINUED**

Typically, families earning a liveable wage are not in dire poverty but are just getting by. They likely have few or no assets, no funds available for education, and they are likely receiving some form of direct or indirect government assistance.

This performance measure considers the basic needs of a family of TWO for the following reason. Out of Maine's total population of 1,227,928 in 1990, roughly half of the people (590,000) had jobs. Generally then, each job in Maine supported roughly two people.

It is important to recognize that this liveable wage is being presented in terms of what is required PER YEAR. There may be instances where a brand new business is initially forced to pay below liveable wages due to start-up demands for capital.

**An Annual Liveable Wage in 1993**



**Inadequacies of the Liveable Wage Calculation - More Research Required**

The way in which the poverty line wage has been calculated by the government since 1965 is often criticized as being outdated and too low by today's standards. Among other flaws, it has been shown that today, food represents only 15% of the average family budget, not a third. Also, many more women are working today requiring child care expenses, not accounted for in the poverty line calculations.

For now, the Growth Council advocates using this liveable wage standard as a performance measure, but recognizes the need for more research to more accurately assess the basic wage-earning needs of the average Maine worker.

**Data Source**

1993 Survey of Occupational and Employment Statistics, Maine Department of Labor.

# Distribution of Women and Minorities Across Occupations

**Benchmark:** Employment among Women, Hispanics, African Americans, American Indians, and Asians will be more widely distributed across occupations by 2005.

**Towards Goal H:** Maine workers will have equal opportunity for employment, advancement, and an adequate standard of living.

## Why This is a Performance Measure

To maximize economic growth, it is imperative that we have the benefit of full participation of all classes of people in all occupations. Anything less, and we are short-changing the economy and perpetuating an unjust society.

## About This Performance Measure

Perhaps the most complex of all the performance measures, this one seeks to examine 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.

Although important, this is hard to measure. Please refer to the key for an explanation of how the table works. The last row captures the extent to which distribution has improved over the period 1980 to 1990. As women have become more prevalent in a wider variety of occupations, the distribution of men across occupations has decreased.

**Participation of Women & Minorities in Various Occupations**  
as a percentage of their population in the civilian labor force

### KEY

1. The last row of the table, % improvement of distribution, is the measure.  
A positive number refers to the extent that representation in this occupation is aligned with representation in the labor force as a whole.
2. 100% means that the group's representation in that occupation is equal to their representation in the labor force
3. Greater than 100% means the group is overrepresented in that occupation
4. Less than 100% means that the group is underrepresented in that occupation

Occupation	Female		Hispanic		African American		Native American		Asian		for comparison: Male	
	1980	1990	1980	1990	1980	1990	1980	1990	1980	1990	1980	1990
<i>Total Number Employed</i>	<i>211,383</i>	<i>283,974</i>	<i>1,866</i>	<i>2,855</i>	<i>1,175</i>	<i>1,859</i>	<i>1,701</i>	<i>2,715</i>	<i>1,197</i>	<i>3,244</i>	<i>286,018</i>	<i>328,590</i>
Executive, Admin, and Managerial	69.51%	95.77%	109.85%	88.04%	76.59%	97.10%	60.99%	68.27%	96.06%	86.76%	122.53%	103.66%
Professional Speciality	123.25%	121.95%	87.81%	120.60%	119.21%	92.40%	74.06%	55.71%	175.90%	105.67%	82.82%	81.03%
Technicians, related support	124.80%	111.80%	55.29%	98.52%	21.07%	165.07%	140.72%	72.99%	220.66%	122.18%	81.67%	89.81%
Sales	114.40%	110.09%	109.61%	92.10%	68.49%	91.79%	34.17%	97.53%	20.54%	58.35%	89.36%	91.28%
Admin support, include Clerical	182.23%	170.53%	74.67%	99.40%	67.32%	90.76%	98.13%	87.37%	52.75%	56.36%	39.23%	39.05%
Private household	215.60%	197.00%	16.06%	7.95%	178.51%	61.07%	61.65%	192.34%	0.00%	0.00%	14.56%	16.17%
Protective service	23.40%	25.25%	117.63%	128.07%	226.84%	220.77%	239.65%	195.14%	91.69%	43.71%	156.61%	164.60%
Service, excpt protective & househ.	155.39%	149.90%	172.72%	131.32%	177.04%	144.99%	160.08%	121.80%	181.99%	208.58%	59.06%	56.87%
Farming, forestry, fishing	27.23%	34.14%	62.70%	49.91%	43.56%	76.64%	212.06%	169.93%	4.07%	39.74%	153.78%	156.92%
Precision production, craft&repr	18.11%	20.49%	76.40%	78.02%	76.05%	76.72%	89.42%	104.25%	43.31%	76.60%	160.52%	168.71%
Machine operators, assem, inspe	113.10%	88.56%	117.80%	103.87%	103.26%	80.74%	88.00%	116.42%	183.64%	205.77%	90.32%	109.88%
Transport, material moving	14.38%	19.69%	86.41%	54.49%	110.12%	81.32%	92.45%	105.72%	18.29%	16.21%	163.28%	169.41%
Handlers, equip cleaners, laborers	63.21%	51.45%	105.48%	142.39%	151.85%	118.55%	120.03%	162.34%	84.52%	62.66%	127.19%	141.96%
Experience unemp not classified	148.70%	132.65%	12.23%	64.21%	155.42%	49.30%	268.40%	236.31%	228.84%	141.27%	64.01%	71.78%
Distribution across occupations as measured by standard deviation of the columns	0.624385	0.557461	0.406036	0.354651	0.565876	0.440296	0.687406	0.527434	0.795526	0.612752	0.461455	0.481769
% Improvement of distribution	10.72%		12.66%		22.19%		23.27%		22.98%		-4.40%	

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**Distribution of Women  
and Minorities Across Occupations**

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**CONTINUED**

**Maine Today:** Relative to the proportion of women in the labor force, over twice that proportion work in the private household sector, which includes cleaning and day care. Few women, relative to their numbers in the labor force, work in transportation, precision production, protective service, and fishing, farming and forestry. However, the distribution of women across occupations has increased somewhat from 1980 to 1990. Among Hispanics, distribution across occupations has also increased, and it has increased dramatically among African Americans, Native Americans and Asians.

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**Data Source**

Maine Dept. of Labor, Bureau of Employment Security, "Maine Occupational Statistics for Affirmative Action Planning," April 1985. Maine Department of Labor report based on the 1990 Equal Employment Opportunity File and selected Affirmative Action statistics from the 1990 Census.

# Employment Among People with Disabilities

**Benchmark:** Among people with disabilities, percent employed will be equal to percent employed among people with no disabilities, by the year 2005.

**Towards Goal H:** Maine citizens will have equal opportunity for employment, advancement, and an adequate standard of living.

## Why This is a Performance Measure

A strong economy yearns for 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.

**Maine Today:** Among people in the labor force with disabilities in 1990, 86% were actually employed whereas among people in the labor force with no disabilities, 94% were employed.

## About This Performance Measure

This performance measure looks at all those in the labor force and the extent to which people with disabilities are able to secure jobs compared to people without disabilities. It 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 someone who has 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 given up on trying to be a part of the labor force because of the difficulties they face in gaining meaningful and rewarding employment, even though they may be capable.

## Related - Other Maine and National Data

In Maine, 28% of the households have a person with a disability. Research shows that a person with a disability, compared to a peer without a disability, is likely to be poorer, less educated, and unemployed or underemployed. For instance, nearly 60% of adults with disabilities live in households with a total income of less than \$25,000 compared to 37% of people without disabilities. Similarly, high school graduation rates are considerably lower among people with disabilities.

A 1994 opinion poll of Maine people found that by considerable margins, Maine people want to give people with disabilities the opportunity to improve their lives. Most favored increased financial assistance in the form of loans, vouchers, and increased educational assistance.

### Data Source

U.S. Census, 1990. *The Maine Opportunity*, published in 1995 by the Maine Statewide Independent Living Council. *The Maine Opinion*, a survey of 300 Maine households with a statistical margin of error at +/- .057 at the 95% level of confidence.

# Women's Annual Earnings as a Percent of Men's Annual Earnings, by Occupation

**Benchmark:** The average annual earnings of women, by occupation, will be at least 65% of the average annual earnings of men, by occupation, by the year 2000.

**Towards Goal H:** Maine workers will have equal opportunity for employment, advancement, and an adequate standard of living.

## Why This is a Performance Measure

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 classes of people. Furthermore, such disparities are clear symptoms of an unjust society.

Looking at disparities BY OCCUPATION is important because it calls attention to the fact that women typically earn less than men in SIMILAR job classifications.

<b>Men's &amp; Women's Average Annual Earnings by Occupation, in Maine, in Constant 1992 Dollars</b>							
Occupation	1980			1990			1980 to 1990 Improvement in the Ratio of W to M
	Women's Average Annual Earnings	Men's Average Annual Earnings	Ratio: Women to Men	Women's Average Annual Earnings	Men's Average Annual Earnings	Ratio: Women to Men	
<b>Professional and Managerial Specialties</b>	<b>\$15,285</b>	<b>\$32,075</b>	<b>47.7%</b>	<b>21,635</b>	<b>41,904</b>	<b>51.6%</b>	<b>8.3%</b>
Exec, Admin, and Managerial	\$16,082	\$33,577	47.9%	23,043	42,312	54.5%	13.7%
Professional Specialties	\$14,968	\$31,305	47.8%	20,774	41,489	50.1%	4.7%
<b>Technical, Sales and Administrative</b>	<b>\$10,774</b>	<b>\$23,345</b>	<b>46.2%</b>	<b>14,013</b>	<b>28,600</b>	<b>49.0%</b>	<b>6.2%</b>
Technicians	\$13,206	\$23,907	55.2%	18,736	28,845	65.0%	17.6%
Sales Occupations	\$8,142	\$24,568	33.1%	11,766	31,535	37.3%	12.6%
Admin. Support Occupations	\$11,525	\$21,374	53.9%	14,408	23,287	61.9%	14.7%
<b>Services</b>	<b>\$6,898</b>	<b>\$13,417</b>	<b>51.4%</b>	<b>8,894</b>	<b>15,813</b>	<b>56.2%</b>	<b>9.4%</b>
Private Household	\$3,412	\$8,461	40.3%	5,399	10,067	53.6%	33.0%
Protective Services	\$7,592	\$19,254	39.4%	11,923	23,248	51.3%	30.1%
All Other Service Occupations	\$7,170	\$11,696	61.3%	8,988	13,486	66.6%	8.7%
<b>Farming, Forestry &amp; Fishing</b>	<b>\$6,628</b>	<b>\$14,752</b>	<b>44.9%</b>	<b>9,180</b>	<b>20,299</b>	<b>45.2%</b>	<b>0.7%</b>
<b>Precision Production, Craft &amp; Repair</b>	<b>\$11,726</b>	<b>\$21,542</b>	<b>54.4%</b>	<b>15,555</b>	<b>25,399</b>	<b>61.2%</b>	<b>12.5%</b>
<b>Operators, Fabricators &amp; Laborers</b>	<b>\$10,233</b>	<b>\$17,686</b>	<b>57.9%</b>	<b>12,247</b>	<b>21,063</b>	<b>58.1%</b>	<b>0.5%</b>
Machine Operators, Assemblers, etc.	\$10,693	\$18,634	57.4%	13,085	23,127	56.6%	-1.4%
Transportation & Material Moving	\$9,875	\$20,934	47.2%	12,679	23,813	53.2%	12.9%
Handlers, Cleaners, Helpers, Laborers	\$8,326	\$12,096	68.8%	9,908	15,004	66.0%	-4.1%
<b>Average of Occupations</b>	<b>\$10,257</b>	<b>\$20,470</b>	<b>50.4%</b>	<b>\$13,587</b>	<b>\$25,513</b>	<b>53.6%</b>	<b>6.3%</b>

Continued Next Page

**CONTINUED****Women's Annual Earnings as a Percent of Men's Annual Earnings, by Occupation****About This Performance Measure**

This performance measure considers the average annual earnings of women as a percent of the average annual earnings of men in various job classifications. For example, in 1990, female Operators, Fabricators, and Laborers made, on average, 58.1% of what men made. The performance measure actually rests on what women made as a percent of what men made averaged among the six major classes of occupations (in bold in the table on the previous page).

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 difference 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.

**Maine Today:** 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.

**Related - Number of Women Working and Number of Hours Worked**

The number of women who work in each occupation and the amount of hours that women work in each occupation has a strong influence on average annual earnings. Because of this, such data is presented in the table below.

This table shows that women make up only 9.3% of all those working in Precision Production, Craft & Repair but

account for 65% of all those working in Technical, Sales and Administrative. Furthermore, the table shows that, on average, women work fewer hours per week than men. One reason for this may be that women typically assume more family related responsibilities than do men, such as child care. Another reason may be that they have less incentive to work longer hours, given that they typically make less than men.

**By Occupation: Male & Female Representation  
and Ratio of Average Number of Hours Worked**

Occupation	1980 Female Representation in Occupation	1990 Female Representation in Occupation	1990 Ratio of Female to Male Hours Worked per Week
Professional and Managerial Specialties	42.9%	51.0%	86.0%
Technical, Sales and Administrative Services	64.8%	65.0%	83.0%
Farming, Forestry & Fishing	11.6%	15.3%	na
Precision Production, Craft & Repair	7.7%	9.3%	89.0%
Operators, Fabricators & Laborers	34.0%	27.8%	94.0%
<b>Average of Occupations</b>	<b>37.2%</b>	<b>38.7%</b>	<b>72.8%</b>

**Data Source**

U.S. Bureau of the Census, 1990 & 1980 Census of Population. Also from publication extracted by Dale Welch, from the 1990 Census Equal Employment Opportunity (EEO) Supplemental Tabulations File. Also, *Living on the Edge: Women Working and Providing for Families in the Maine Economy, 1979 - 1993*, by Stephanie Seguino, Ph.D., Margaret Chase Smith Center for Public Policy, 1995.

# Impact of Worker Gender, Race, and Ethnicity on Worker Growth and Success

**Benchmark:** The percentage of people who believe that their gender, race, or ethnicity do not impact their abilities to grow and succeed will substantially increase, eventually to 100%.

**Towards Goal H:** Maine workers will have equal opportunity for employment, advancement, and an adequate standard of living.

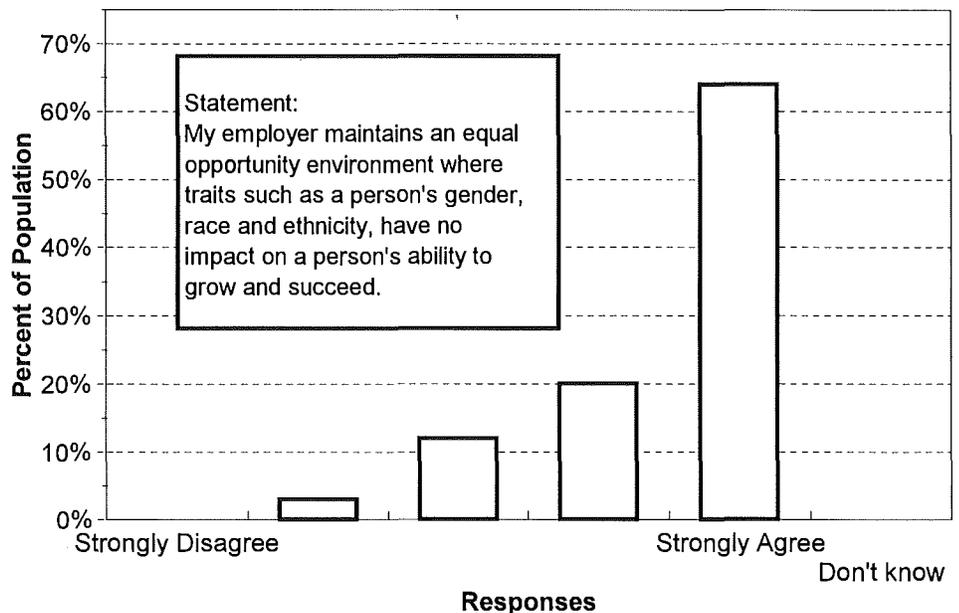
## Why This is a Performance Measure

Maine is a state where its citizens enjoy an environment where traits such as a person's gender, race and ethnicity have little or no impact on a person's ability to grow and succeed. This environment must afford equal opportunity for employment, advancement, and an adequate standard of living.

### About This Performance Measure

Maine citizens were asked in the 1995 *Survey of Maine Citizens*, the extent to which they were discriminated at work due to gender, race, or ethnicity.

### Citizen Opinion of Equal Opportunity in the Workplace



**Maine Today:** Better than four out of five respondents (84%) in the survey of Maine citizens agreed or strongly agreed that their employer maintains an equal opportunity environment. There are no significant variations by regions, educational attainment, age, income, and gender.

### Data Source

The 1995 *Survey of Maine Citizens* commissioned by the Maine Economic Growth Council. See Chapter 3.

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# Efficient Government

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Government is a key part of the state's economic future; through its decisions about what and how to tax, which services to provide, and how to regulate private activity. Debates about the roles and responsibilities of government continue, but whatever government does it must seek to do so at the lowest cost possible. This section examines how well government is doing at meeting needs defined by Maine citizens and businesses, compares our tax system with neighbors, and sets some baselines against which to measure future government performance.

In an effort to assess citizen and business satisfaction with state government, the measurements look at citizen opinion of the value and performance of state services in various areas and the average approval times for state permits. In the areas of taxation, measurements include fiscal stability and balanced revenues, revenue elasticity, and tax burdens. Other measures of government efficiency and effectiveness will look at tools such as inter-governmental agreements and use of performance budgeting.

Other initiatives which have overlapping concerns with regard to Efficient Government include the Commission on Performance Budgeting, Charting Maine's Economic Future, and the state's economic development strategy.

# Business Experience with Obtaining State Permits

**Benchmark:** Percentage of companies experiencing no difficulty with state permits will substantially increase.

**Towards Goal I:** 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.

## Why This is a Performance Measure

Difficulty with state permitting is often cited as a deterrent to economic growth. Consequently, we should track business satisfaction with state permitting and ensure that state permitting does not unreasonably deter economic growth.

## About This Performance Measure

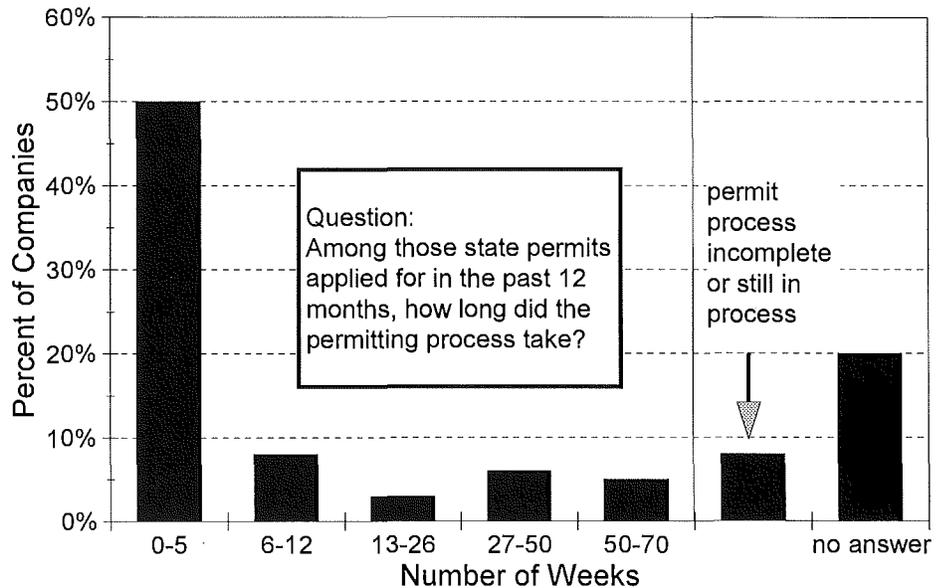
Maine businesses were asked if they had experienced any difficulty in obtaining development, environmental, land use or similar state permits in the past 12 months.

**Maine Today:** Sixty percent (60%) of businesses surveyed reported that they experienced no difficulty in obtaining state permits in the past 12 months. Of all state agencies, the Department of Environmental Protection reviews the most permit applications, approximately 44%.

### Related - Permit Approval Times

The overall average approval time for all state permits appears to be about 10 weeks, but there is enormous variation. Fifty percent (50%) of permits are granted within 5 weeks.

### Average Approval Times for State Permits - 1995



### Data Source

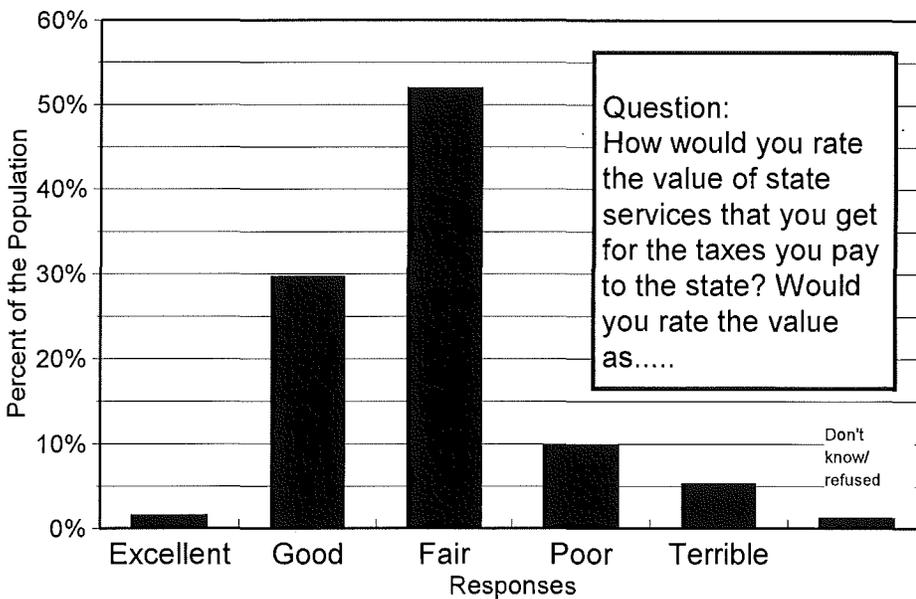
The 1995 Survey of Maine Businesses commissioned by the Maine Economic Growth Council. See Chapter 3.

# Citizen Satisfaction with Government Costs and Services

**Benchmark:** The number of Maine people who regard the value of state services as *good* or *excellent* will increase substantially.

**Towards Goal I:** 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.

**Citizen Opinion of Value of State Services**



Question:  
How would you rate the value of state services that you get for the taxes you pay to the state? Would you rate the value as.....

**About This Performance Measure**

Maine citizens were asked to rate the value of state services for the taxes that they pay. Although not part of the actual performance measure, it is interesting to note that among those who have been in Maine for ten years or less, there is a more favorable perception of the value of state services.

**Why This is a Performance Measure**

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

**Maine Today:** Thirty-two percent (32%) of Maine people rate the value of state services for taxes paid as *good* or *excellent*.

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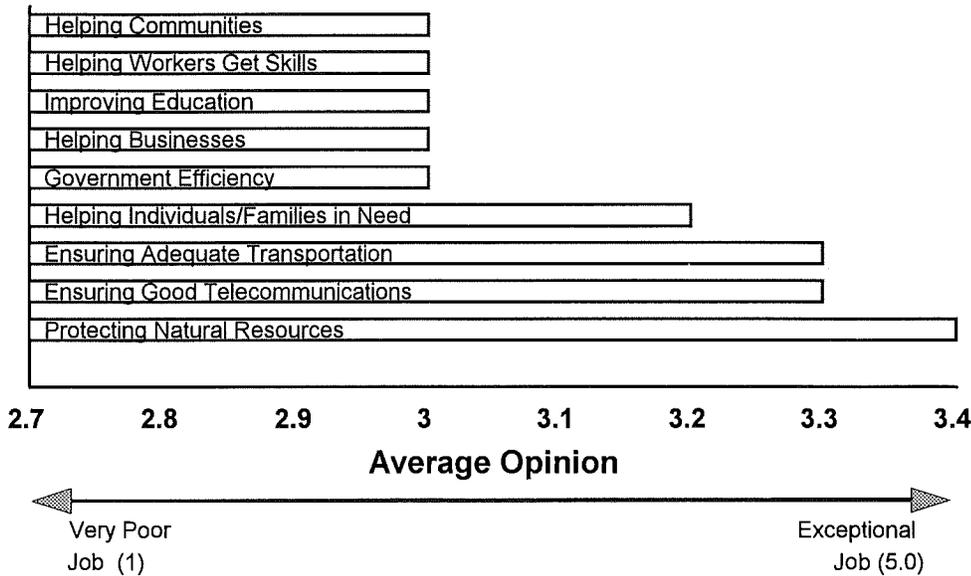
**Citizen Satisfaction with Government Costs and Services**

**CONTINUED**

**Related - Citizen Opinion of State Performance in Various Areas**

Citizens think that state government is doing best at protecting natural resources. Respondents were asked the following: "Now I'd like to ask you some questions about the performance of the state on some issues. On a scale of 1 to 5 where 5 means that you think the state is doing an exceptional job, and 1 means that you think the state is doing a very poor job, how well do you think the state is doing at..." followed by the list presented in the graph below.

**Citizen Opinion of State Performance in Various Areas**



**Data Source**

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3.

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# Number of Inter-Government Agreements

**Benchmark:** Not yet established.

**Towards Goal I:** 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.

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## Why This is a Performance Measure

There are economic and societal gains when governments work in collaboration with each other. There are economies of scale in purchasing and maintaining equipment. Cooperative planning results in fewer disputes and a more stable planning and economic development climate.

## Measure Being Developed

It is anticipated that a survey will be developed and mailed to the 50 largest municipalities in Maine, by population, and the municipal officials will be asked to state the number of formalized written agreements that they have with other municipalities and/or with regional planning commissions. Once this data is gathered, a benchmark will be established. It is anticipated that the first survey will be conducted in summer, 1996.

# Use of Performance-Based Budgeting

**Benchmark:** Maine state government and some of Maine's municipalities will have adopted a system of performance-based budgeting by 1997.

**Towards Goal I:** 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.

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## The Nature of Performance-Based Budgeting

Performance-based budgeting is different from traditional line-item budgeting, and from zero-based budgeting, because it requires that the proposed budget identify expected outcomes. It is a tool for targeting the most important problems and for creating the means by which we can measure progress towards solving those problems.

Performance-based budgeting consists of the following three steps: (1) strategic planning, (2) budget preparation including identification of desired outcomes, and (3) monitoring progress towards the desired outcomes, using benchmarks. Performance-based budgets generally apply to programs, not departments or bureaus, regardless of whether or not the program cuts across more than one department or is wholly contained within a department. Performance-based budgets are concerned with outcomes (the actual impacts on society) rather than outputs (the products of the program).

## The Importance of Performance-Based Budgeting to a Growth Economy

Performance-based budgeting is the best way to ensure efficient and effective use of scarce government resources. It allows us to know precisely the outcomes we are trying to accomplish and targets our spending accordingly, resulting in effective government at minimal cost.

### State Level

The 117th Legislature established the *Commission on Performance Budgeting* to provide guidance and advice to state government as it moves towards performance-based budgeting. The governor has made performance-based budgeting a priority. Part of this benchmark will be achieved when performance-based budgeting is adopted by the state government as the standard way of doing business.

### Municipal Level

There is no data on the number of Maine municipalities that use performance-based budgeting, but it is likely very few do. A survey will be developed, perhaps in conjunction with the Maine Municipal Association, asking towns the extent to which they employ performance-based budgeting or some other means to relate municipal expenditures to outcomes. When a baseline of data is established, the benchmark will be refined.

# Fiscal Stability and Balanced Revenue

**Benchmark:** Maine will rank between 20th and 25th on the CfED Fiscal Stability and Balanced Revenue Index by 2005.

**Towards Goal J:** 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.

## About This Performance Measure

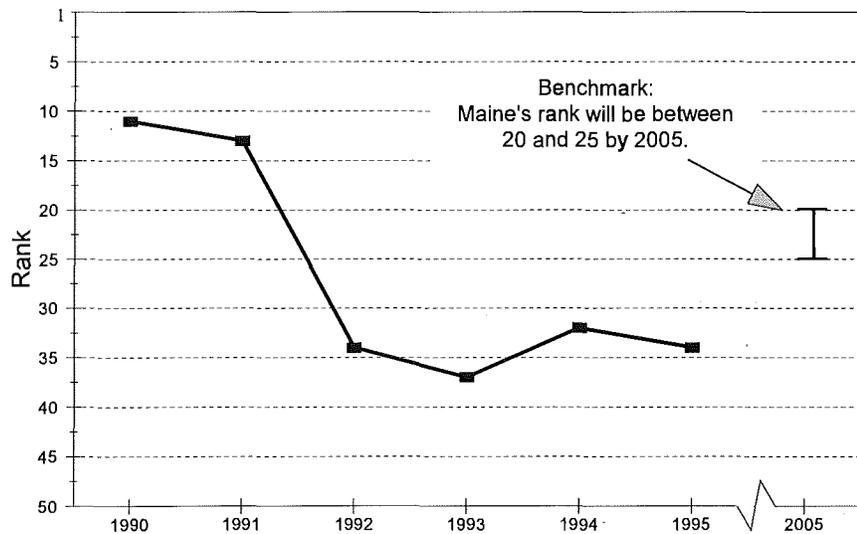
The Fiscal Stability and Balanced Revenue Index examines balance among the four major taxes (corporate, income, property, sales) and fiscal stability by the size of the state's rainy day fund, whether it allows net operating carry backs (in the corporate income tax), and the breadth of its sales tax. States are ranked nationally via this index.

This index, and several others concerned with the health of state economies, is developed annually by CfED, the Corporation for Enterprise Development, in Washington, D.C.

### Why This is a Performance Measure

This index is important for businesses and others who are concerned with the predictability of future taxes and stability of the state economy. Combined with the other performance measures in this section, it is a very good indicator of the quality of our government policies and the stability of the Maine business climate.

Fiscal Stability & Balanced Revenue  
Maine's Rank Nationally



**Maine Today:** Maine currently ranks 34th in the nation using this index, having dropped from 12th in the nation in 1990 (a ranking closer to 1 is better). By way of comparison with our neighbors, Massachusetts, Connecticut, and Rhode Island are ranked 20th, 21st, and 22nd respectively. Vermont and New Hampshire have been consistently ranked lower than Maine.

### Data Source

*The 1995 Development Report Card for the States: Economic Benchmarks for State & Corporate Decision-Makers*, published by the Corporation for Enterprise Development, Washington, D.C..

# Revenue Elasticity

**Benchmark:** Revenue elasticity in Maine will be moderate, staying between 1.0 and 1.2.

**Towards Goal J:** 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.

## About This

### Performance Measure

Revenue elasticity is a measure of how per capita income affects total state revenues. As per capita income goes up, state revenues go up because people pay more in income taxes and they buy more goods and property, which are also taxed.

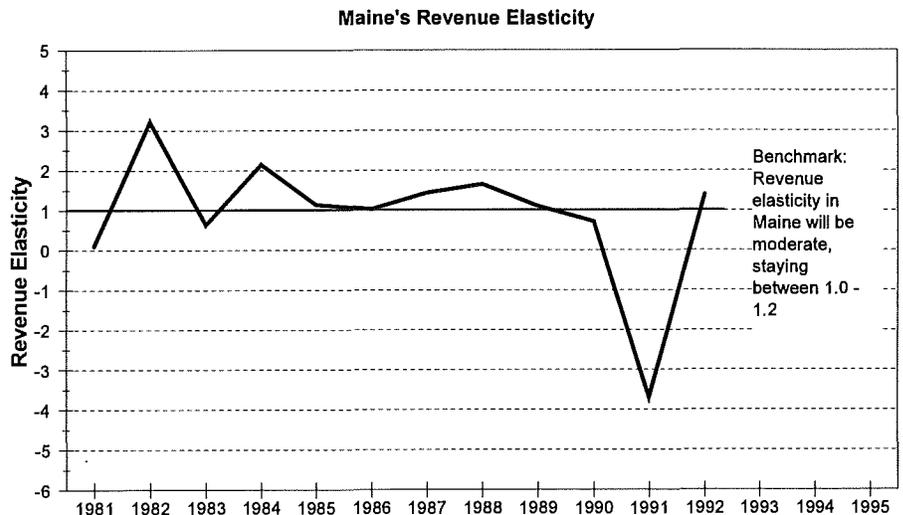
Here's an example of how revenue elasticity is calculated: If per capita income increases by 5% and state revenues increase by 5%, the revenue elasticity equals 1.0. If state revenues fluctuate more dramatically than per capita income, say revenues go up 10% where per capita income has increased by only 8%, revenue elasticity is greater than 1.

Economists argue that revenue elasticity between 1.0 and 1.2 allows the government to save funds in times of economic growth to be used in times of economic decline.

### Why This is a Performance Measure

Revenue elasticity is an important measure of the state's economic and fiscal stability. Moderate revenue elasticity provides businesses and citizens with an important degree of predictability required for making sound financial investment decisions.

**Maine Today:** Maine's revenue elasticity is typically greater than 1.0 due to our progressive income tax and our highly sensitive and narrowly based sales tax.



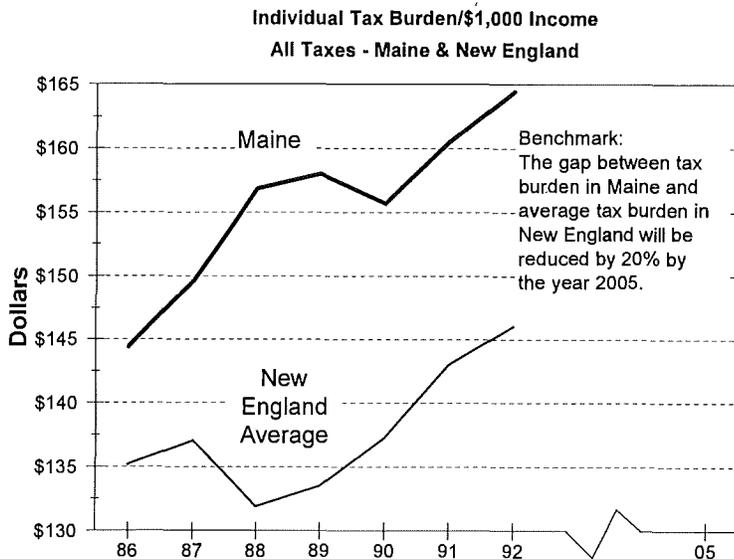
### Data Source

Compiled from data provided by the Maine State Planning Office, the Census of Governments, and the Advisory Council on Intergovernmental Relations.

# 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 by 20% by 2005.

**Towards Goal H:** 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.



## About This Performance Measure

This measure looks at how much Maine people and corporations pay in taxes compared to how much income is earned. 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) and dividing that by the total amount of income earned by individuals. The same calculation is made for Maine and for New England as a whole.

Some of the reasons for Maine's relatively high tax

burden are due to factors such as the rural nature of our state, the climate, and the relatively low density of people in Maine. On the other hand, some of the reasons have to do with our tax policies. For instance, Maine's relatively high income tax rate (one and a half times the national average), coupled with the fact that it is highly progressive has a bearing on Maine's relatively high tax burden as measured in this way.

## Why This is a Performance Measure

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 paid to income earned which seems more reasonable for Maine where our per capita income is low relative to other states.

**Maine Today:** In 1992, for every \$1,000 of income generated in Maine, \$164.50 was paid to state and local governments in the form of taxes. For New England as a whole, the amount paid in taxes for every \$1,000 of income was \$146.00. By this measure, Maine has the second highest tax burden in New England (second to Vermont) and the 14th highest of all 50 states.

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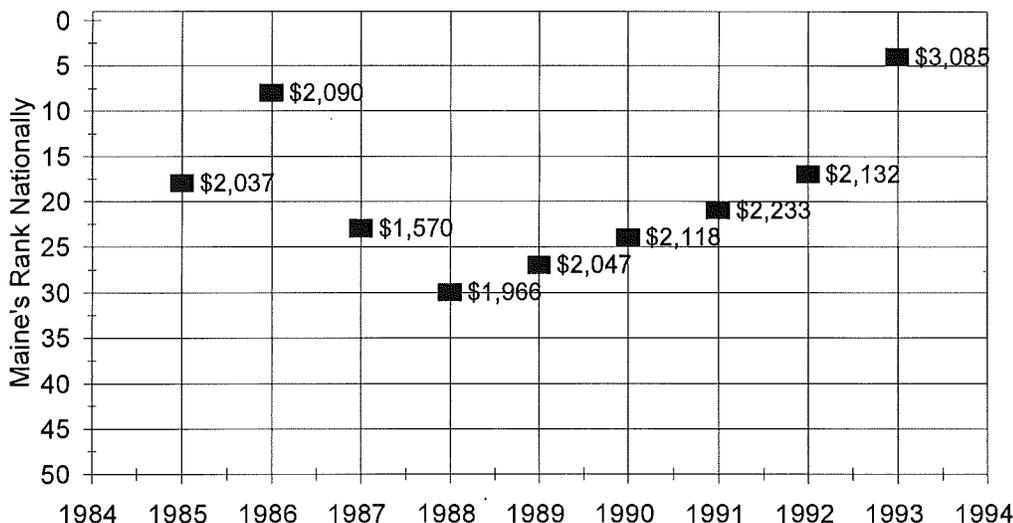
**Related - Estimated Tax Burden on a Family of Four Earning \$25,000/Year**

It is useful to examine the estimated burden of taxes on families of various sizes and of various income levels. Of particular concern is the tax burden faced by the average Maine family. Although the performance measure described on the previous page places Maine 17th in the nation (higher rank corresponding to higher tax burden), Maine's rank regarding burden on the average family is even higher; 5th in 1993.

This estimate is determined by examining the income, property, sales, and automobile taxes paid by a Maine family of four earning \$25,000 (although this does not characterize perfectly the average Maine family, it is the closest approximation for which data is available). In 1993, such a family paid an estimated \$3,085 in income, property, sales, and automobile taxes.

The graph shows Maine's national rank with regard to this measure, from 1985 to 1994. Tax burden in Maine as measured in this way has been steadily rising relative to other states since 1988.

**Maine's Rank Nationally  
of Estimated Burden of Major Taxes  
on a Family of 4 Earning \$25,000/Year**



**Data Source**

*Significant Features of Fiscal Federalism, Volume 2, Revenues and Expenditures, 1994*, published by the Advisory Commission on Intergovernmental Relations, Washington, D.C., also, *Tax Rates and Tax Burdens: A Nationwide Comparison, 1985-1993*, published by the Washington, D.C. Department of Revenue.

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# State-of-the-Art Infrastructure

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Air, road, rail, and water transportation, combined with advanced telecommunications are the foundations upon which the economy depends. Energy supplies and prices are another part of this foundation. This section examines recent trends in the condition and use of Maine's transportation infrastructure, the growth in the use of the "information superhighway," and the state's relative position in energy costs.

The condition of the interstate and national highway system in Maine is measured using a composite pavement condition rating. Other transportation modes are measured by looking at utilization rates. The information superhighway is measured by the extent to which business uses various modalities of advanced information technologies.

The state's energy infrastructure is measured against the relative cost of energy sources in Maine in comparison to the nation, Maine energy mix, and the extent to which business seeks to be more energy efficient by conducting energy audits.

Other initiatives which have overlapping concerns with regard to State-of-the-Art Infrastructure include Charting Maine's Economic Future, The Maine Project, the State's Economic Development Strategy, and the Commission on Performance Budgeting.



# Condition of Roads

**Benchmark:** The pavement condition of interstate and national highway system roads in Maine will remain, on average, above a pavement condition rating of 3.4.

**Towards Goal K:** Maine's transportation and telecommunications infrastructure will support economic growth by being modern and continually improved.

## About This Performance Measure

Pavement condition rating is performed by visually surveying the roads and assigning values as follows:

- 5 Absolute Perfection - new or nearly new
- 4 Good - very few signs of deterioration
- 3 Fair - visible defects including moderate cracking
- 2 Poor - advanced cracking and severe distortion
- 1 Poor - extremely deteriorated - severe cracking
- 0 Out of service

The interstate highway system consists of I-95, I-295, I-395, I-495, and the Maine Turnpike. The national highway system includes major roads in the state such as Routes 1, 3, 201, and 302, among others. A large percentage of Maine's commerce travels these two systems of roads. The graph reflects the aggregate condition rating of all these roads weighted according to how much they are used.

### Why This is a Performance Measure

Most movement of goods and commerce in Maine travels by road. Highly functional roads are a necessity for economic growth. *Condition of the Interstate and National Highway System* roads is used because these roads are used the most by business and industry.

Condition of Interstate & National Highway Systems in Maine



**Maine Today** In 1994, the pavement condition rating of national highway system and interstate highway system roads in Maine was 3.47, down from the 1992 rating but higher than typical ratings of the past ten years.

Continued Next Page

**CONTINUED****Condition of Roads****Number of Miles and Miles Traveled - Related**

Not surprisingly, the Maine Turnpike, interstate highway system, and the national highway system roads carry a significant proportion of Maine long distance travel and provide economic linkages for the state, even though there are many more miles of urban roads and secondary highways.

<b>Maine Roads</b>			
<b>Number of Miles and Miles Traveled</b>			
	<b>Number of Miles</b>	<b>Annual Vehicle Miles in millions</b>	<b>Percent of Travel</b>
The Maine Turnpike	105	815	6.6%
Interstate Highway System	260	1,432	11.6%
National Highway System	903	2,248	18.3%
STP* & Collector Roads	7,315	6,490	52.7%
Local & Residential Roads	13,562	1,332	10.8%
<b>Total</b>	<b>22,145</b>	<b>9,728</b>	<b>100%</b>

\* STP: Surface Transportation System - includes most urban roads and secondary highways

**Data Source**

*Maine's Highway Needs, 1996/97*, published by the Maine Department of Transportation.

# Use of Roads Relative to Other Transport Modes

**Benchmark:** The aggregate use of air, rail, and marine transport systems will increase proportionally faster than the use of roads, between now and 2005.

**Towards Goal K:** Maine's transportation and telecommunications infrastructure will support economic growth by being modern and continually improved.

## Why This is a Performance Measure

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 transportation 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.

## About This Performance Measure

This measure looks at the extent to which road use has changed over a four year period relative to the change in use of other modes of transportation. It uses an index, shown in the last column of the table, where 100 equals no change, greater than 100 means an increase in use, and less than 100 means a decrease in use. Change in use in air cargo, air passengers, rail cargo, and marine cargo is averaged to arrive at the "change in use" figure for other modes. For air cargo and rail cargo, data was not available for the years 1990 and 1994 so alternative years were used, as shown in the table.

**Maine Today:** Road use increased by almost 6% from 1990 to 1994, whereas use of other modes of transportation, in the aggregate, decreased by approximately 1% over the same period of time.

Change in Use - Roads Relative to Other Modes of Transport					
Modes	Unit	Year		% Change	Change in Use Index
		1990	1994		
<b>Roads</b>					<b>105.93</b>
Road Cargo and People	vehicles miles	2,144,328,937	2,271,392,937	5.93%	
<b>Other Modes</b>					<b>99.15</b>
Air Cargo ('92-'93)	revenue tons	6,448.60	5,828.57	-9.61%	
Air Passenger	passengers	2,289,306	1,846,775	-19.33%	
Rail Cargo ('91-'93)	short tons	6,381,632	6,509,936	2.01%	
Marine Cargo	short tons	14,564,907	17,994,353	23.55%	

### Data Source

*Maine's Highway Needs, 1996/97*, published by the Maine Department of Transportation; also, *U.S. Coast Guard/Port Operators Reports to MDOT*; also, MDOT, Air Transportation Division, *Air Cargo Enplanements and Deplanements Stats. 1992 & 1993*; also, MDOT, Air Transportation Division, *Airline Passenger Enplanement and Deplanement Stats. 1980, 1984, & 1990-1994*; also, *Railroads and States*, Economics and Finance Dept., Assoc. of American Railroads, 1994.

# Business Use of Advanced Information Technology

**Benchmark:** Maine businesses will continue to substantially increase their use of advanced telecommunications, in particular, the Internet.

**Towards Goal K:** Maine's transportation and telecommunications infrastructure will support economic growth by being modern and continually improved.

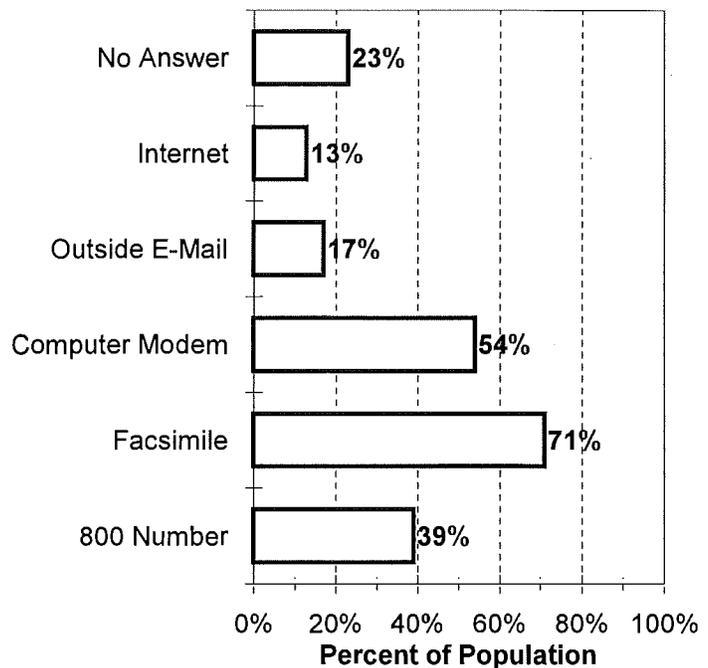
## Why This is a Performance Measure

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 market place, linked by advanced telecommunications.

It is via the telephone, the Internet, cable television, broad band telecommunications cable, fiber-optic cable and cellular radio that Maine companies and citizens do business today. Although these are all important, use of the Internet is thought to be vital to economic growth given the depth of opportunity it presents at relatively low cost.

Response by businesses to a survey question regarding use of telecommunications has been chosen as a performance measure mainly due to lack of data regarding actual infrastructure in place. Data about access to infrastructure is even more difficult to obtain. This is because there are so many different types of infrastructure and an increasingly complex web of providers.

## Business Survey Use of Telecommunications



**Maine Today:** Thirteen percent (13%) of Maine businesses use the Internet. Seventy-one percent (71%) use fax machines, but only 54% use computer modems, a figure we can expect to rise.

## Related - Business Satisfaction with the Quality of Telecommunications

Although not graphed, businesses were asked how satisfied they were with the quality of telecommunications services available to their companies. Thirty-nine percent (39%) responded that they were very satisfied; 44% said somewhat satisfied; and 10% said they were either somewhat dissatisfied or very dissatisfied.

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# Business Use of Advanced Information Technology

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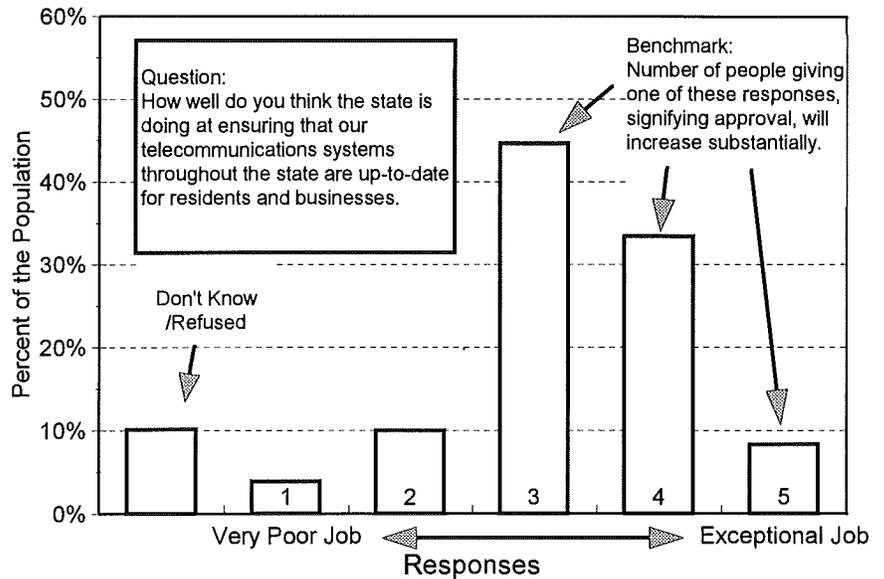
## Related - Citizen Opinion of State Performance Regarding Telecommunications

The 1995 Survey of Maine Citizens asked how well Maine citizens thought the state was doing to ensure that Maine's telecommunications systems are up-to-date. On a scale of 1-5 where 1 is "very poor job" and 5 is "exceptional job," 86% responded 3, 4, or 5, signifying approval.

### The Dynamic Nature of This Performance Measure

Use of advanced information technology will be dramatically affected by some recent policy decisions and capital investment programs in Maine. For example, Internet connections are to be placed in 1200 schools and libraries; and television studios are to be placed in all Maine high schools for distance learning. Additional policy decisions regarding telecommunications are likely. Accordingly, the Growth Council will refine this performance measure and benchmark as appropriate.

Citizen Opinion of State Performance Ensuring Up-to-Date Telecommunications



### The Need to Continue Data Collection

Recognizing the importance of collecting hard data on telecommunications capacity and availability, rather than making such assessments via the opinions of businesses and citizens, the Growth Council will continue to try and collect data such as the following:

- Proportion of the population and towns with access to fiber-optic cable
- Amount of area covered by wireless telecommunications services
- Telecommunications rates compared with other states
- Public school access to broadband services and the Internet
- Health care and social service agency access to telecommunications networks

### Data Source

The 1995 Survey of Maine Citizens commissioned by the Maine Economic Growth Council. See Chapter 3, also the 1995 Survey of Maine Businesses commissioned by the Maine Economic Growth Council. See Chapter 3.

# Cost of Energy

**Benchmark:** The cost of energy in Maine will be less than 1.8 times the cost of energy for the nation as a whole, by the year 2005.

**Towards Goal L:** Energy supplies in Maine will be stable and predictable, while energy prices remain competitive with national and regional levels.

## Why This is a Performance Measure

Cost of energy is a fundamental cost of doing business, and in Maine, energy is more expensive than in most places around the country.

## About This Performance Measure

The tables on the following page present an index which looks how much we pay for energy in Maine relative to how much the nation as a whole pays for energy. The index is weighted according to how much of each energy source we use relative to the U.S. mix of use.

For example, looking at the 1992 table, although the price of natural gas is much higher in Maine than in the US as a whole (\$5.43 compared to \$3.89), we don't use natural gas nearly as much as the US as a whole. It only makes up 1.2% of our energy mix where as nationally, it makes up 30.47%. Consequently, the "weighted cost" of natural gas in Maine (this cost is simply a figment of this index) is considerably lower than the US "weighted cost" of natural gas.

Following are definitions of some of the terminology used in the table:

1. BTU's stands for British Thermal Units, a uniform measure of energy output.
2. The "End User Electricity" category includes sources of energy that go into the production of electricity, such as nuclear, hydro, biomass, coal, and oil.
3. Distillate Fuel: Produced from conventional distillation operations. Includes products such as No. 1, No. 2 oils, and No. 4 diesel fuels.
4. LPG stands for Liquefied Petroleum Gases and includes ethane, ethylene, propane, normal butane, butylene, among others.
5. Residual Fuel: The heavier oils that remain after the distillate fuel oils are distilled away.

**Maine Today:** Using the index in the table, energy in Maine cost 2.2 times as much as for the US as a whole in 1992, up from 1.72 times as much in 1980; a relative increase of about 28%.



Continued Next Page

**Cost of Energy****CONTINUED**

<b>Cost of Energy from Major Sources in Maine Relative to U.S. 1980 and 1992</b>						
<b>1980</b>						
	<b>Cost per million BTU's</b>		<b>Proportion of Use</b>		<b>Weighted Cost per million BTU's</b>	
	U.S.	Maine	U.S.	Maine	U.S.	Maine
Coal	\$1.47	\$1.89	6.19%	0.91%	\$0.09	\$0.02
Natural Gas	\$2.86	\$5.03	30.91%	0.71%	\$0.88	\$0.04
Petroleum						
Distillate	\$6.70	\$6.83	11.16%	16.07%	\$0.75	\$1.10
Kerosene	\$6.97	\$7.82	0.47%	0.87%	\$0.03	\$0.07
LPG	\$5.64	\$7.86	3.71%	0.98%	\$0.21	\$0.08
Motor Gasoline	\$9.84	\$9.69	23.71%	21.83%	\$2.33	\$2.12
Residual Fuel	\$3.88	\$4.10	6.25%	16.03%	\$0.24	\$0.66
End User Electricity	\$13.95	\$16.30	13.40%	42.60%	\$1.87	\$6.94
COMPOSITE COST					\$6.41	\$11.01
<b>1980 COST RATIO: MAINE TO U.S.</b>					<b>1.72 : 1</b>	
<b>1992</b>						
	<b>Cost per million BTU's</b>		<b>Proportion of Use</b>		<b>Weighted Cost per million BTU's</b>	
	U.S.	Maine	U.S.	Maine	U.S.	Maine
Coal	\$1.45	\$2.67	4.67%	5.00%	\$0.07	\$0.13
Natural Gas	\$3.89	\$5.43	30.47%	1.20%	\$1.19	\$0.07
Petroleum						
Distillate	\$7.08	\$6.98	10.74%	4.96%	\$0.76	\$0.35
Kerosene	\$7.25	\$7.65	0.19%	0.72%	\$0.01	\$0.06
LPG	\$5.95	\$11.39	4.10%	1.50%	\$0.24	\$0.17
Motor Gasoline	\$8.96	\$9.63	24.95%	17.26%	\$2.24	\$1.66
Residual Fuel	\$2.49	\$2.42	2.93%	14.12%	\$0.07	\$0.34
End User Electricity	\$20.06	\$26.52	16.60%	55.24%	\$3.33	\$14.65
COMPOSITE COST					\$7.91	\$17.42
<b>1992 COST RATIO: MAINE TO U.S.</b>					<b>2.20 : 1</b>	

**Data Source**

U.S. Dept. of Energy, Energy Information Administration, *State Energy Price & Expenditure Report 1992*, December 1994, p. 21, 81, 87, & 111; also, *Final Report of the Commission on Comprehensive Energy Planning*, May, 1992, Maine State Planning Office.

# Percentage of Oil in Maine's Mix of Energy Use

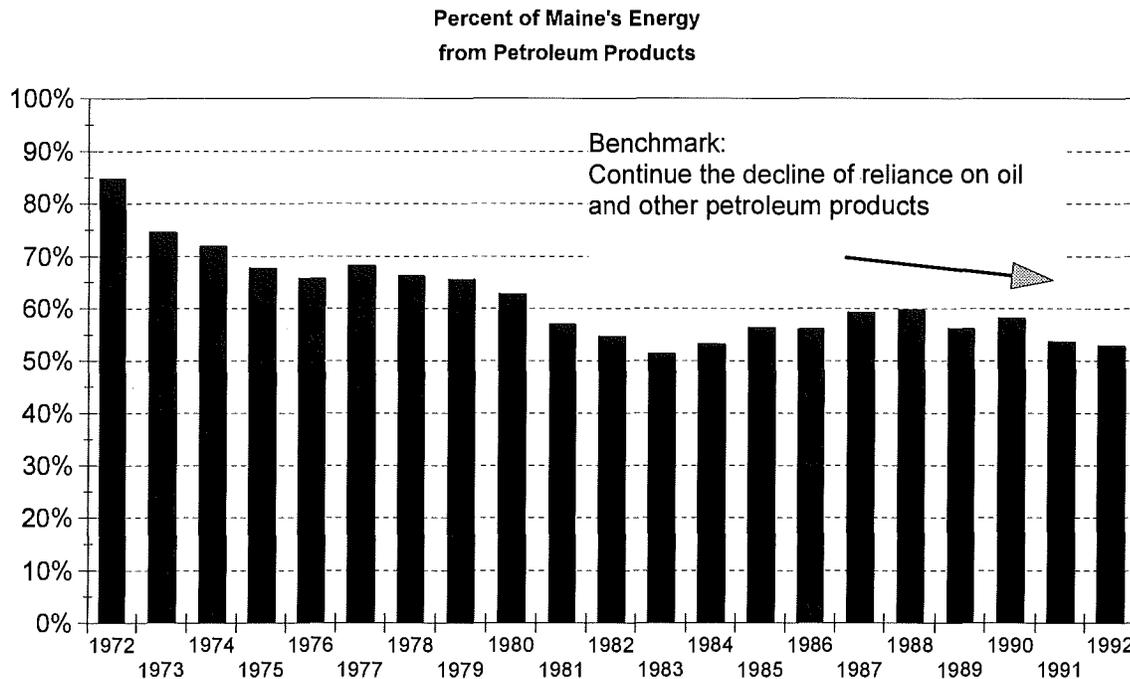
**Benchmark:** Oil (petroleum products) will account for less than 45% of Maine's total energy consumption by the year 2005.

**Towards Goal L:** Energy supplies in Maine will be stable and predictable, while energy prices remain competitive with national and regional levels.

## About This Performance Measure

Of the 430 trillion BTU's (British Thermal Units) of energy consumed by Maine citizens and businesses in 1992, this measure looks at the percentage of energy that comes from oil (petroleum products).

Relative to the nation as a whole, Maine is more reliant on oil and on renewables, such as wood and hydro. This is because coal and natural gas are used much more widely throughout the nation than they are in Maine.



## Why This is a Performance Measure

The price of oil (petroleum products) is largely out of our control, and it has proven to be a volatile commodity. When there are oil price shocks, the entire Maine economy is affected. With the goal of a stable and predictable energy supply, Maine should decrease its reliance on oil.

**Maine Today:** Reliance on oil has dropped in Maine from 85% of the energy mix in 1972 to 53% of the mix in 1992. In its place, we have increased the use of wood (biomass), doubled the use of natural gas and coal, and since Maine Yankee has come on line, nuclear has accounted for about 15% of total energy consumed.

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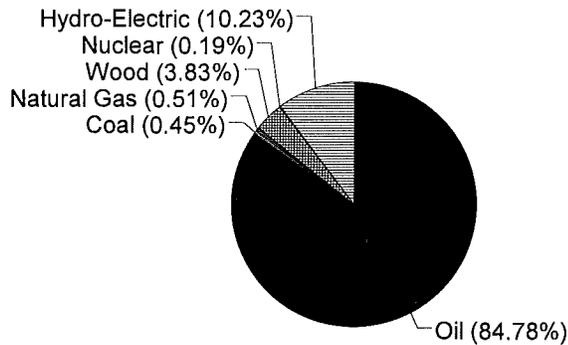
# Percentage of Oil in Maine's Mix of Energy Use

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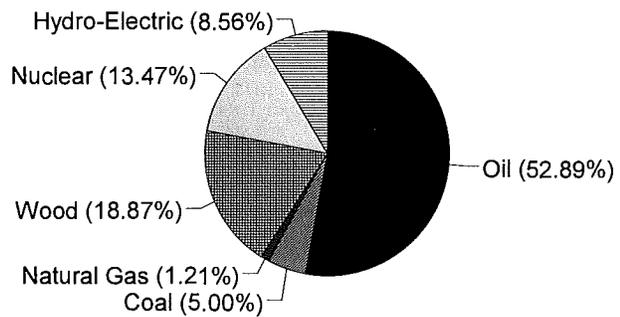
## Related - Maine's Energy Mix, 1972 and 1992

These pie charts show that the decreased reliance on oil has been made possible by increased reliance on nuclear, wood, coal, and natural gas.

**Maine's Energy Mix  
1972**



**Maine's Energy Mix  
1992**



**Data Source**

*Final Report of the Maine Commission on Comprehensive Energy Planning, May 1992, Maine State Planning Office.*

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# Business Efforts to Improve Energy Efficiency

**Benchmark:** The percentage of businesses conducting energy audits will substantially increase.

**Towards Goal L:** Energy supplies in Maine will be stable and predictable, while energy prices remain competitive with national and regional levels.

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## Why This is a Performance Measure

The most effective way to increase the supply of energy is to decrease demand through increased energy efficiency. Decreased reliance resulting from increased efficiency is the best way to increase supply stability. Number of audits being conducted is a measure of business efforts to reduce their energy demands.

## About This Performance Measure

Maine businesses were asked, via the *1995 Survey of Maine Businesses*, if they have ever conducted an energy audit.

**Maine Today:** Presently, 29% of Maine businesses have conducted an energy audit.

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### Data Source

The *1995 Survey of Maine Businesses* commissioned by the Maine Economic Growth Council. See Chapter 3.



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# Healthy Natural Resources

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Maine's forests, waters, and lands remain the foundation for much of the economy, as they have been for nearly four centuries. Maine's future prosperity depends greatly on the recognition that a healthy economy and a healthy environment go hand in hand. This section examines the condition of some of the key industries in Maine that rely on natural resources and on the resource base itself.

To measure the health of natural resources, measurements look at water bodies suitable for fishing and swimming; land will be measured in terms of land in conservation intended for public use, and the diverse value of forestry resources (although this particular measure awaits more data from a 12-year inventory study which is due out within a year). A benchmark will be developed shortly to assess state resources indexed via a Geographic Information System.

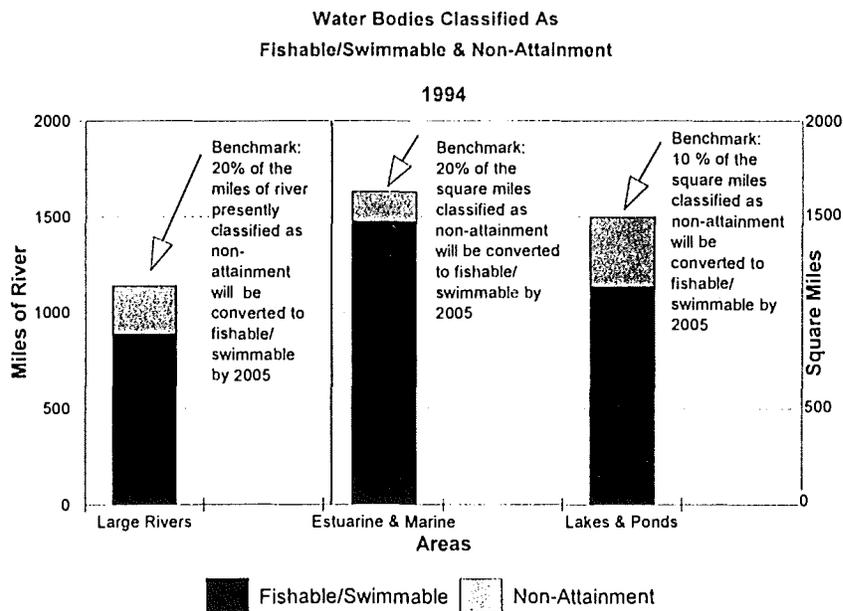
The health of our industries which rely on natural resources is measured in terms of the average age of fish harvesters, Maine's percent share of New England agriculture by farm level cash receipts, and employment in key natural resource industries. Growth rates in value added are examined in the following industries: tourism, paper, lumber, farming, food, and services to natural resource industries. Increasing the value added by natural resource based industries is critical to long term economic and environmental health.

The Maine Environmental Priorities Project is an effort designed to identify, compare and rank environmental problems according to the relative risk they pose to Maine's ecology and to citizens' health and quality of life. An initial prioritization of environmental problems is soon to be published which the Growth Council will consider as the performance measures and benchmarks are refined. Other initiatives which have overlapping concerns with regard to Healthy Natural Resources include the Maine Council on Sustainable Forest Management, Charting Maine's Economic Future, Sustainable Maine, the State's Economic Development Strategy, and the Commission on Performance Budgeting.

# Major Water Bodies Suitable for Fishing & Swimming

**Benchmark:** Amount of areas suitable for swimming and fishing will increase as follows: (1) large rivers and estuarine and marine areas by 20%, and (2) lakes and ponds by 10%, by 2005.

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



## About This Performance Measure

Designated uses of surface water bodies are defined by the Federal Clean Water Act and Maine statute. The benchmark for lakes and ponds is lesser than for coastal areas and rivers because the water in lakes and ponds is slower to rejuvenate; flushing cycles are not as frequent. Non-attainment areas, referred to in the graph, are areas which are classified as unsuitable for fishing and swimming.

## Why This is a Performance Measure

There seem to be few things more precious to Maine people than clean water: water for drinking, for recreation, and for nourishing wildlife. Among other benefits, clean and abundant water attracts and supports economic development and is necessary for economic growth.

**Maine Today:** In 1994, 77.65% of miles of large rivers, were classified as fishable/swimmable, 75.62% of the square miles of lakes and ponds, and 90.21% of the square miles of estuarine and marine waters.

### Data Source

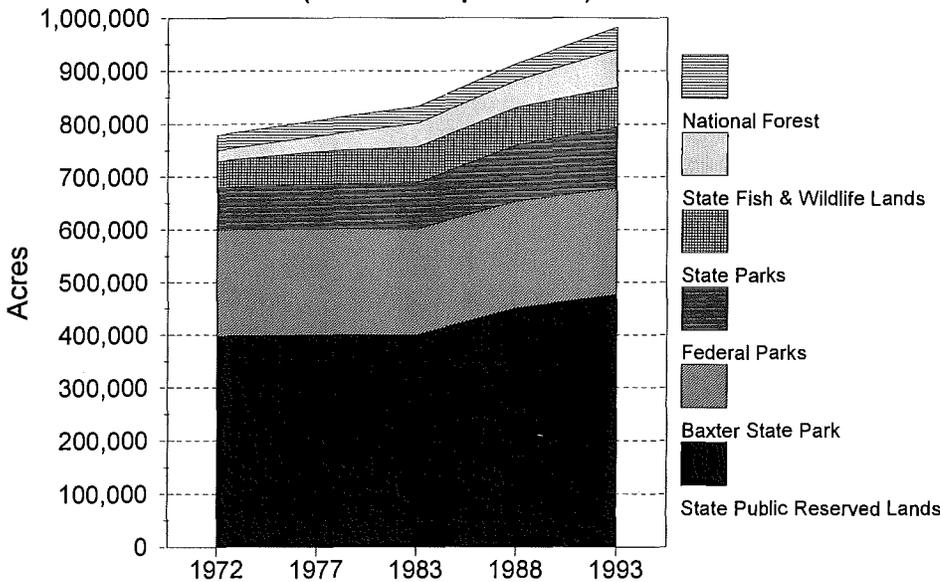
*State of Maine Water Quality Assessment*, prepared by the Maine Department Of Environmental Protection.

# Amount of Conservation Land Intended for Public Use

**Benchmark:** Amount of conservation land intended for public use will increase by 10% by the year 2000.

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

**Land in Conservation**  
(intended for public use)



## About This Performance Measure

Generally, these are the lands where "use is encouraged" - where there are maintained roads and/or trails, campsites, vehicle parking, and where they are publicized as recreation sites. These lands include Baxter State Park, Acadia National Park, the Allagash Wilderness Waterway and the Maine sections of the White Mountain National Forest. State Public Reserved Lands are managed for multiple use purposes including recreation, wildlife habitat, and timber management.

**Land Acreage Devoted to Conservation**  
Where Use is Encouraged

	1972	1977	1983	1988	1993	20 Year Increase
State Public Reserved Lands	398,373	400,339	400,421	451,255	476,417	20%
Baxter State Park	201,018	201,018	201,018	202,539	202,539	1%
Federal Parks	80,150	84,343	86,808	106,738	115,045	44%
State Parks	48,949	62,069	67,577	70,844	74,835	53%
State Fish & Wildlife Lands	22,339	29,696	45,259	50,944	71,906	222%
National Forest	28,024	29,236	31,736	31,736	41,943	50%
<b>Total</b>	<b>778,853</b>	<b>806,701</b>	<b>832,819</b>	<b>914,056</b>	<b>982,685</b>	<b>26%</b>

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## Amount of Conservation Land Intended for Public Use

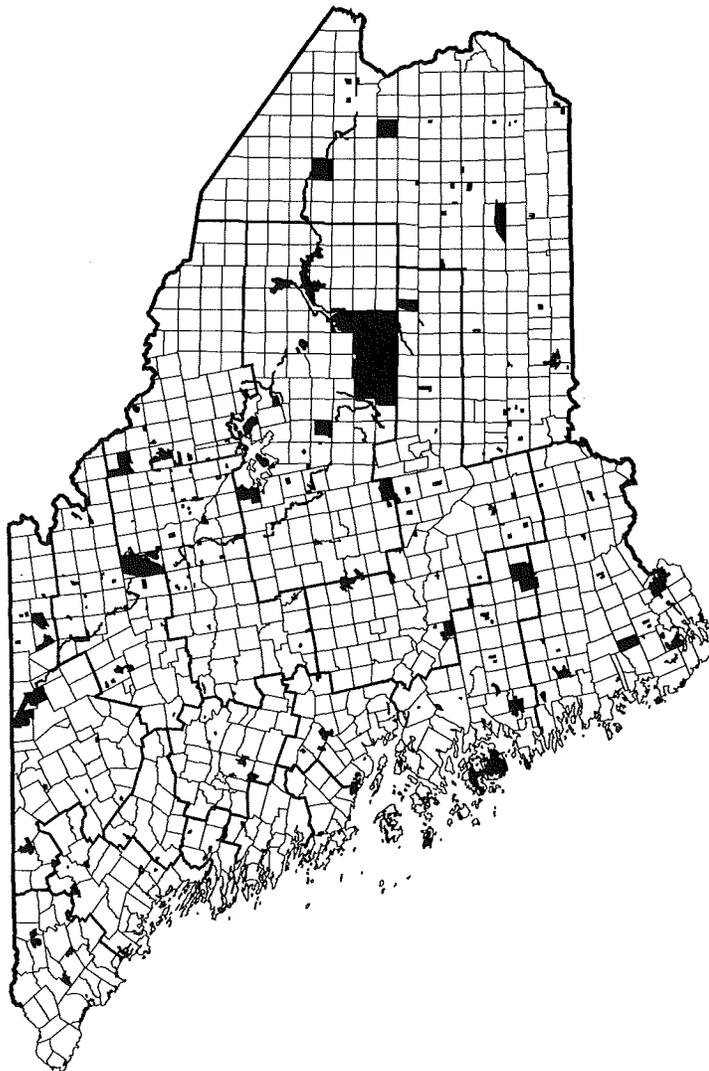
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### Why This is a Performance Measure

Land in conservation intended for public use has dual economic benefit. (1) Maine has an outstanding reputation for outdoor recreation opportunities, largely because of our large expanses of undeveloped working forest land and coastal areas. People live in Maine and visit Maine because of our relatively easy access to such areas. Maintaining and improving such areas bodes well for the long term health of the economy. (2) Looking a hundred or more years down the road, conservation lands are a benefit because they are places of stored natural capital, biodiversity, and oxygen production critical to the long term economic health of Maine and world citizens.

**Maine Today:** As of 1993, 952,722 acres in Maine were in conservation and intended for recreation. Recent increases in state holdings were largely the result of the Land for Maine's Future \$35 million acquisition program.

### Related - Distribution of Conservation Lands



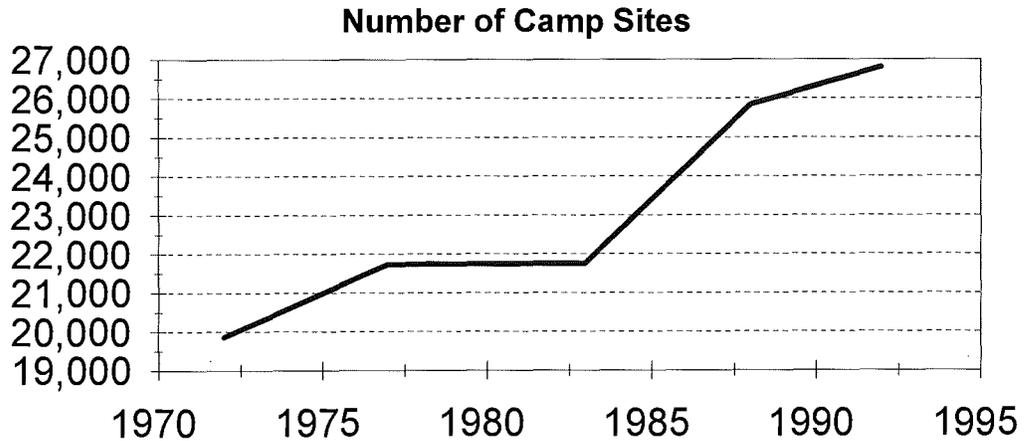
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**Amount of Conservation Land Intended for Public Use**

**Related - Use of Conservation Lands**

While the total acreage of the lands shown in the first graph has increased by 26% over 20 years, the number of campsites has increased by 35% over the same period. Most of Maine's campsites are on private lands. This indicates that Maine's private and public lands are being used more intensively than they were 20 years ago. Other facilities that have grown in number faster than the pace at which conservation lands have increased include hiking trails, snowmobile trails, nature walking trails, ski touring trails, downhill ski area capacity, and parking spaces for boat launches.



**Data Source**

Natural Resources Policy Division of the Maine State Planning Office. *Maine Land in Federal, State, Municipal, and Non-Profit Conservation Ownership*, 1989 and 1993; and *State Comprehensive Outdoor Recreation Plan*, 1993.

# Diverse Value of Forestry Resources

**Benchmark:** Not yet established.

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

---

## Why This is a Performance Measure

The lumber and paper industries alone account for about 7% of the Maine economy. Additionally forest resources are used for recreation, energy generation, and as valuable wildlife habitat. Balancing these uses and maintaining diversity of usage is fundamental to the long term economic growth of the state.

## Measure and Benchmark to be Established

It is sensible to wait to establish a measure and benchmark for forest resources for the following reasons: (1) the results of a 12 year inventory are due to be published within a year, and (2) the Maine Council on Sustainable Forest Management will soon deliver recommendations. When complete, the inventory and recommendations will be used to develop a more precise performance measure and benchmark. It is anticipated that the measure will be concerned with diversity of forest uses and values.

## The U.S. Forest Survey Inventory

Approximately every 12 years, the U.S. Forest Service conducts a comprehensive inventory of the Maine forest. Through a system of remeasuring more than 3,000 permanent plots, they obtain accurate estimates of total volume, growth, mortality, harvest levels, and many other characteristics for all major tree species. The results are reported in a regional geographic unit. Surveys were completed in 1959, 1971, and 1982. The fourth survey is currently underway with results expected by summer 1996.

## The Maine Council on Sustainable Forest Management

This council is charged to develop benchmarks of sustainability against which forest landowners can assess their forest management practices. In summer, 1996, they will present criteria and goals for forest sustainability, and a plan to monitor progress. The council is appointed by the governor and staffed by the Department of Conservation, commissioner's office.

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# Natural Resources Indexed via GIS

**Benchmark:** Not yet established.

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

---

## Why This is a Performance Measure

In order to make sound decisions regarding the management of our natural resources, we need sound information about the status and trends of those resources. Given that GIS [Geographic Information System] coverage is one of the most useful informational tools that we have, and it is often a composite of several other forms of information, GIS coverage has been chosen as the indicator of environmental information availability.

## Measure and Benchmark being Developed

The Environmental Priorities Project will soon be publishing a statement of Maine's environmental priorities. This will give clear indication of which environmental characteristics should be mapped and available via GIS. The scale at which things should be mapped varies and needs to be determined for each layer. Once the environmental priorities are established, this performance measure will be refined.

## Key Information to be Maintained in GIS

As an initial list, data on the following should be collected and available via GIS:

### Land Use

- Developed
  - Commercial
  - Industrial
  - Residential
- Undeveloped
  - Forested
  - Agricultural
  - Wetlands

Surface Water Quality

Ground Water Quality

Air Quality

Public Health Statistics

# Recycling Activities of Maine Businesses

**Benchmark:** The percentage of manufacturing businesses that recycle manufacturing by-products will increase substantially.

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

---

## Why This is a Performance Measure

Recycling is an indicator of efficient use of resources. It can also be a boost for economic growth. Recycling of manufacturing by-products has been chosen rather than other types of recycling because manufacturing by-products account for a very large proportion of the solid waste stream.

**Maine Today:** Of the 239 manufacturing companies responding to *The 1995 Maine Business Performance Survey*, 51% said that they recycled manufacturing by-products. Twenty-five percent said they didn't, and 24% did not answer.

## Related - Recycling of Office Waste

Among all types of businesses (non-manufacturing and manufacturing) 57% said they had a program for recycling office waste.

---

### Data Source

The 1995 Survey of Maine Businesses commissioned by the Maine Economic Growth Council. See Chapter 3.

# Average Age of Fish Harvesters

**Benchmark:** The average age of fish harvesters will decrease to 35 by the year 2005.

**Towards Goal N:** Maine will increase niche marketing, recreational opportunities, and value added approaches for better utilization and conservation of natural resources.

## Why This is a Performance Measure

This measure is a proxy for "perceived opportunities" in the fishing industry. If there is a belief among fish harvesters (non-sexist term for fishermen) 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 be a good sign for the industry.

Unlike estimates of abundance and health of stocks which are notoriously difficult to estimate and often inaccurate, this measure relies on the judgment and circumstances of young, potential harvesters.

## About This Performance Measure

Having this as a 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.

This data is gathered from licenses that the state issues for people to fish or otherwise harvest in Maine waters. In 1994, for instance, the state issued 11,289 commercial fishing licenses of 21 different varieties. This measure looks at average age of all those who got licences. Harvesters with more than one license (a common occurrence) were counted only once for the purpose of calculating average age.

Along with perception of the health of the industry, average age of harvesters is also influenced by regulatory barriers to workforce entry. As it happens, there are now entry barriers in three Maine fisheries and there are federal regulations requiring a severe reduction in groundfishing effort. All other factors being equal, these barriers will cause the average age to rise. The benchmark calls for a reduction in the average age to around 1985 levels.

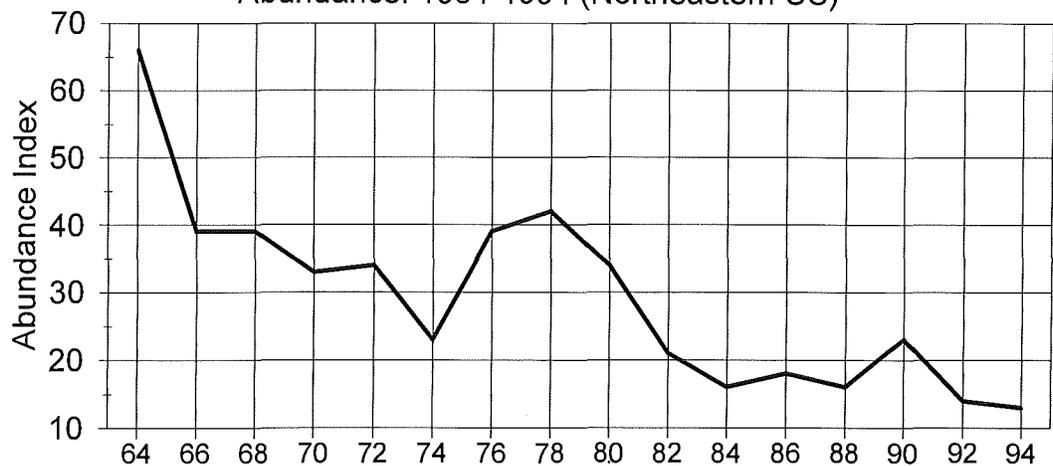
**Maine Today:** The average age of Maine fish harvesters in 1995 was 38.8 years old, up from 31.4 which was the average age in 1985. In 1992, the average age reached 39.2 and has experienced a very slow but steady decrease over the past four years.

### Related - Abundance of Groundfish Stocks

The graph to the right reflects an estimate of stock abundance of Atlantic cod, haddock, redfish, silver and red hake, and pollock off the northeastern United States. These estimates are derived from bottom trawl surveys conducted

## Principal Groundfish and Flounders

Abundance: 1964-1994 (Northeastern US)



Continued Next Page

throughout the northeast. The index is the result of a complex calculation used by the National Marine Fisheries Service.

Clearly, the abundance of these particular types of fish is in decline. The decline is primarily the result of over fishing; although weather, warming of the oceans, and other environmental factors are also likely contributing to the trend.

Between 1963 and 1974, these stocks declined by almost 70%, primarily as a result of foreign fishing effort. Having now reached crisis proportions, new federal regulations have now been put in place designed to reduce fishing effort and stabilize this downward trend over the next few years.

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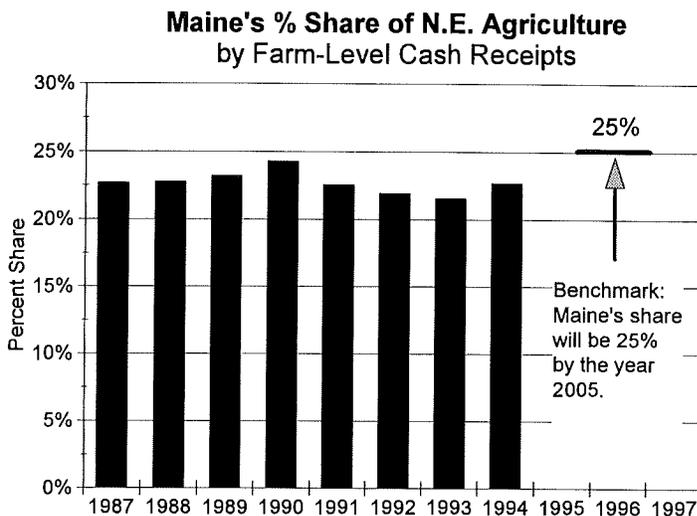
**Data Source**

Maine Department of Marine Resources. Department of Commerce, National Marine Fisheries Service, *Technical Memorandum NMFS-NE-108*. Updated annually.

# Maine Agriculture Production Compared to New England

**Benchmark:** Maine's share of total New England farm-level cash receipts will be 25% by the year 2005.

**Towards Goal N:** Maine will increase niche marketing, recreational opportunities, and value added approaches for better utilization and conservation of natural resources.



## About This Performance Measure

Farm-level cash receipts is an aggregate of all revenues generated from agriculture. Maine's success at generating wealth from agriculture is measured in relation to the New England market, in which we are competing. To compare our performance with the U.S. is not practical because Maine's mix of commodities is so different. Comparisons with New England makes sense because these states experience similar external forces on their agriculture industries.

**Maine Today:** In 1994, farm-level cash receipts in Maine totaled \$482,729,000. Currently, Maine is New England's largest agricultural state, although that market position is not stable. The last time Maine was in this lead position was 1990.

### New England Farm-Level Cash Receipts in Thousands of Dollars

	1987	1988	1989	1990	1991	1992	1993	1994
Maine	\$408,549	\$409,384	\$437,105	\$488,645	\$441,785	\$458,239	\$453,287	\$482,729
Vermont	\$434,316	\$415,318	\$440,130	\$466,380	\$438,654	\$479,268	\$489,196	\$480,548
Connecticut	\$364,424	\$366,987	\$387,431	\$439,246	\$426,313	\$467,468	\$474,510	\$472,741
Massachusetts	\$383,216	\$394,811	\$412,774	\$411,736	\$447,347	\$460,186	\$454,817	\$458,731
New Hampshire	\$136,023	\$132,071	\$135,230	\$135,975	\$136,087	\$151,129	\$152,431	\$151,911
Rhode Island	\$75,631	\$77,599	\$72,374	\$70,228	\$69,425	\$73,350	\$79,192	\$80,748
<b>TOTAL</b>	<b>\$1,802,159</b>	<b>\$1,796,170</b>	<b>\$1,885,044</b>	<b>\$2,012,210</b>	<b>\$1,959,611</b>	<b>\$2,089,640</b>	<b>\$2,103,433</b>	<b>\$2,127,408</b>

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# Maine Agriculture Production Compared to New England

Continued

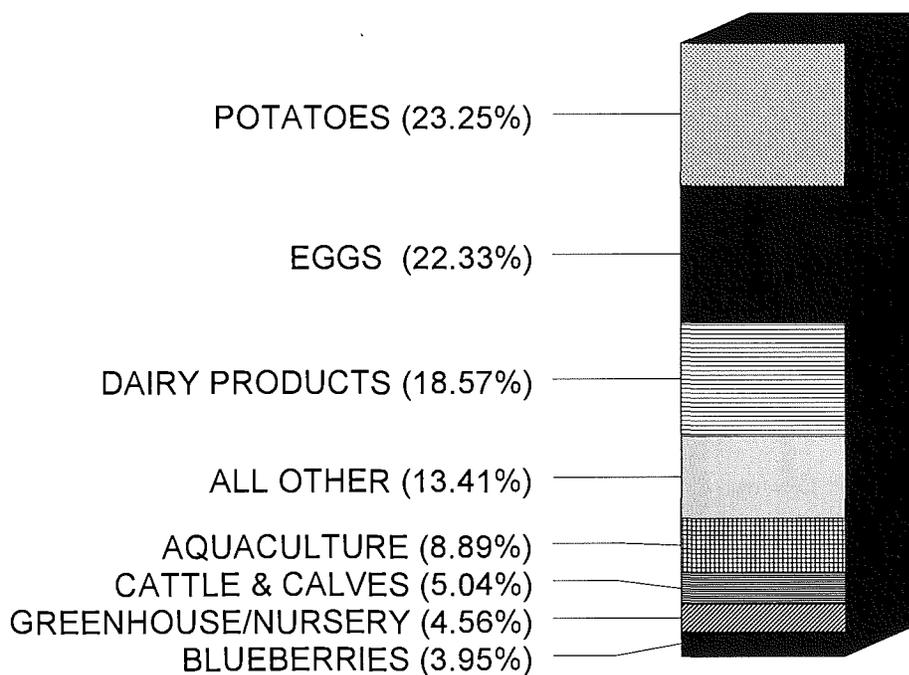
## Maine's Mix of Agricultural Commodities

Agriculturally, Maine has the greatest diversity in New England and is one of the most diverse states in the nation. However, as seen by the graph, we are still fairly dependent on three large commodities. A total of 64% of the receipts are generated by potatoes, eggs, and dairy products. This is particularly troublesome given that there is considerable instability in each of these three industries.

To ensure stability, and enhance prospects to increase market share, Maine should try to diversify among commodities even further, decreasing reliance on the big three.

Of all the largest commodities, the greenhouse/nursery industry is growing the most quickly.

## Largest Agricultural Commodities by 1994 Farm-Level Cash Receipts



**Data Source**

National Agricultural Statistics Service, USDA. Joyce Benson, Maine State Planning Office.

# Value Added in Natural Resource Industries

**Benchmark:** Value added in Maine's natural resource industries will grow at a faster rate than value added in those same industries for the US as a whole, between now and 2005.

**Towards Goal N:** Maine will increase niche marketing, recreational opportunities, and value added approaches for better utilization and conservation of natural resources.

## About This

### Performance Measure

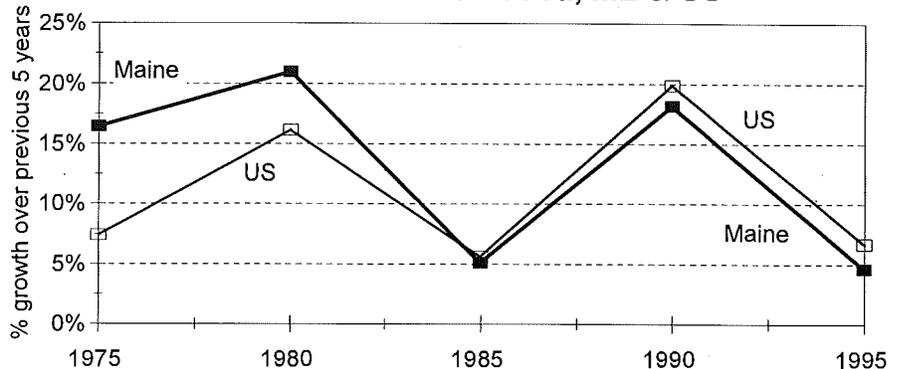
Value added is a measure of growth in wealth. Basically, it is the amount of money that goes to wages for employees and profits for owners. It is the price of the product or service minus the material inputs. If someone pays \$10 for a log, \$5 to rent some tools, and makes a toboggan that sells for \$50, there has been \$35 worth of value added. It's \$35 added to someone's wealth. Gross State Product is an aggregate measure of all value added in the state.

This measure tracks Maine's value added performance in key natural resource-based sectors relative to US performance for the same sectors. Six graphs, one for each industry, are presented.

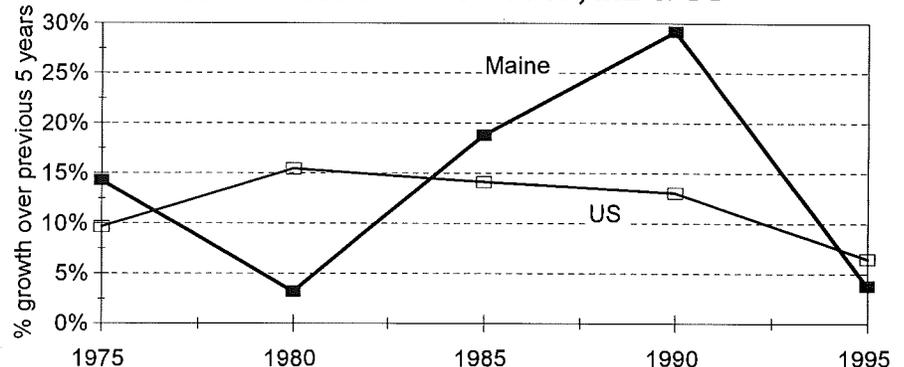
*Services to Natural Resource Industries* is actually a composite of those sectors which provide services to the agriculture, fishing, and forestry industries. Value added from commercial fishing is counted as part of the *food* industry.

These sectors are delineated by Standard Industrial Codes (SIC). Tourism is a composite of the following 3 classifications: eating & drinking, hotels & motels, and amusements & recreation. For 1990 and 1995, all the data presented are forecasts.

**Paper**  
**5-Year Growth in Value Added, ME & US**



**Tourism**  
**5-Year Growth in Value Added, ME & US**



**Maine Today:** Maine's five-year growth rate in value added exceeds the US five-year growth rate in the food industry, the farming industry, and in services to natural resource industries. In the paper, tourism, and lumber industries, Maine's five-year growth rate in value added is lagging behind the growth rates for the US as a whole.

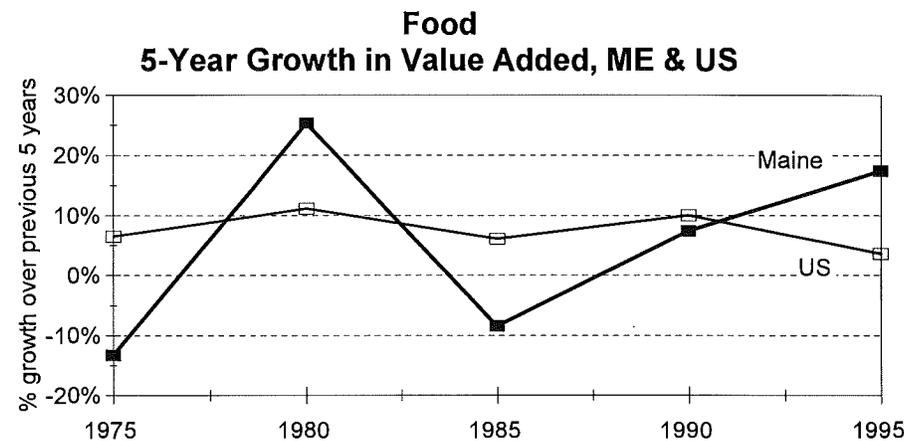
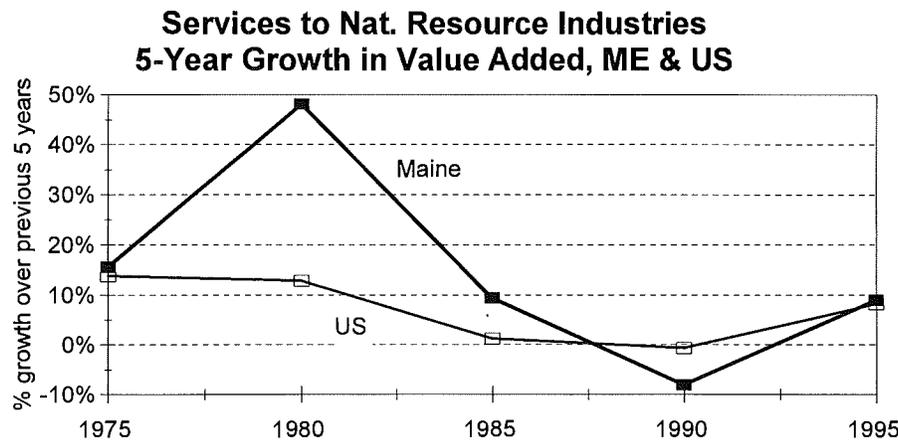
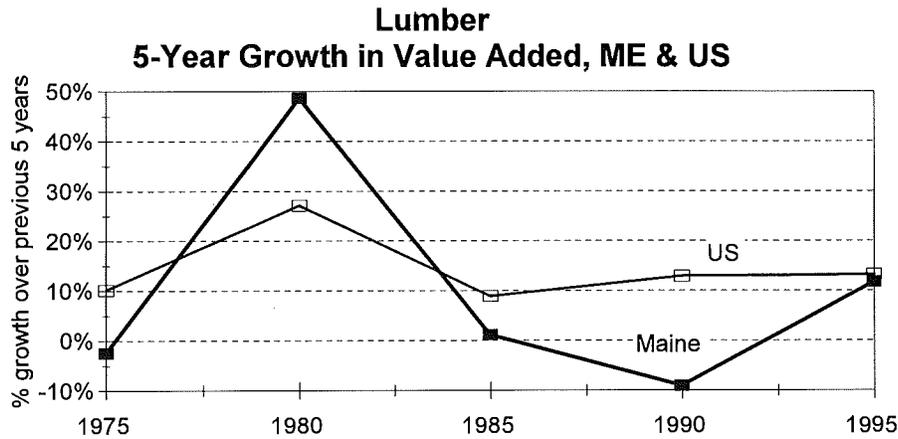
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# Value Added in Natural Resource Industries

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## Why This is a Performance Measure

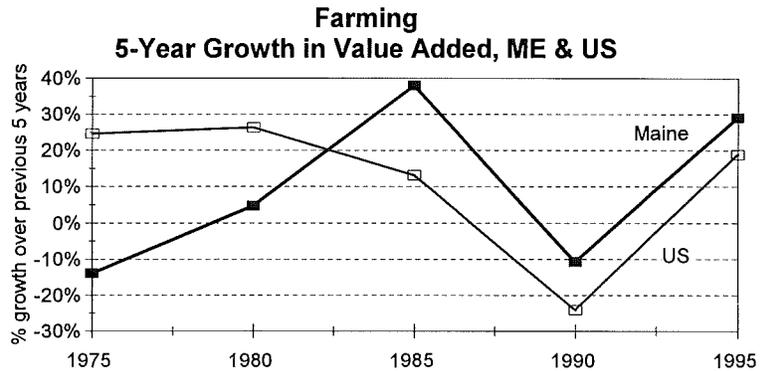
In the world today, economies are judged by the extent to which they are adding value. Where there is little value added, such as in third world countries where natural resources are only slightly improved before use or export, the environment and the people are impoverished. In natural resource-based economies like Maine's, adding value is critical--both to making efficient use of our resources (minimizing depletion) and providing adequate numbers of jobs at liveable wages.



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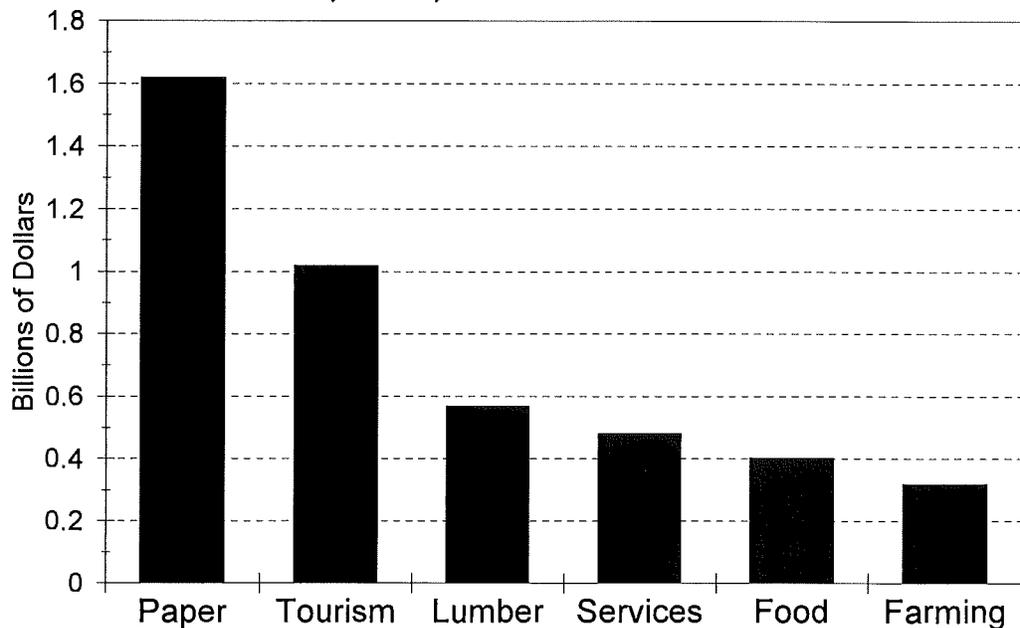
## Value Added in Natural Resource Industries



### Related - Relative Size of Sectors

Paper is Maine's largest natural resource based industry, followed by tourism. Fishing value added is relatively small and is counted as part of the food sector. These six natural resource industries comprise 13.5% of the total value added in the state, just over 1/8 of the state economy. The data presented for 1990 and 1995 is based on estimates.

### Estimated Valued Added by Sector Maine, 1995, in Billions of Dollars



#### Data Source

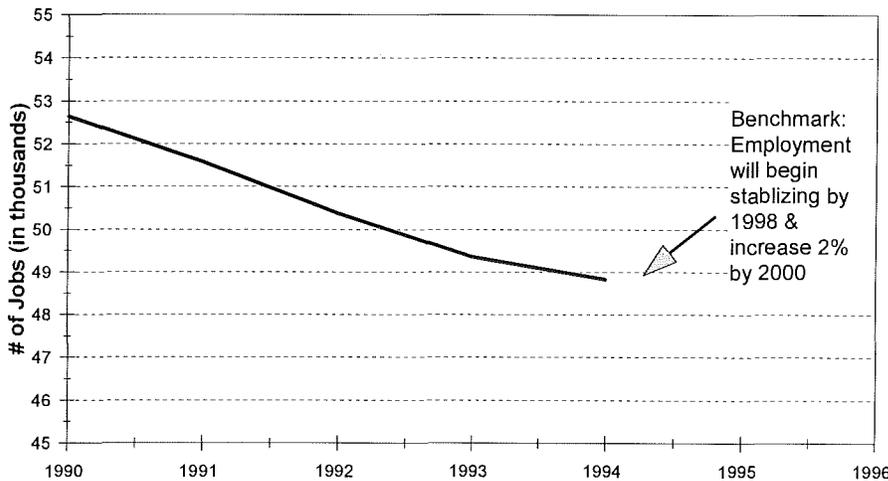
Maine State Planning Office, *Long Range Economic Forecast*, December, 1993.

# Employment in Natural Resource Industries

**Benchmark:** Employment in natural resource industries will begin stabilizing by 1998 and will increase by 2% by 2000.

**Towards Goal N:** Maine will increase niche marketing, recreational opportunities, and value added approaches for better utilization and conservation of natural resources.

**Employment in Key Natural Resources Industries  
Three-Year Moving Average**



## About This Performance Measure

This measure looks at employment levels in the paper industry, the lumber industry, the food industry (includes farming and fishing products), and services for agriculture, forestry, and fishing. These are the industries that rely on the utilization of raw natural resources.

The graph presents the date in terms of a "moving average." This means that for each year, the data point is the average number of people employed over the previous three years.

Employment in Key Natural Resource Industries										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
<b>Paper</b>	17,853	17,242	16,846	17,748	17,642	17,571	17,179	16,498	16,173	16,073
<b>Lumber</b>	17,521	17,808	18,145	17,029	16,291	15,074	14,600	14,101	14,552	14,715
<b>Services</b>	10,573	11,142	10,784	11,433	11,343	11,903	11,953	11,321	11,184	11,495
<b>Food</b>	8,224	8,111	7,944	7,675	7,005	7,214	6,953	6,758	6,809	6,811

## Why This is a Performance Measure

This group of natural resource industries accounts for about 7% of all the jobs in Maine. The number of people employed in natural resources is in part a reflection of the efficiency with which we are developing our natural resources.

**Maine Today:** Employment in natural resource industries is on the decline. There are several indicators pointed to a continued decline. For instance, we know that fishing regulations are forcing people out of that industry. In some cases, advanced mechanization is resulting in fewer employed.

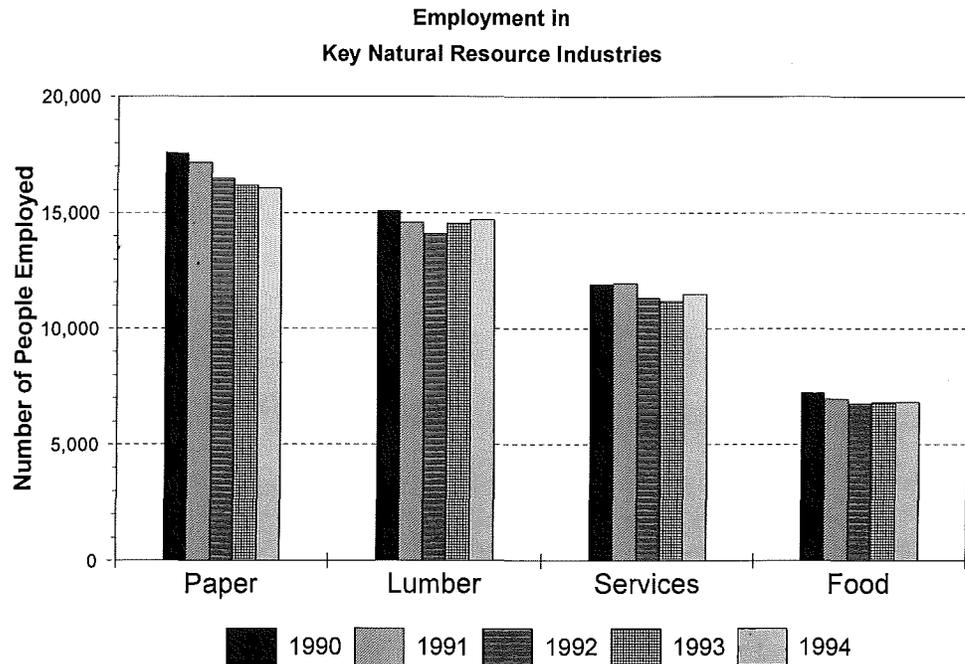
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## Employment in Natural Resource Industries

### Related - Employment by Sector

As shown on the graph, employment in the paper and food industries is in decline, perhaps is on the increase in the natural resources services industry, and appears to be on the increase in the lumber industry. The food sector includes most jobs in fishing and agriculture. The service sector includes all services to the fishing, farming, and forestry industries.



**Data Source**

US Bureau of Economic Analysis and the Maine State Planning Office.



## Chapter 3

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# Opinions of Maine Citizens and Businesses Survey Results

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# Introduction

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## **Surveys provide baseline data**

The first report of the Maine Economic Growth Council, *Goals for Growth*, set forth specific goals and made suggestions for a wide array of performance measures. For many of these measures, no existing data could be found. Consequently, the Growth Council commissioned two surveys, one of citizens and one of businesses, to gather baseline data for those measures for which data was lacking. The surveys were designed in such a way as to gather opinions representing the state as a whole.

This chapter summarizes key findings from the two surveys that address the overall health of the Maine economy as perceived by both citizens and business managers/owners. Findings are presented in the areas around which the Growth Council has organized its work.

The surveys were designed by Dr. Charles S. Colgan of the University of Southern Maine's Muskie Institute of Public Affairs, Beth Sheehan, now with Coastal Enterprises, Inc., Lucien Gosselin of the Maine Development Foundation, and Barbara Nash, President of Market Decisions, Inc. of South Portland. The surveys were conducted in September and October, 1995.

## **Real value in future years**

The real value of these surveys will be realized in future years as they are repeated and changes from 1995 are assessed. Most of the questions posed in the surveys were designed with this future use in mind, but there is much information contained in the surveys about Maine at the mid-point of the 1990s that goes beyond the regular statistics by which economic conditions are assessed.

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# General Assessment

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## **Perceptions of economic conditions mixed**

An overall assessment of the current Maine economy shows that despite nearly three years of steady economic growth, perceptions of current Maine economic conditions are very mixed. Maine citizens are evenly divided about economic conditions in 1995 compared to the previous year, with about half reporting that conditions are about the same, and a quarter each reporting that conditions are improving and that they are getting worse. Maine businesses are somewhat more optimistic, with 43% reporting improved conditions, and 62% expecting an increase in sales in 1995 over 1994.<sup>1</sup> Nearly a quarter (23%) expect that sales in 1995 will increase by 20% or more over 1994.

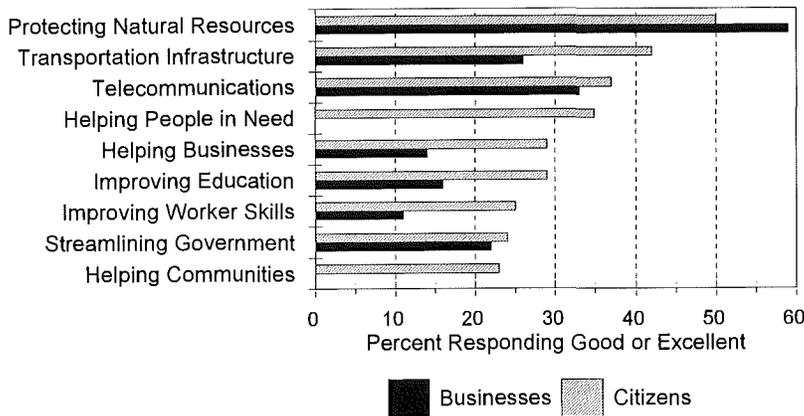
## **Businesses and citizens assess performance**

Maine businesses and citizens were both asked to assess how well the state is doing in accomplishing a number of essential tasks, shown in Figure 1. Maine's efforts at protecting natural resources received the highest rating among both groups, with businesses giving somewhat higher marks.

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1. Responses to the Business Performance Survey are reported on an firm-weighted basis. This method counts each firm equally. In some cases, responses are reported on an employee-weighted basis, which emphasizes the responses of firms employing a larger proportion of Maine's workforce. Employee-weighted responses are noted when they differ significantly from the firm-weighted responses, indicating that larger firms had somewhat different views.

Figure 1  
How Well Maine is Doing at....



Citizens tended to give somewhat higher marks in each of the other areas. In some, such as helping create a state-of-the-art telecommunications system, the two surveys are relatively close in terms of the number of respondents providing a positive assessment of Maine's performance. On others, however, business respondents were much less likely to provide a positive assessment. The greatest divergence was in the assessment of improving workers'

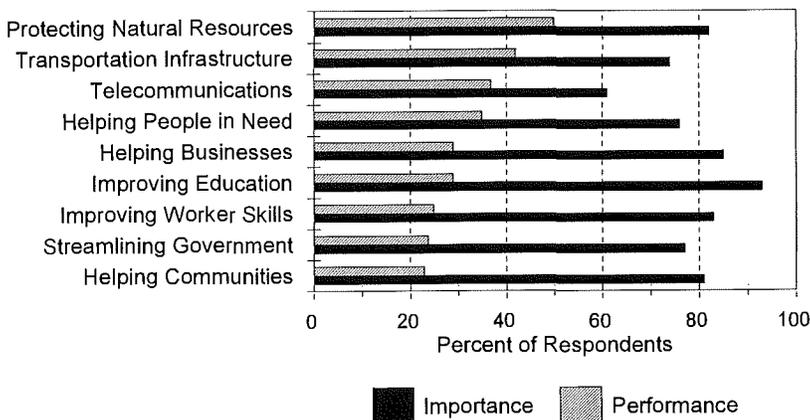
skills, improving education, and helping businesses. Businesses were also less likely to rate Maine's performance in improving transportation infrastructure.

Two areas, helping communities thrive and helping the needy, were addressed only in the citizens survey. The latter was rated by the citizen survey respondents about in the middle, while "helping communities thrive" was one of three areas (along with streamlining government and improving workers' skills) where relatively fewer citizen survey respondents gave Maine high marks.

In the citizen survey, respondents were also asked to provide their views on the overall importance to the future of Maine of these issues. Figure 2 compares the citizen survey responses on how important an issue is with the assessment of current performance from Figure 1.

**Citizens assess priorities**

Figure 2  
Citizen Opinion of Importance and Performance



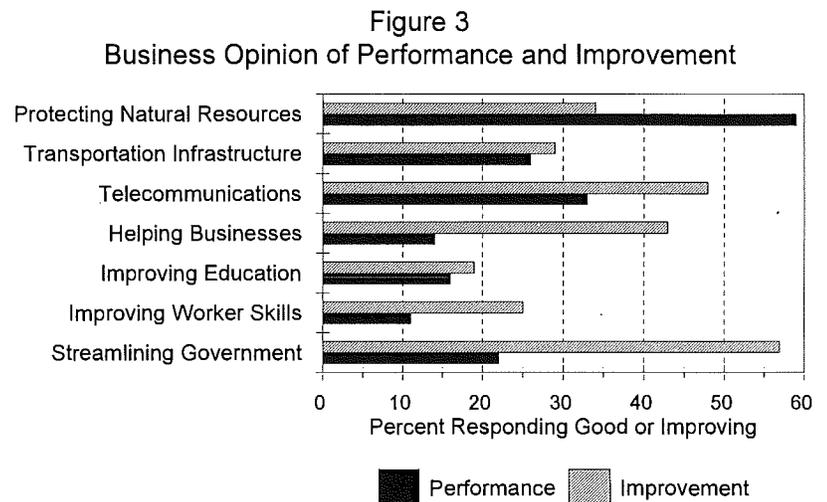
What is notable about these responses is that there is an inverse relationship between the priorities and current performance. Ninety-three percent of respondents give highest priority to education, but only 29% assessed current Maine performance good or

excellent. At the other end, two-thirds of respondents rated improving telecommunications as important, while one half gave Maine's current performance a high rating.

## Businesses assess priorities

Businesses were asked a slightly different set of questions. In addition to examining current performance, they were asked whether or not performance was improving. Figure 3 compares current performance to improving direction. Respondents were generally more optimistic about the direction of performance. The greatest difference is in the area of streamlining government, where 57% of respondents said the state is improving (compared

with 22% who say the state has done a good or excellent job.) Business respondents were also more positive about the direction of efforts to help businesses grow. Respondents were closest in their assessment of current and future performance in the area of transportation infrastructure.



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## Innovative Businesses

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The ability of businesses to innovate is fundamental to the long term economic health of Maine and to the growth in job opportunities in Maine. In an increasingly competitive national and international economy, businesses that can make new products or find new markets first are those that have the advantage. The business survey sought to directly measure the extent to which Maine businesses are innovating, and both surveys examined important aspects of work in Maine today that are not reflected in the usual employment figures.

## Companies developing new products

Forty-four percent of Maine firms have developed new products or services within the general definition of their core business over the past year. Manufacturing firms and large firms (more than 51 employees) were more likely to have developed new products and services. Nineteen percent of firms developed entirely new lines of business over the past year. Again, larger firms were much more likely to have done this than smaller firms. Almost half (49%) of the responding firms indicate that the development of new products and services has come in response to feedback from their customers; large companies were much more likely to solicit and respond to customer feedback than small firms (70% v. 47%).

Three quarters of sales by Maine firms were to individuals or organizations within Maine. Of the sales out of Maine, 19.5% were to other states, and only 2% exported outside the United States. It is important to note that many businesses do not keep records that permit easy identification of this data.

The percentage of exports outside Maine increases dramatically for manufacturing firms and for larger firms, as might be expected. Manufacturing sales outside the U.S. are reported at four times the level for all firms, but still account for only 8% of sales. On the other hand, exports outside the U.S. are on the rise, with 8% of all firms reporting increased export sales over the past five years, and 25% of manufacturing firms reporting an increase.

## **Manufacturing leads exports**

A key part of innovation is research and development. Maine firms report that they invest on average only 2.9% of their annual budgets on research and development, and nearly 40% of all companies responding to a question about their R&D activities report no research and development expenditures at all (27% of firms did not respond to this question). These figures are nearly constant across all sizes of businesses. However, manufacturing firms report nearly twice the level of investment in research and development (5.5%) as the entire sample of companies.

## **Investment in research and development**

At the same time, nearly 40% of firms (50% on an employee-weighted basis) report having made investments in significant expansions or improvements in production technologies over the past years. Again, larger firms and manufacturing firms were more likely to have made investment. Information technologies are widely recognized as a key to increasing productivity and competitiveness in all industries, but fewer than half of all employees in Maine companies use computers in their day-to-day work (44%). This holds true  $\pm 1\%$  across all sizes of firms. A higher proportion of employees in non-manufacturing companies use computers (44.7%). Nonetheless, 59% of citizen survey respondents say their company is technologically up-to-date.

Telecommunications is another key part of the information technology revolution. The most prevalent of the new technologies is the fax machine (used by 71% of all firms, and 97% of large firms). Over half of the firms report using modems with their computers, and nearly 40% have 800 numbers (three quarters of large firms have an 800 number). The Internet is the most recent key communications and computer technology, and Maine firms have just begun to use it; 17% of firms report having E-mail access outside the company, while 13% report using other parts of the Internet.

## **Telecommunications**

Businesses were asked about their needs for various kinds of assistance in spurring growth. The highest priority (39%) need was for technical assistance in helping to identify and exploit new markets. Assistance with technological upgrades and with new products and services was requested by about 18% of respondents. Patent assistance was requested by only 1%. The lack of venture capital financing for new firms and expansions is often seen as a barrier to expansion; 51% of firms responded that they believed venture capital would be available if needed, while 31% did not think it would be available.

## **Business assistance**

Both citizens and businesses were asked to assess how Maine is doing in assisting business to grow. Eighty-five percent of the citizen survey respondents indicated that "helping Maine's businesses grow and prosper is either a critical or very important priority; this was the second highest among the issues that citizens were asked to prioritize. However, only 29% of citizens and 14% of businesses believe the state is doing a very good or exceptional job of helping businesses grow. At the same time, 43% of business respondents indicated they believed that the state's performance in helping businesses is improving.

Business respondents were asked additional questions about how well the state is doing to help business create jobs, retain businesses, and promote Maine to other states and other countries. Few business respondents rated current state performance at helping create jobs (11%) or retain businesses (8%) highly. About half of respondents believe the current performance in each of these areas is "fair." Higher proportions of respondents indicated improving performance in the areas of helping businesses create jobs and retaining businesses.

## **How well is the state doing helping businesses create jobs?**

Maine businesses give the state somewhat higher marks at promoting businesses in the rest of the U.S. and internationally. Twenty-three percent rate the state highly in terms of promoting Maine in the U.S., while 17% do so with respect to foreign trade promotion. Again, about half of all respondents rate the state as "fair" in these areas. About 40% of businesses also believe that the direction of performance in these two areas is improving.

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## Productive Workers & Rewarding Employment

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While employment in Maine has now recovered to pre-recession levels, there is still substantial concern that the jobs being created are of lower quality than in the past. There is also increasing recognition that the nature of work is changing, with much greater emphasis on employee involvement in decision making and on the acquisition of advanced skills. However, standard employment statistics are not well designed to measure such questions, so both the citizen and business surveys explored the nature of work and skill development in Maine.

### **Work in Maine today**

Seventy-eight percent of citizen survey respondents who are employed reported that they are strongly or very strongly satisfied with the type of work they do. An identical percentage reports that their current job is a good match for the types of skills they have. Only 8% report being somewhat to very unsatisfied with their job, and 9% reported some degree of skills mismatch. At the same time, only 57% of employed respondents indicated that they feel secure about the future of their jobs, and 21% reported some degree of insecurity. Only slightly more than half report satisfaction with their salaries and their fringe benefits. Asked about their families' abilities to make ends meet, 73% report that they can afford necessities and some "unnecessary items" with at least some budgeting. This is related to the fact that over half (52%) of respondents have two or more earners contributing to the household income.

### **Fringe benefits and work conditions**

The business survey sheds additional light on the issue of fringe benefits and working conditions. When asked about a variety of benefits and employee management practices (personnel handbook, health care plan paid in part by employer, regular performance appraisals, a stated mission, flex time, retirement plans, "cafeteria" benefit choices, tuition reimbursement, and elder or child care benefits), there is a marked distinction between large and small firms. More than 50% of all firms employing more than 50 people report having all of these available for their employees, while fewer than 50% of firms with fewer than 10 employees report having all of these available. Only flex time is more available in small companies than large. Across all sizes of firms, the most common element is having a written personnel policy (most firms have one), and the least common is child or elder care (4% of all firms; 16% of firms with 50 or more employees.)

Maine people report that while they are satisfied with the type of work they do, they are also working very hard at their jobs. Fifty-nine percent of respondents indicate that they regularly work more than 40 hours per week, and 56% report that they are moderately to very dissatisfied with the amount of recreation and relaxation time.

### **Rise of part- time employment**

The rise of part-time employment is a major concern about the current economy. Of the two-thirds of respondents to the citizen survey who report they are employed, 83% report they are employed more than 35 hours per week, while 17% report employment less than 35 hours a week. Seventy-seven percent of those who work part-time report they do so voluntarily. Of the 5.8% of the labor force who were unemployed at the time of the survey, 60% indicated they were looking for full time work, while 40% indicated they were looking for part-time work.

## **Worker involvement increasing**

The involvement of workers at all levels in decisions affecting a company is increasingly seen as an important element in business performance and employee satisfaction. Over half (51%) of the citizen survey respondents agreed or strongly agreed that their ideas would receive attention and might be implemented. Seventy-two percent of business respondents indicated that they actively seek changes and enhancements in their operations from employees and 58% indicate that they reward employees well or very well for presenting ideas that could benefit the company. These responses are consistent across all sizes of firms. However, when asked whether the company had conducted surveys or discussion groups to solicit employees and ideas, half had and half had not (again, larger firms were much more likely to have undertaken such action than small firms).

Concern about discrimination and equal opportunity in the workplace has been a significant matter for many. Eighty-four percent of citizen survey respondents agreed or strongly agreed that their employer "maintains an equal opportunity where traits such as a person's gender, race, and ethnicity have no impact on a person's ability to grow and succeed." Only 3% of respondents disagreed with this statement, and no one "strongly" disagreed. Responses to this question did not differ significantly between men and women.

Sixty-four percent of the respondents in the citizen survey recognize that in order to get ahead in their job, they will need to upgrade their skills and knowledge. This matches the 64% (firm-weighted) of business respondents that say that new investments they are making will require new skills for their employees. This is a clear message about the importance of education and training to the economy, but there remain a number of important questions.

## **Acquiring new skills**

Respondents to the citizen survey were asked whether they had attended educational seminars, programs, or courses over the past 12 months. Nineteen percent reported having done so within their community, 31% attended a public or private training program, 35% at work, and 38% at a higher education institution (the University of Maine System at 15%, Maine technical colleges at 7%, private Maine colleges at 6% or an out-of-state institution at 6%). This means that higher education institutions constitute the largest provider of education and training over the past year, but the work place is the most important single source.

The opportunity to acquire additional education and training is something that half of citizen survey respondents (51%) say is available at their work place, and a slightly higher proportion (53%) indicate that they are clearly encouraged to participate in additional training.<sup>2</sup> These answers are slightly lower than the 56% of business survey responses (67% on an employee-weighted basis) who indicate strongly or very strongly that employees at all levels are encouraged to participate in training and 52% (67% employee weighted) who indicate strong support for employees continuing their education.

## **Opportunities for education and training**

Increasing the links between the workplace and formal education is increasingly seen as a key to preparing tomorrow's workforce. Sixteen percent of Maine firms report that they offer internship opportunities to students in higher education institutions, and 11% have sponsored apprenticeship programs in the past year.

Nearly two-thirds of citizen survey respondents (64%) indicate their employers provide financial support for all or part of the costs of professional development training, and slightly more than half (51%) say their employers will pay all or part of the cost of courses leading to a certificate or degree. At the same time, business respondents report devoting an average of 3.4% of their budget on employee training, and this percentage is constant across companies of all sizes, though mid-sized companies (those employing 11-50) report a somewhat higher percentage (about 4.25%). Non-manufacturing companies report a somewhat higher percentage of their budget going to training than manufacturing firms (4% v. 3.4%).

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2. Percentages based on non self-employed respondents.

**Citizens rank education as critical priority**

Both citizen and business surveys included questions asking for assessments of the education and training institutions and programs available in Maine. Education is identified as a very important or critical priority for the state by more respondents to the citizens survey (93%) than any other area. However, only 29% of citizen respondents believe the state is doing well or very well with its K-12 system. Among business respondents, a clearly positive assessment of the current K-12 system is given by only 16%; only 19% believe that the system is improving. These are the lowest ratings of all the areas about which business respondents were asked.

Among citizens, more than 70% agree or strongly agree that the Maine technical colleges and universities (73%) are doing a good job, but only 43% agree that Maine's K-12 system is doing well. Fifty-seven percent of respondents believe that college students do not need to leave Maine to obtain an excellent education in their chosen field.

At the same time, citizens are concerned about how accessible and affordable education and training are in Maine. Fifty-nine percent of citizen survey respondents believe that they would be able to attend courses that were affordable and of interest in their community; this figure rises to 79% when the area is expanded to "within a one-hour drive." However, only slightly more than half (51%) of the citizen survey clearly agree that there are adequate public and private training programs in Maine. The high ratings given to the University of Maine System are matched by a much lower perception of affordability; only 31% agree or strongly agree that the University of Maine System is affordable, while 26% disagree or strongly disagree. A similar percentage finds the technical colleges affordable, but a smaller percentage (16%) does not agree that the technical colleges are affordable.

**Business satisfaction with universities and colleges**

Forty percent of business survey respondents indicated a high degree of satisfaction with the University of Maine system, and a somewhat higher percentage (45%) indicate a high degree of satisfaction with the Maine technical colleges. Only 34% of businesses express a high degree of satisfaction with the K-12 education system, and 28% with continuing education.

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## Vital Communities

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Economic development naturally focuses on businesses and jobs, but there are also issues concerning the quality of life in Maine's communities and the efforts that Maine people put into improving those communities. The citizen survey contained a number of questions examining how Maine people view their communities and how they participate in the life of their communities. Eighty-one percent of respondents indicated that helping communities thrive was a very or critically important state goals, but only 23% thought the state was doing a good job at this task.

**Economic conditions of communities**

Asked about their own communities, 81% of respondents indicated their communities were either "getting by" or "getting better" economically. However, only 30% agreed or strongly agreed that their community was a "better place to live" than ten years ago; 25% did not agree that their community was better. Not surprisingly, the highest percentage of respondents indicating that their community was "thriving" 7% were in southern Maine, while the highest percentage indicating their community was really suffering was in central and northern Maine (18%).

## **Citizen community involvement**

While two-thirds agree or strongly agree that they live in a community that really cares about the future of its children, only 51% agree that “many people in my community take an interest in and involve themselves in school and civic efforts.” Sixty-seven percent clearly believed that “if something bad happened to me or my family, people from my community would offer their help and support.” However, only 40% clearly indicate they try to make time each year to involve themselves in community projects. There is a gap between perceptions of overall community involvement and individual actions.

When asked about specific areas where they involve themselves, citizen survey respondents report that:

- twenty-three percent donate an average of 11.5 hours per month to the public schools
- thirty percent donate an average of 12.7 hours per month to community organizations which help young people
- sixteen percent donate an average of 14.5 hours per month to the elderly and infirm
- twenty-one percent donate an average of 8.5 hours per month to needy and underprivileged.

Participation in community government was also examined. Maine is known as a state with high rates of voter turnout, and 76% of the citizen survey respondents indicate they vote in municipal elections. Thirty-nine percent indicate they also participate in or attend town government committee and board meetings.

## **Voter turnout**

Eighty-one percent (81%) of business survey respondents (86% on an employee-weighted basis) and 79% of citizen survey respondents report that they have donated money within the past year to a cause that will benefit their community. However, only 53% of respondents in the citizens survey indicated that they clearly agreed that businesses in their community “take an interest in and get involved in school and civic events.”

## **Business community involvement**

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# **Efficient Government**

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In an increasingly competitive world, how efficient government is can have a profound influence on how well everyone else does their job. About a third of citizen respondents (32%) rated the value of state services as good-excellent, while 15% rated them poor to terrible. Seventy-seven percent of citizen survey respondents rated streamlining government as a high or critical priority. Fewer than a quarter of the respondents (24% citizen and 22% business) give the state high marks for current efforts at streamlining, but 57% (the highest level of all areas) of the business responses said the situation is improving.

The efficiency of government regulatory processes is an issue of long-standing concern in the business community. Twenty-three percent of respondents to the business survey indicated that they had applied for a permit from state government within the past year. Of these, 39% reported that they had experienced difficulty in obtaining a permit. The average length of time to receive a permit was reported to be 10.4 weeks, but there was substantial variation in experience. The standard deviation was nearly 17 weeks.

## **Government regulations an issue**

Manufacturing companies were slightly more likely to experience difficulty than nonmanufacturing companies (42% v. 39%), and large companies more likely to report difficulty than small companies (44% v. 37%). Firms were also asked whether they had employed consulting assistance in securing their permits. Of those who reported difficulty, 30% indicated they had used such assistance and 69% indicated they did not. Of those who did not report difficulties, 34% indicated they had used consultants and 66% had not.

Respondents who sought permits were asked which state agencies were involved in providing permits. The most frequently mentioned agency among those reporting difficulties was the Department of Environmental Protection, which was mentioned by 62%. DEP was also the most frequently mentioned among those who did not report difficulty in obtaining permits (32% mentioned). Other agencies which were associated with reports of difficulty by respondents included the Board of Pesticide Control and the Lottery. The Department of Human Services, the Bureau of Health Engineering, the Fire Marshal, and the Bureau of Insurance were the most frequently cited agencies involved with those who did not report difficulties.

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## State-of-the-Art Infrastructure

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### **Transportation**

There are two elements to the state's infrastructure that are key to future economic growth. One is the broad group of traditional transportation infrastructure such as roads and bridges, and the other is the "information highway" of telecommunications. Three quarters of citizen survey respondents indicate that traditional transportation infrastructure is a critical or high priority, but a lower percentage (61%) say the same about telecommunications. Forty-two percent of citizens believe the state is doing a good job at ensuring that transportation infrastructure is adequate, but only 23% believe the state is doing a good job at insuring up-to-date telecommunications.

### **Telecommunications**

Business assessment of current efforts to improve telecommunications are not as optimistic; only a third rate current state performance good. On the other hand, nearly half (48%) say that the direction of performance in this area is improving, and 83% report that they are somewhat or very satisfied with the current telecommunications services available to them. This is one of the few questions, however, where the favorable responses were more likely to come from small companies than large companies. A higher proportion of firms with fewer than 10 employees reported themselves "very satisfied" with their telecommunications, while a larger proportion of firms with more than 50 employees reported themselves "somewhat satisfied."

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## Healthy Natural Resources

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### **Citizens want natural resources protected**

Eighty-two percent of respondents in the citizens survey indicate that protecting Maine's natural resources is a high or critically important priority. Half of the respondents indicate they agree or strongly agree that the state is doing a good job at protecting natural resources. This category is the third highest priority (by percentage of people designating it a high or critical priority) among citizen survey respondents, and also gets the highest marks from citizens in terms of current state performance (50%). Business respondents also rate current performance in this area the highest among the areas about which they were asked, with 59% saying the state is doing a good or excellent job. Thirty-four percent of business respondents also indicate that performance is improving.

Business respondents were asked several questions about their practices related to certain natural resource issues. More than 50% of all companies and three quarters of companies with 50 or more employees reported they had recycling programs in place for office waste; manufacturing companies were slightly more likely to have such programs than non-

manufacturing firms. Fifty-one percent of manufacturing companies also report they have a recycling program for the byproducts of their manufacturing processes.

However, only 29% of firms indicated that they have conducted an energy audit. Manufacturing firms were more likely to have done so than non-manufacturing firms (39% v. 28%), and large firms much more likely than small firms (73% v. 28%).

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## Methodology

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The Maine Development Foundation retained Market Decisions, Inc. to design and conduct two surveys during September and October, 1995 on behalf of the Growth Council. Each survey methodology is described below:

This random telephone survey was drawn from a statewide sample large enough to permit a maximum sampling error of +/- 3% at a confidence level of 95%. To ensure that the sample was conducted among a random sample of Maine adults, a two-stage sampling approach was used. The first stage involved identifying the sample household and the second stage involved identifying the adult within the household who would be surveyed. Although a number of techniques have been developed for identifying the adult to be sampled within the household, recent studies show that "the most recent birthday" technique is least intrusive. Using this approach, the interviewer conducts the survey with the adult living in the household who most recently celebrated his/her birthday.

### **Maine Citizen Survey**

The survey instrument was developed with the assumption that the average interview would be 15 minutes in length. It was pre-tested among both persons familiar with the study as well as those who were not. Market Decisions acquired a statewide RDD (random digit dial) sample from Survey Sampling, Inc., a provider of scientifically generated random samples. All interviewing was conducted by Market Decisions employees in their South Portland office using a computer assisted telephone interviewing (CATI) network.

In conducting the survey, Market Decisions followed a rigorous calling procedure. Contact with those residents who had been identified for the sample was attempted at least four times before replacement at varying times of days over a two-week period. This method ensures that the replacement of the sample is maintained and not biased as a result of reaching a disproportionate number of persons who spend more time in the home. All completed surveys were edited immediately following the interview, and respondents were called back if any questions were missed, or if any of the data appeared to be inconsistent. To further insure validity, the editing supervisor called back at least 15% of each interviewer's completion to verify the calls.

This random mail survey of for-profit firms was drawn from a statewide sample large enough to permit a maximum sampling error of +/- 3% at a confidence level of 95%. Responses were received from over 633 firms and they were solicited from the President, CEO, or a senior management representative.

### **Maine Business Survey**

The mail survey included a cover letter from The Honorable Angus S. King, Jr., Governor of Maine, seeking cooperation in completing the survey. The four-page survey instrument contained sixty questions. A reminder postcard was sent to non-respondents and a supplemental telephone survey of non-respondents was not required. The mail-survey was pre-tested with a small group of owners/top executives of several businesses. Market Decisions assessed the

usefulness of several databases available for generating lists of Maine businesses. Unfortunately there is no perfect list. After careful consideration of the lists' various strengths and weaknesses, a list was developed and organized by size (small, medium, and large in terms of number of employees) and by type (manufacturer/non-manufacturer). Regions of the state were a consideration for further stratification. The list excluded not-for-profit organizations.

A total of 2,550 survey packets were distributed. Included in the packet were the cover letter, a business reply envelope addressed to Market Decisions, and the questionnaire. Market Decisions logged-in and processed all surveys which were returned with meaningful information. All survey results were entered twice and verified to assure accuracy in the data entry.

The results of the survey were tabulated and cross-tabulated by important cross-breaks. The data were weighted to provide a meaningful measure for the total. (Because of the sample design, an unweighted total would be misleading since it would over-emphasize the impact of the larger companies. At the same time, the stratified design allows for meaningful analysis within each of the segments.)

<b>SUMMARY OF ISSUE RATINGS IN CITIZEN AND BUSINESS SURVEYS</b>				
	<b>Citizen Survey</b>		<b>Business Survey</b>	
	Percent Rating Very or Critically Important	Percent indicating good current performance	Percent indicating good current performance	Percent Indicating Improving Direction of Performance
Protecting natural resources	82	50	59	34
Helping businesses grow	85	29	14	43
Providing transportation infrastructure	74	42	26	29
Assuring up-to-date tele-communications	61	37	33	48
Helping people in need	76	35	Not Asked	
Improving quality of education	93	29	16	19
Helping communities thrive	81	23	Not Asked	
Streamlining government	77	24	22	57
Helping workers acquire needed skills	83	25	11	25



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## A Tear-out Page for Your Comments

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The Maine Economic Growth Council invites your comments. Please mail or fax this form to the address below.

1. General Comments:

2. The Performance Measures - Are there some that should be added? Some that aren't necessary? Do they, as a whole, help measure the long term health of the economy?

3. The Benchmarks - Are they achievable? Are there any that are unreasonable? Do you have alternative suggestions for benchmarks?

4. How to Achieve the Goals - Referencing specific goals, what are some things that could be done which would result in achieving them?

5. Who? - Referencing specific goals, which organizations or individuals should be involved in working to achieve them?

6. If you would like someone to contact you, please give your name and contact information:

**Return to:**

Maine Economic Growth Council, 45 Memorial Circle, Augusta, ME 04330 Fax: 207-622-634



## MAINE DEVELOPMENT FOUNDATION

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45 MEMORIAL CIRCLE, AUGUSTA, ME 04330 TEL: (207) 622-6345, FAX: (207) 622-6346, E-MAIL: MEGC@BIDDEFORD.COM