

## ECONOMIC INFORMATION

The information in this section was prepared by the Massachusetts State Data Center (MassSDC) at the University of Massachusetts Donahue Institute and may be relevant in evaluating the economic and financial condition and prospects of the Commonwealth of Massachusetts. The State Data Center archives much of the data about Massachusetts. The demographic information and statistical data, which have been obtained by the MassSDC from the sources indicated, do not necessarily present all factors that may have a bearing on the Commonwealth's fiscal and economic affairs.

All information is presented on a calendar-year basis unless otherwise indicated. **The section was prepared for release on November 5, 2004. Information in the text, tables, charts, and graphs was current as of October 29, 2004.** Sources of information are indicated in the text or immediately following the charts and tables. Although the Commonwealth considers the sources to be reliable, the Commonwealth has made no independent verification of the information presented herein and does not warrant its accuracy.

### Statistical Overview

| <u>Population</u> (p. A-2)                                             | <u>Massachusetts</u> | <u>United States</u> |
|------------------------------------------------------------------------|----------------------|----------------------|
| Percent Change in Population, 2002–2003                                | 0.2%                 | 1.0%                 |
| <br>                                                                   |                      |                      |
| <u>Personal Income, Consumer Prices, and Poverty</u> (p. A-7)          |                      |                      |
| Per Capita Personal Income, 2003                                       | \$39,815             | \$31,632             |
| Average Annual Pay, 2002                                               | \$44,954             | \$36,764             |
| Percent Change in CPI-U, 2002-2003*                                    | 3.8%                 | 2.3%                 |
| Percent Change in CPI-U, Sept. 2003-Sept. 2004*                        | 1.5%                 | 2.5%                 |
| Poverty Rate, 2002-2003 Average                                        | 10.1%                | 12.3%                |
| Average Weekly Manufacturing Earnings, May 2004(p)                     | \$683.49             | \$660.48             |
| Percent Change in Manufacturing Earnings, May 2003-May 2004(p)         | 1.7%                 | 3.3%                 |
| <br>                                                                   |                      |                      |
| <u>Employment</u> (p. A-15)                                            |                      |                      |
| Percent Change in Nonfarm Payroll Employment, Sept. 2003-Sept. 2004(p) | -0.0%                | 1.3%                 |
| Unemployment Rate, 2003                                                | 5.4%                 | 6.0%                 |
| Unemployment Rate, September, 2004                                     | 4.6%                 | 5.4%                 |
| <br>                                                                   |                      |                      |
| <u>Economic Base and Performance</u> (p. A-21)                         |                      |                      |
| Percent Change in Gross State Product, 2000-2001                       | -0.4%                | 0.4%                 |
| Percent Change in International Exports, 2002-2003                     | 11.7%                | 4.4%                 |
| Percent Change in Housing Permits Authorized, 2002-2003                | 8.5%                 | 5.1%                 |
| <br>                                                                   |                      |                      |
| <u>Human Resources and Infrastructure</u> (p. A-36)                    |                      |                      |
| Expenditure Per Pupil, 2002 (estimate)                                 | \$10,232             | \$7,524              |
| Percent of Adults with a Bachelor's Degree, 2003                       | 35.8%                | 26.5%                |

\* NOTE: Percent changes in the CPI-U are for the Boston area & the U.S.

Massachusetts is a densely populated state with a well-educated population, comparatively high income levels, low rates of unemployment, and a relatively diversified economy. While the total population of Massachusetts has remained fairly stable in the last twenty years, significant changes have occurred in the age distribution of the population: dramatic growth in residents between the ages of 20 and 44 since 1980 is expected to lead to a population distributed more heavily in the 65 and over age group in 2015 and 2025. Just as the working-age population has increased, income levels in Massachusetts since 1980 have grown significantly more than the national average, and a variety of measures of income show that Massachusetts residents have significantly higher amounts of annual income than the national average. These higher levels of income have been accompanied by a significantly lower poverty rate and, with the exception of the recession of the early 1990s, considerably lower unemployment rates in Massachusetts than in the United States since 1980. While economic growth in Massachusetts slowed considerably during the recession of 1990–1991, indicators such as retail sales, housing permits, construction, and employment levels suggest a strong and continued economic recovery.

The following sections provide detailed information on population characteristics, personal income, employment, economic base and performance, and human resources and infrastructure.

## **POPULATION CHARACTERISTICS**

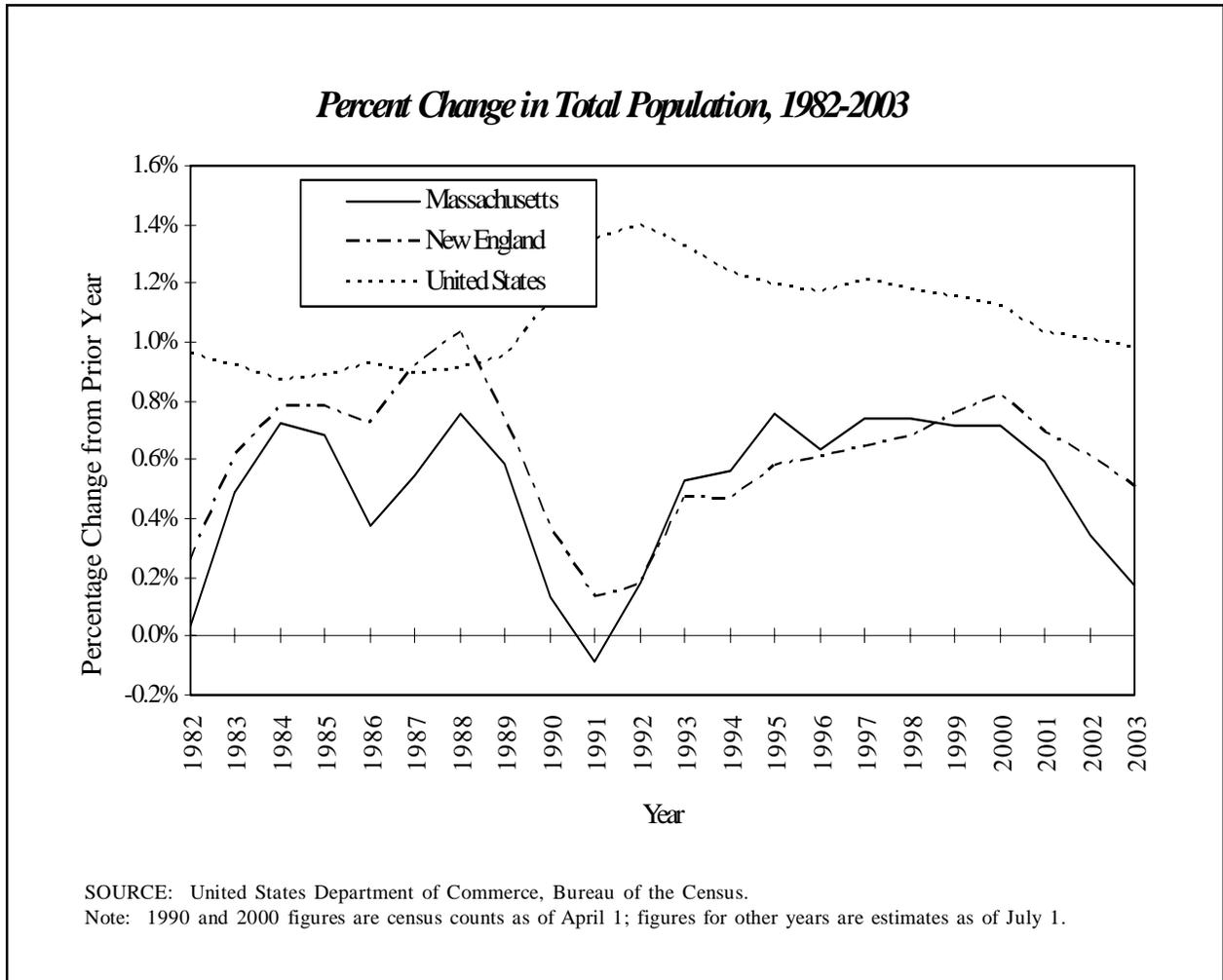
Massachusetts is a densely populated state with a comparatively large percentage of its residents living in metropolitan areas. According to the 2000 census, the population density of Massachusetts is 809.8 persons per square mile, as compared to 79.6 for the United States as a whole. Among the 50 states, only Rhode Island and New Jersey have a greater population density. Massachusetts also ranks third among the states in percentage of residents living in metropolitan areas as they were defined at the time of the Census: 96.1 percent of Massachusetts residents live in metropolitan areas, compared with a national average of 80.3 percent. According to the 2003 metropolitan definitions based on whole counties, the entire state is to be considered metropolitan except for the two island counties (99.6 percent of state residents in 2000.) Under these new definitions, which are still not widely used in New England, four states and DC are wholly metropolitan. The metropolitan areas described in this section use the 1993 definitions.

The State's population is concentrated in its eastern portion. The City of Boston is the largest city in New England, with a 2000 population of 589,141. Boston is the hub of the Boston-Worcester-Lawrence, MA-NH-ME-CT Consolidated Metropolitan Statistical Area (CMSA), which also includes all of southeastern New Hampshire, as well as towns in Maine and Connecticut, and which had a total population in 2000 of 5,819,100; over 40 percent of the total New England population. The Boston, MA-NH Primary Metropolitan Statistical Area (PMSA)—which stretches from the town of Plymouth on the south shore to Seabrook, New Hampshire on the north shore—is the largest component of that CMSA, with a total population in 2000 of 3,406,829.

The second largest component of that CMSA is the Worcester, MA-CT PMSA, with a 2000 population of 511,389. Worcester, situated approximately 40 miles west of Boston with a 2000 population of 172,648, is the second largest city in New England. Its service, trade, and manufacturing industries combine for more than 70 percent of Worcester's total employment. As a major medical and educational center, the Worcester area is home to 19 patient care facilities, including the University of Massachusetts Medical School, and twelve other colleges and universities.

The largest Metropolitan Statistical Area (MSA) within Massachusetts which is not a part of this larger CMSA is the Springfield MSA, with a 2000 population of 591,932. Springfield, the third largest city in the Commonwealth with a 2000 population of 152,082, is located in the Connecticut River Valley in Western Massachusetts and enjoys a diverse body of corporate employers, the largest of which are the Bay State Medical Center, the Massachusetts Mutual Life Insurance Company, the Milton Bradley Company, and Smith and Wesson. In addition, Springfield is home to four independent colleges.

As the following chart indicates, the percent change in population in Massachusetts since 1982 has been both lower and more erratic than the change in population for the United States as a whole. While this trend is similar to that experienced by New England, it differs considerably from the steady growth rates for the United States over the same period of time.



The following table compares the population level and percentage change in the population level of Massachusetts with those of the New England states and the United States.

**Population, 1970-2003**

(in thousands)

| Year | Massachusetts |                | New England |                | United States |                |
|------|---------------|----------------|-------------|----------------|---------------|----------------|
|      | Total         | Percent Change | Total       | Percent Change | Total         | Percent Change |
| 1970 | 5,689         |                | 11,847      |                | 203,302       |                |
| 1971 | 5,738         | 0.9%           | 11,993      | 1.2%           | 206,827       | 1.7%           |
| 1972 | 5,760         | 0.4%           | 12,082      | 0.7%           | 209,284       | 1.2%           |
| 1973 | 5,781         | 0.4%           | 12,140      | 0.5%           | 211,357       | 1.0%           |
| 1974 | 5,774         | -0.1%          | 12,146      | 0.0%           | 213,342       | 0.9%           |
| 1975 | 5,758         | -0.3%          | 12,163      | 0.1%           | 215,465       | 1.0%           |
| 1976 | 5,744         | -0.2%          | 12,192      | 0.2%           | 217,563       | 1.0%           |
| 1977 | 5,738         | -0.1%          | 12,239      | 0.4%           | 219,760       | 1.0%           |
| 1978 | 5,736         | 0.0%           | 12,283      | 0.4%           | 222,095       | 1.1%           |
| 1979 | 5,738         | 0.0%           | 12,322      | 0.3%           | 224,567       | 1.1%           |
| 1980 | 5,737         | 0.0%           | 12,348      | 0.2%           | 226,546       | 0.9%           |
| 1981 | 5,769         | 0.6%           | 12,436      | 0.7%           | 229,466       | 1.3%           |
| 1982 | 5,771         | 0.0%           | 12,468      | 0.3%           | 231,664       | 1.0%           |
| 1983 | 5,799         | 0.5%           | 12,544      | 0.6%           | 233,792       | 0.9%           |
| 1984 | 5,841         | 0.7%           | 12,642      | 0.8%           | 235,825       | 0.9%           |
| 1985 | 5,881         | 0.7%           | 12,741      | 0.8%           | 237,924       | 0.9%           |
| 1986 | 5,903         | 0.4%           | 12,833      | 0.7%           | 240,133       | 0.9%           |
| 1987 | 5,935         | 0.5%           | 12,951      | 0.9%           | 242,289       | 0.9%           |
| 1988 | 5,980         | 0.8%           | 13,085      | 1.0%           | 244,499       | 0.9%           |
| 1989 | 6,015         | 0.6%           | 13,182      | 0.7%           | 246,819       | 0.9%           |
| 1990 | 6,023         | 0.1%           | 13,230      | 0.4%           | 249,623       | 1.1%           |
| 1991 | 6,018         | -0.1%          | 13,248      | 0.1%           | 252,981       | 1.3%           |
| 1992 | 6,029         | 0.2%           | 13,271      | 0.2%           | 256,514       | 1.4%           |
| 1993 | 6,061         | 0.5%           | 13,334      | 0.5%           | 259,919       | 1.3%           |
| 1994 | 6,095         | 0.6%           | 13,396      | 0.5%           | 263,126       | 1.2%           |
| 1995 | 6,141         | 0.8%           | 13,473      | 0.6%           | 266,278       | 1.2%           |
| 1996 | 6,180         | 0.6%           | 13,555      | 0.6%           | 269,394       | 1.2%           |
| 1997 | 6,226         | 0.7%           | 13,642      | 0.6%           | 272,647       | 1.2%           |
| 1998 | 6,272         | 0.7%           | 13,734      | 0.7%           | 275,854       | 1.2%           |
| 1999 | 6,317         | 0.7%           | 13,838      | 0.8%           | 279,040       | 1.2%           |
| 2000 | 6,362         | 0.7%           | 13,952      | 0.8%           | 282,178       | 1.1%           |
| 2001 | 6,400         | 0.6%           | 14,048      | 0.7%           | 285,094       | 1.0%           |
| 2002 | 6,422         | 0.3%           | 14,134      | 0.6%           | 287,974       | 1.0%           |
| 2003 | 6,433         | 0.2%           | 14,205      | 0.5%           | 290,810       | 1.0%           |

SOURCE: United States Department of Commerce, Bureau of the Census.  
 1970 and 1980 figures are census counts as of April 1; figures for  
 all other years are estimates as of July 1.

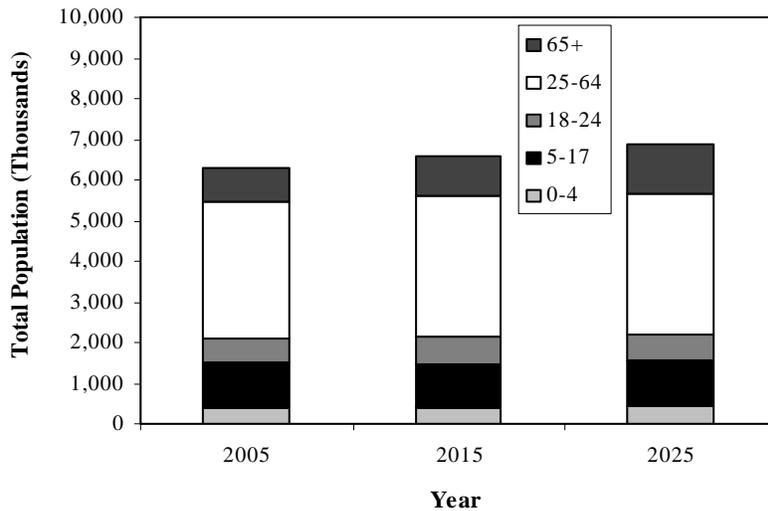
The next fifteen years are expected to bring about a considerable change in the age distribution of the Massachusetts population. As the following table and chart show, the population of Massachusetts is expected to be distributed more heavily in the 65 and over age groups in 2015 and in 2025. The chart and table show the projected population by age for Massachusetts for 2005 through 2025.

**Projected Massachusetts Population by Age Group, 2005-2025**  
(in thousands)

| <i>Year</i> | <i>0-4</i> | <i>5-17</i> | <i>18-24</i> | <i>25-64</i> | <i>65+</i> |
|-------------|------------|-------------|--------------|--------------|------------|
| <b>2005</b> | 382        | 1,106       | 633          | 3,362        | 827        |
| <b>2015</b> | 411        | 1,053       | 681          | 3,464        | 965        |
| <b>2025</b> | 439        | 1,128       | 650          | 3,433        | 1,252      |

SOURCE: United States Department of Commerce, Bureau of the Census.  
Note: Projections released in 1996; new projections expected in 2005.

**Projected Massachusetts Population by Age Group, 2005-2025**



SOURCE: United States Department of Commerce, Bureau of the Census.  
Note: Projections released in 1996; new projections expected in 2005.

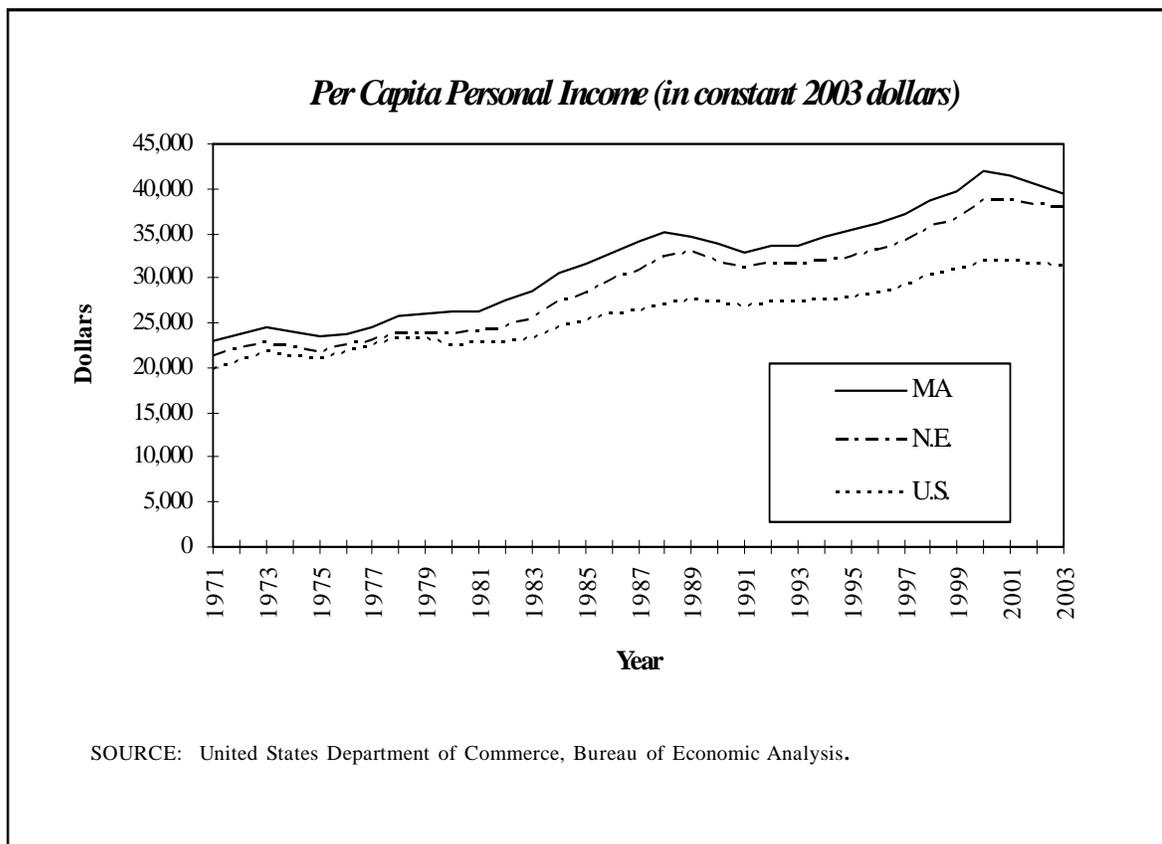
*Massachusetts Population by County  
1990 and 2000 Census*

| <b>County</b>        | <b>1990</b>      | <b>2000</b>      | <b>% Change<br/>1990-00</b> |
|----------------------|------------------|------------------|-----------------------------|
| Barnstable           | 186,605          | 222,230          | 19.1%                       |
| Berkshire            | 139,352          | 134,953          | -3.2%                       |
| Bristol              | 506,325          | 534,678          | 5.6%                        |
| Dukes                | 11,639           | 14,987           | 28.8%                       |
| Essex                | 670,080          | 723,419          | 8.0%                        |
| Franklin             | 70,092           | 71,535           | 2.1%                        |
| Hampden              | 456,310          | 456,228          | 0.0%                        |
| Hampshire            | 146,568          | 152,251          | 3.9%                        |
| Middlesex            | 1,398,468        | 1,465,396        | 4.8%                        |
| Nantucket            | 6,012            | 9,520            | 58.3%                       |
| Norfolk              | 616,087          | 650,308          | 5.6%                        |
| Plymouth             | 435,276          | 472,822          | 8.6%                        |
| Suffolk              | 663,906          | 689,807          | 3.9%                        |
| Worcester            | 709,705          | 750,963          | 5.8%                        |
| <b>Massachusetts</b> | <b>6,016,425</b> | <b>6,349,097</b> | <b>5.5%</b>                 |

SOURCE: United Department of Commerce, Bureau of the Census.

## PERSONAL INCOME, CONSUMER PRICES, AND POVERTY

**Personal Income.** Since at least 1929, real and nominal per capita income levels have been consistently higher in Massachusetts than in the United States. After growing at an annual rate higher than that for the United States between 1982 and 1988, real income levels in Massachusetts declined between 1989 and 1991. Real per capita income levels in Massachusetts increased faster than the national average between 1994 and 1997. In 2000 Massachusetts had its highest per capita income growth in 16 years, exceeding the national growth rate by 1.6 percentage points. In 2001 and 2002, nominal and real income in both Massachusetts and the United States declined, while in 2003 the state showed a slight decline while the nation was essentially flat. Even with slight declines in income, both real and nominal income levels in Massachusetts remain well above the national average. Again in 2003 as in the past several years, only two states had higher levels of per capita personal income. The following chart illustrates real per capita personal income in Massachusetts, New England, and the United States since 1971.



The following table compares per capita personal income in Massachusetts, New England, and the United States for the period 1969-2003.

*Per Capita Personal Income, 1969-2003*

| Year | Nominal Income<br>(in current dollars) |        |        | Real Income<br>(in 2003 dollars) |        |        | Percent Change<br>in Real Income |       |       |
|------|----------------------------------------|--------|--------|----------------------------------|--------|--------|----------------------------------|-------|-------|
|      | MA                                     | N.E.   | U.S.   | MA                               | N.E.   | U.S.   | MA                               | N.E.  | U.S.  |
| 1969 | 4,201                                  | 4,185  | 3,836  | 22,661                           | 20,982 | 19,232 |                                  |       |       |
| 1970 | 4,483                                  | 4,445  | 4,085  | 22,738                           | 21,079 | 19,372 | 0.3%                             | 0.5%  | 0.7%  |
| 1971 | 4,752                                  | 4,680  | 4,342  | 22,960                           | 21,262 | 19,727 | 1.0%                             | 0.9%  | 1.8%  |
| 1972 | 5,109                                  | 5,029  | 4,717  | 23,838                           | 22,137 | 20,764 | 3.8%                             | 4.1%  | 5.3%  |
| 1973 | 5,547                                  | 5,481  | 5,231  | 24,428                           | 22,714 | 21,678 | 2.5%                             | 2.6%  | 4.4%  |
| 1974 | 6,016                                  | 5,958  | 5,707  | 23,958                           | 22,237 | 21,300 | -1.9%                            | -2.1% | -1.7% |
| 1975 | 6,459                                  | 6,381  | 6,172  | 23,602                           | 21,823 | 21,109 | -1.5%                            | -1.9% | -0.9% |
| 1976 | 6,998                                  | 6,959  | 6,754  | 23,782                           | 22,504 | 21,841 | 0.8%                             | 3.1%  | 3.5%  |
| 1977 | 7,620                                  | 7,593  | 7,405  | 24,623                           | 23,055 | 22,484 | 3.5%                             | 2.4%  | 2.9%  |
| 1978 | 8,430                                  | 8,413  | 8,245  | 25,887                           | 23,742 | 23,268 | 5.1%                             | 3.0%  | 3.5%  |
| 1979 | 9,385                                  | 9,392  | 9,146  | 26,142                           | 23,803 | 23,180 | 1.0%                             | 0.3%  | -0.4% |
| 1980 | 10,602                                 | 10,629 | 10,114 | 26,171                           | 23,735 | 22,585 | 0.1%                             | -0.3% | -2.6% |
| 1981 | 11,798                                 | 11,846 | 11,246 | 26,205                           | 23,979 | 22,764 | 0.1%                             | 1.0%  | 0.8%  |
| 1982 | 12,941                                 | 12,871 | 11,935 | 27,630                           | 24,542 | 22,757 | 5.4%                             | 2.3%  | 0.0%  |
| 1983 | 14,009                                 | 13,829 | 12,618 | 28,622                           | 25,548 | 23,310 | 3.6%                             | 4.1%  | 2.4%  |
| 1984 | 15,723                                 | 15,422 | 13,891 | 30,620                           | 27,311 | 24,600 | 7.0%                             | 6.9%  | 5.5%  |
| 1985 | 16,910                                 | 16,546 | 14,758 | 31,517                           | 28,294 | 25,237 | 2.9%                             | 3.6%  | 2.6%  |
| 1986 | 18,148                                 | 17,722 | 15,442 | 32,980                           | 29,752 | 25,925 | 4.6%                             | 5.2%  | 2.7%  |
| 1987 | 19,575                                 | 19,119 | 16,240 | 34,085                           | 30,967 | 26,304 | 3.3%                             | 4.1%  | 1.5%  |
| 1988 | 21,341                                 | 20,811 | 17,331 | 35,036                           | 32,369 | 26,956 | 2.8%                             | 4.5%  | 2.5%  |
| 1989 | 22,342                                 | 22,083 | 18,520 | 34,696                           | 32,768 | 27,481 | -1.0%                            | 1.2%  | 1.9%  |
| 1990 | 23,043                                 | 22,712 | 19,477 | 33,826                           | 31,974 | 27,420 | -2.5%                            | -2.4% | -0.2% |
| 1991 | 23,432                                 | 22,969 | 19,892 | 32,950                           | 31,030 | 26,873 | -2.6%                            | -3.0% | -2.0% |
| 1992 | 24,538                                 | 24,172 | 20,854 | 33,670                           | 31,701 | 27,350 | 2.2%                             | 2.2%  | 1.8%  |
| 1993 | 25,176                                 | 24,752 | 21,346 | 33,573                           | 31,518 | 27,181 | -0.3%                            | -0.6% | -0.6% |
| 1994 | 26,303                                 | 25,687 | 22,172 | 34,624                           | 31,892 | 27,528 | 3.1%                             | 1.2%  | 1.3%  |
| 1995 | 27,457                                 | 26,832 | 23,076 | 35,299                           | 32,396 | 27,861 | 2.0%                             | 1.6%  | 1.2%  |
| 1996 | 28,933                                 | 28,194 | 24,175 | 36,126                           | 33,064 | 28,351 | 2.3%                             | 2.1%  | 1.8%  |
| 1997 | 30,498                                 | 29,687 | 25,334 | 37,037                           | 34,034 | 29,043 | 2.5%                             | 2.9%  | 2.4%  |
| 1998 | 32,524                                 | 31,677 | 26,883 | 38,623                           | 35,758 | 30,346 | 4.3%                             | 5.1%  | 4.5%  |
| 1999 | 34,227                                 | 33,126 | 27,939 | 39,653                           | 36,586 | 30,857 | 2.7%                             | 2.3%  | 1.7%  |
| 2000 | 37,756                                 | 36,121 | 29,847 | 41,931                           | 38,596 | 31,892 | 5.7%                             | 5.5%  | 3.4%  |
| 2001 | 38,944                                 | 37,328 | 30,580 | 41,466                           | 38,782 | 31,771 | -1.1%                            | 0.5%  | -0.4% |
| 2002 | 38,913                                 | 37,420 | 30,795 | 40,378                           | 38,273 | 31,497 | -2.6%                            | -1.3% | -0.9% |
| 2003 | 39,408                                 | 38,018 | 31,459 | 39,408                           | 38,018 | 31,459 | -2.4%                            | -0.7% | -0.1% |

SOURCE: United States Department of Commerce, Bureau of Economic Analysis.

Notes: Estimated population as of July 1. Massachusetts real income is calculated using Boston CPI-U data.

New England and United States real incomes are calculated using national CPI-U data.

*Annual pay in nominal dollars* has grown steadily in Massachusetts over the past decade. Average annual pay is computed by dividing the total annual payroll of employees covered by Unemployment Insurance programs by the average monthly number of employees. Data are reported by employers covered under the Unemployment Insurance programs. While levels of annual pay were nearly equal in Massachusetts and the United States in 1984, average annual pay levels in Massachusetts have grown more rapidly than the national average since that time. The level of annual pay in Massachusetts in 2002 was 22 percent higher than the national average: \$44,954 compared to \$36,764.

*Wage and Salary Disbursements.* Wage and Salary Disbursements by Place of Work is a component of personal income and measures monetary disbursements to employees. This includes compensation of corporate officers, commissions, tips, bonuses, and receipts in-kind. Although the data is recorded on a place-of-work basis, it is then adjusted to a place-of-residence basis so that the personal income of the recipients whose place of residence differs from their place of work will be correctly assigned to their state of residence. The table below details Wage and Salary Disbursements since 1990. Between 1991 and 2000, Massachusetts share of the overall New England total steadily increase to 51.3 percent, but by 2003 its share had dropped back to slightly below 50 percent.

### *Annual Wage and Salary Disbursements, 1990-2003*

*(in millions of dollars)*

| <i>Year</i> | <i>U.S.</i>  | <i>N.E.</i> | <i>MA</i> | <i>MA as a pct.<br/>of N.E.</i> |
|-------------|--------------|-------------|-----------|---------------------------------|
| <b>1990</b> | \$ 2,743,016 | \$171,448   | \$83,129  | 48.5%                           |
| <b>1991</b> | \$ 2,811,076 | \$170,333   | \$82,311  | 48.3%                           |
| <b>1992</b> | \$ 2,972,287 | \$177,810   | \$86,014  | 48.4%                           |
| <b>1993</b> | \$ 3,076,276 | \$183,236   | \$89,047  | 48.6%                           |
| <b>1994</b> | \$ 3,227,483 | \$190,661   | \$93,164  | 48.9%                           |
| <b>1995</b> | \$ 3,415,368 | \$201,946   | \$99,194  | 49.1%                           |
| <b>1996</b> | \$ 3,615,699 | \$213,667   | \$105,573 | 49.4%                           |
| <b>1997</b> | \$ 3,874,011 | \$230,032   | \$113,579 | 49.4%                           |
| <b>1998</b> | \$ 4,179,922 | \$247,851   | \$123,054 | 49.6%                           |
| <b>1999</b> | \$ 4,463,650 | \$266,554   | \$134,045 | 50.3%                           |
| <b>2000</b> | \$ 4,825,906 | \$293,889   | \$150,842 | 51.3%                           |
| <b>2001</b> | \$ 4,939,453 | \$300,663   | \$153,110 | 50.9%                           |
| <b>2002</b> | \$ 4,970,270 | \$298,009   | \$149,894 | 50.3%                           |
| <b>2003</b> | \$ 5,095,173 | \$303,861   | \$151,633 | 49.9%                           |

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

*Consumer Prices.* Higher income levels in Massachusetts relative to the rest of the United States are offset to some extent by the higher cost of living in Massachusetts. The following table presents consumer price trends for the Boston metropolitan area and the United States for the period between 1970 and 2003. Data reflect changes to methodology made by the Bureau of Labor Statistics in January 1998 and indicate the Consumer Price Index for All Urban Consumers (CPI-U) and the percentage change in the Consumer Price Index for All Urban Consumers from the previous year. In 2003, the CPI-U for Boston increased 3.8 percent compared to an increase of 2.3 percent for the United States as a whole. However, the latest available data for September 2004 show that the CPI-U for the Boston metropolitan area grew at a rate of only 1.5 percent from September 2003 compared with 2.5 percent for the U.S.

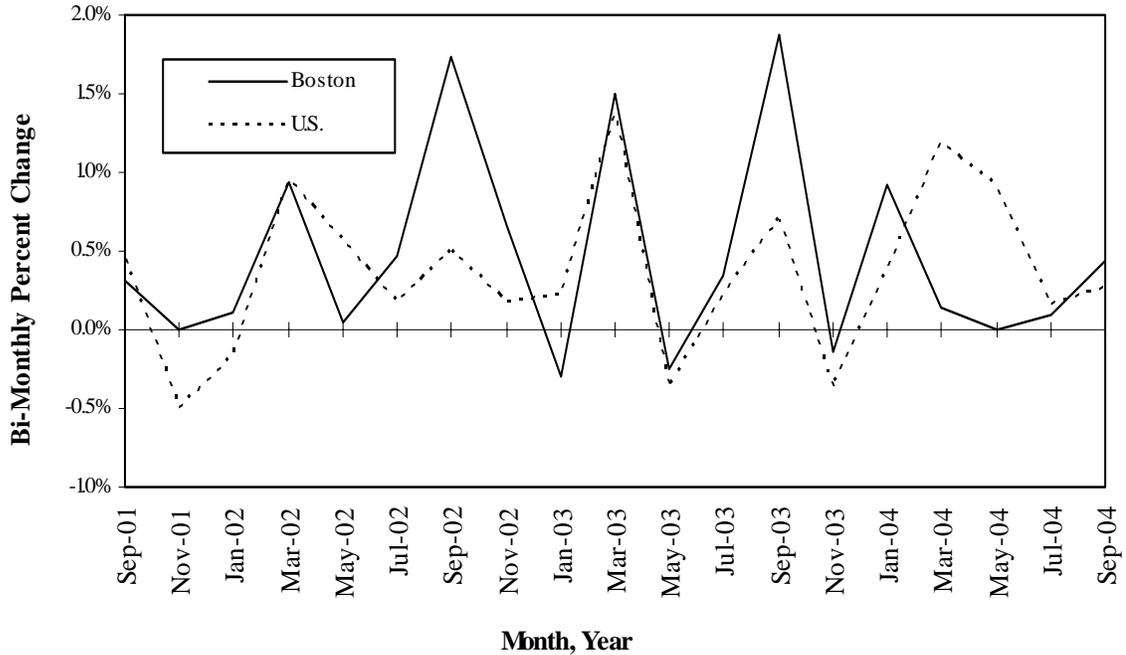
**Consumer Price Index for all Urban Consumers (CPI-U), 1970-2003**

(not seasonally adjusted, (1982-1984=100))

| <i>Year</i>   | <i>Boston Metro Area</i> |                   | <i>United States</i> |                    |
|---------------|--------------------------|-------------------|----------------------|--------------------|
|               | <i>CPI-U</i>             | <i>Pct.Change</i> | <i>CPI-U</i>         | <i>Pct. Change</i> |
| <b>1970</b>   | 40.2                     |                   | 38.8                 |                    |
| <b>1971</b>   | 42.2                     | 5.0%              | 40.5                 | 4.4%               |
| <b>1972</b>   | 43.7                     | 3.6%              | 41.8                 | 3.2%               |
| <b>1973</b>   | 46.3                     | 5.9%              | 44.4                 | 6.2%               |
| <b>1974</b>   | 51.2                     | 10.6%             | 49.3                 | 11.0%              |
| <b>1975</b>   | 55.8                     | 9.0%              | 53.8                 | 9.1%               |
| <b>1976</b>   | 60.0                     | 7.5%              | 56.9                 | 5.8%               |
| <b>1977</b>   | 63.1                     | 5.2%              | 60.6                 | 6.5%               |
| <b>1978</b>   | 66.4                     | 5.2%              | 65.2                 | 7.6%               |
| <b>1979</b>   | 73.2                     | 10.2%             | 72.6                 | 11.3%              |
| <b>1980</b>   | 82.6                     | 12.8%             | 82.4                 | 13.5%              |
| <b>1981</b>   | 91.8                     | 11.1%             | 90.9                 | 10.3%              |
| <b>1982</b>   | 95.5                     | 4.0%              | 96.5                 | 6.2%               |
| <b>1983</b>   | 99.8                     | 4.5%              | 99.6                 | 3.2%               |
| <b>1984</b>   | 104.7                    | 4.9%              | 103.9                | 4.3%               |
| <b>1985</b>   | 109.4                    | 4.5%              | 107.6                | 3.6%               |
| <b>1986</b>   | 112.2                    | 2.6%              | 109.6                | 1.9%               |
| <b>1987</b>   | 117.1                    | 4.4%              | 113.6                | 3.6%               |
| <b>1988</b>   | 124.2                    | 6.1%              | 118.3                | 4.1%               |
| <b>1989</b>   | 131.3                    | 5.7%              | 124.0                | 4.8%               |
| <b>1990</b>   | 138.9                    | 5.8%              | 130.7                | 5.4%               |
| <b>1991</b>   | 145.0                    | 4.4%              | 136.2                | 4.2%               |
| <b>1992</b>   | 148.6                    | 2.5%              | 140.3                | 3.0%               |
| <b>1993</b>   | 152.9                    | 2.9%              | 144.5                | 3.0%               |
| <b>1994</b>   | 154.9                    | 1.3%              | 148.2                | 2.6%               |
| <b>1995</b>   | 158.6                    | 2.4%              | 152.4                | 2.8%               |
| <b>1996</b>   | 163.3                    | 3.0%              | 156.9                | 3.0%               |
| <b>1997</b>   | 167.9                    | 2.8%              | 160.5                | 2.3%               |
| <b>1998</b>   | 171.7                    | 2.3%              | 163.0                | 1.6%               |
| <b>1999</b>   | 176.0                    | 2.5%              | 166.6                | 2.2%               |
| <b>2000</b>   | 183.6                    | 4.3%              | 172.2                | 3.4%               |
| <b>2001</b>   | 191.5                    | 4.3%              | 177.1                | 2.8%               |
| <b>2002</b>   | 196.5                    | 2.6%              | 179.9                | 1.6%               |
| <b>2003</b>   | 203.9                    | 3.8%              | 184.0                | 2.3%               |
| <b>Sep-03</b> | 206.8                    |                   | 185.2                |                    |
| <b>Sep-04</b> | 209.8                    | 1.5%              | 189.9                | 2.5%               |

SOURCE: United States Department of Labor, Bureau of Labor Statistics.

***Bi-Monthly Percent Change in Consumer Price Index for all Urban Consumers, September 2001 - September 2004***



SOURCE: United States Department of Labor, Bureau of Labor Statistics.

***Consumer Confidence, Present Situation, and Future Expectations.*** These three measures offer multiple insights into consumer attitudes. The U.S. and New England measures are compiled from a national monthly survey of 5,000 households and are published by The Conference Board, Inc. The measures for Boston are conducted in a similar manner and published by the New England Economic Project (NEEP), based on the polling of 500 adult residents of Massachusetts. “Consumer confidence” is a measure of consumer optimism regarding overall economic conditions. “Future expectations” focuses on consumers’ attitudes regarding business conditions, employment, and employment income for the coming six months. “Present situation” measures the same attitudes as future expectations but at the time of the survey. Although the U.S. and the New England measures are compiled by a different source than the Boston measures, according to the Federal Reserve Bank of Boston the numbers are generally comparable. The following table and chart detail these three measures since 2000.

**Quarterly measures of Consumer Confidence, Present Situation, and Future Expectations for Massachusetts, New England, and the U.S., January 2000 - July 2004**

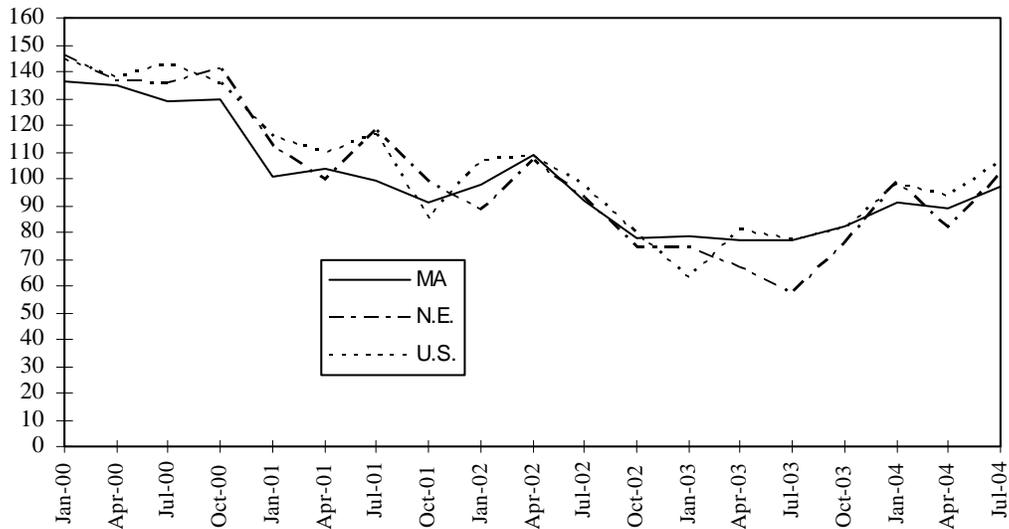
*(Not Seasonally Adjusted, except United States (1985=100))*

|        | Consumer Confidence |       |       | Present Situation |       |       | Future Expectations |       |       |
|--------|---------------------|-------|-------|-------------------|-------|-------|---------------------|-------|-------|
|        | MA                  | N.E.  | U.S.  | MA                | N.E.  | U.S.  | MA                  | N.E.  | U.S.  |
| Jan-00 | 136.0               | 145.9 | 144.7 | 151.0             | 193.1 | 183.1 | 125.0               | 114.5 | 119.1 |
| Apr-00 | 135.0               | 136.5 | 137.7 | 155.0             | 195.7 | 179.8 | 122.0               | 97.0  | 109.7 |
| Jul-00 | 129.0               | 135.4 | 143.0 | 156.0             | 196.9 | 186.8 | 111.0               | 94.4  | 113.7 |
| Oct-00 | 130.0               | 140.7 | 135.8 | 157.0             | 195.5 | 176.8 | 111.0               | 104.1 | 108.4 |
| Jan-01 | 101.0               | 111.9 | 115.7 | 139.0             | 173.9 | 170.4 | 76.0                | 70.5  | 79.3  |
| Apr-01 | 104.0               | 99.5  | 109.9 | 124.0             | 161.7 | 156.0 | 91.0                | 58.0  | 79.1  |
| Jul-01 | 99.0                | 117.5 | 116.3 | 108.0             | 170.8 | 151.3 | 93.0                | 82.0  | 92.9  |
| Oct-01 | 91.0                | 98.6  | 85.3  | 94.0              | 105.6 | 107.2 | 90.0                | 64.0  | 70.7  |
| Jan-02 | 97.8                | 88.5  | 107.0 | 98.1              | 85.5  | 72.0  | 97.6                | 90.5  | 130.0 |
| Apr-02 | 109.0               | 106.7 | 108.5 | 84.0              | 115.5 | 106.8 | 125.0               | 100.8 | 109.6 |
| Jul-02 | 92.0                | 92.4  | 97.4  | 68.0              | 96.3  | 99.4  | 108.0               | 89.9  | 96.1  |
| Oct-02 | 78.0                | 74.2  | 79.6  | 48.0              | 70.8  | 77.2  | 97.0                | 76.5  | 81.1  |
| Jan-03 | 78.8                | 74.4  | 63.0  | 75.3              | 63.9  | 28.0  | 81.1                | 81.5  | 86.0  |
| Apr-03 | 77.0                | 66.4  | 81.0  | 31.0              | 52    | 75.2  | 108.0               | 76.0  | 84.8  |
| Jul-03 | 77.0                | 56.8  | 77.0  | 41.0              | 42.8  | 63.0  | 101.0               | 66.2  | 86.3  |
| Oct-03 | 82.0                | 75.5  | 81.7  | 36.0              | 57.4  | 67.0  | 112.0               | 87.6  | 91.5  |
| Jan-04 | 91.0                | 98.2  | 97.7  | 48.0              | 86.5  | 86.1  | 119.0               | 106.1 | 105.3 |
| Apr-04 | 89.0                | 81.2  | 93.0  | 53.0              | 74.8  | 90.4  | 113.0               | 85.5  | 94.8  |
| Jul-04 | 97.0                | 101.4 | 105.7 | 66.0              | 102.9 | 106.4 | 119.0               | 100.3 | 105.3 |

SOURCES: The Conference Board, Inc. (for U.S. and N.E. measures), New England Economic Project (for MA measure).

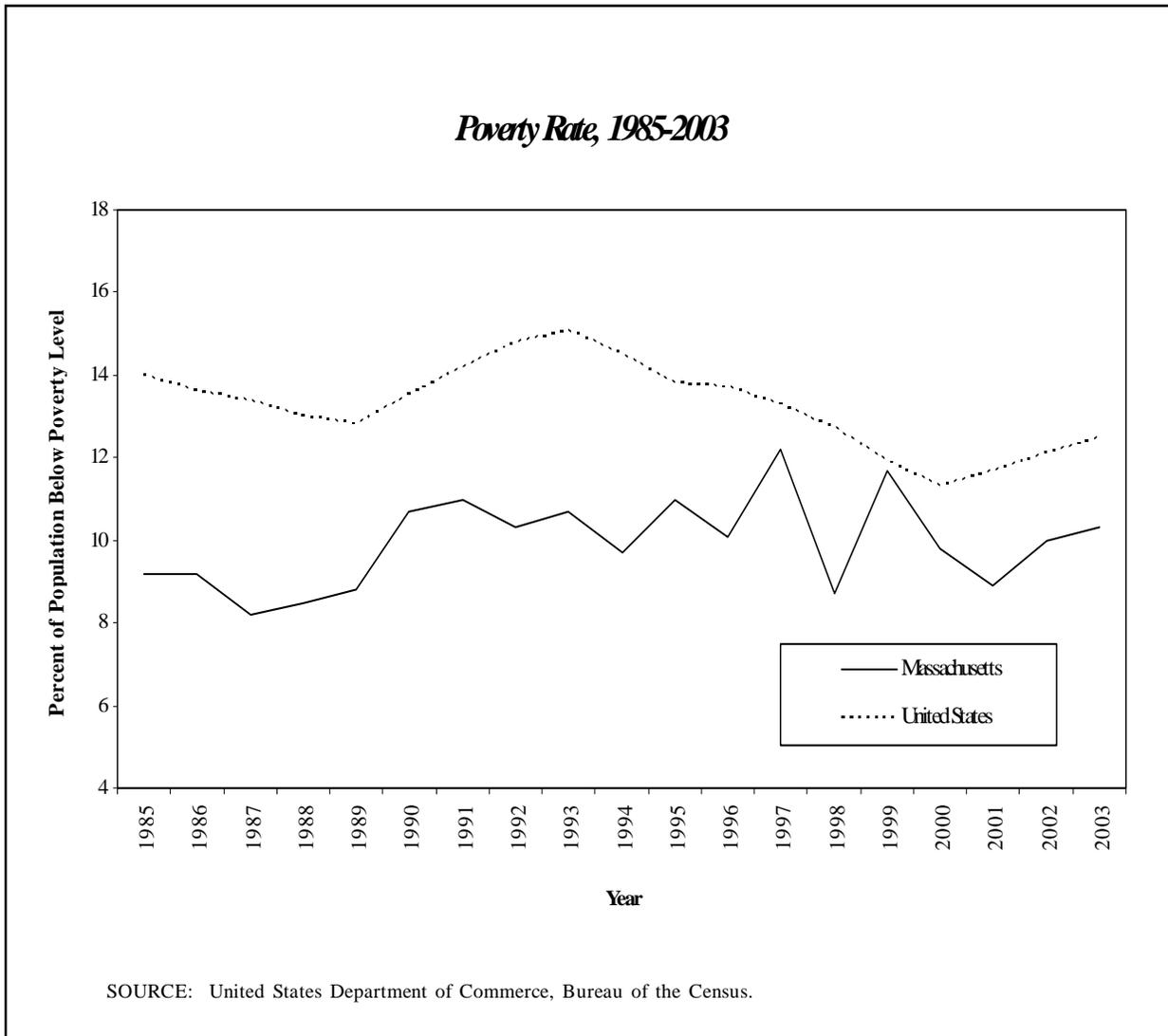
**Consumer Confidence for Massachusetts, New England, and the U.S. January 2000 – July 2004**

*(Not Seasonally Adjusted, except United States (1985=100))*



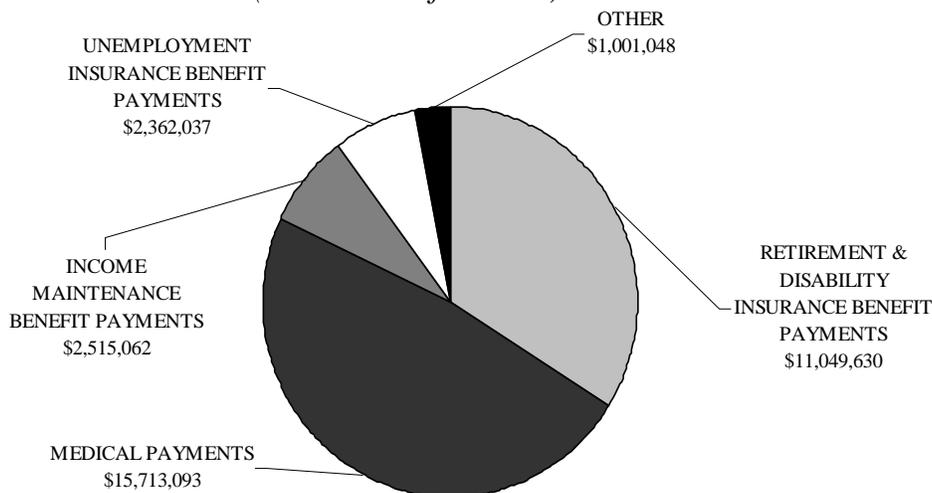
SOURCES: The Conference Board, Inc. (for U.S. and N.E. measures), New England Economic Project (for MA measure).

**Poverty.** The Massachusetts poverty rate remains below the national average. Since 1980, the percentage of the Massachusetts population below the poverty line has varied between 7.7 percent and 12.2 percent. During the same time, the national poverty rate varied between 11.3 percent and 15.1 percent. In 2003, the poverty rate in Massachusetts increased slightly to 10.3 percent while the poverty rate in the United States rose a similar amount to 12.5 percent. Since 1980, the ratio of the Massachusetts rate of poverty to the United States rate of poverty has varied from a low of 0.51 in 1983 to 0.99 in 1999. These official poverty statistics are not adjusted for regional differences in the cost of living. The following chart illustrates the lower poverty rates in Massachusetts (1985 - 2003) compared with the national average during similar periods. Poverty estimates for states are not as reliable as national estimates. One should use caution when comparing poverty rate estimates across states, or poverty rates for the same state across years, because their variability is high.



**Transfer Payments.** Transfer payment income is payment to individuals from all levels of government and from businesses, for which no current services are performed, including payments to nonprofit institutions serving individuals. These payments accounted for more than 13 percent of total personal income in Massachusetts in 2003. The chart below does not include transfer payments from business or payments to non-profit organizations. Total transfer payments to individuals in Massachusetts totaled 33.9 billion dollars for 2003.

***Transfer Payments from Governments to  
Individuals in 2003 – Massachusetts (from  
Annual State Personal Income Estimates)***  
*(thousands of dollars)*



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

NOTE: The category "other" includes payments for: veterans benefit payments, federal education and training assistance payments, and other payments to individuals.

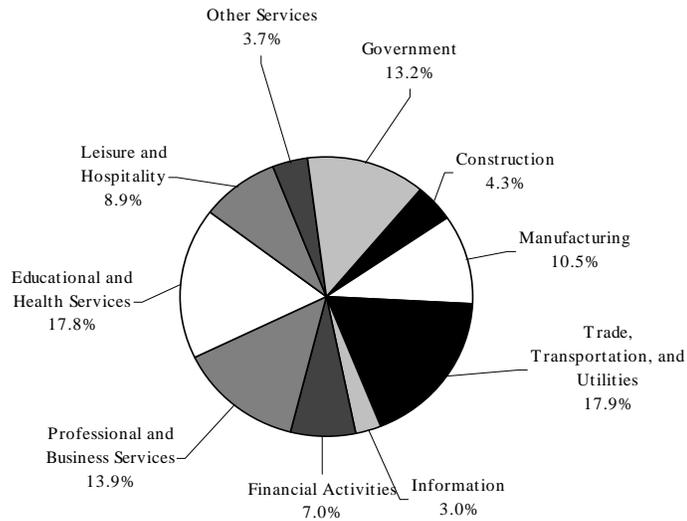
## EMPLOYMENT

*Employment by Industry.* The charts on the following page show the distribution of non-agricultural payroll employment by industry in Massachusetts for 2002 and 2003 on the new North American Industry Classification System (NAICS) basis, and the corresponding shares for 1990 and 1991, the earliest years for which NAICS data is available. Subsequent versions of this Economic Information section will discuss these new sectors in more detail. Like many industrial states, Massachusetts has seen a steady decline of its manufacturing jobs base over the last two decades, both absolutely and as a share of total employment. Several NAICS service sectors have grown to take the place of manufacturing in driving the Massachusetts economy.

Total non-agricultural employment in Massachusetts declined 2.4 percent in 2002 and another 2.0 percent in 2003 but only 0.7 percent in the first nine months of 2004. In the first nine months of 2004, manufacturing employment (on the seasonally adjusted NAICS basis) declined 1.4 percent from the same period in 2003, a much smaller decline than the annual declines in the previous three years (5.0%, 10.3%, and 6.2% in 2001, 2002, & 2003 respectively.)

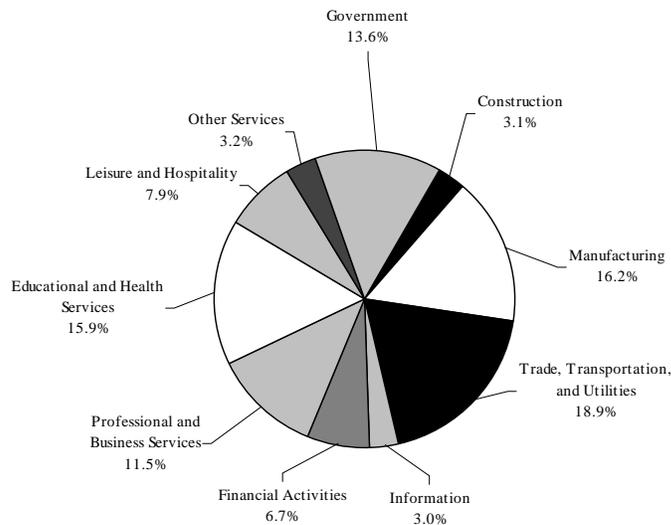
**Massachusetts Non-Farm Payroll Employment  
(NAICS Industry basis)**

**NAICS Super-Sectors: 2002-2003 Average Share**



SOURCE: MA Division of Unemployment Assistance.

**NAICS Super-Sectors: 1990-1991 Average Share**



SOURCE: MA Division of Unemployment Assistance.

***Largest Employers in Massachusetts.*** The following table lists the twenty-five largest employers in Massachusetts based upon employment data for June 2003. The list is unchanged from the previous list based on June 2002.

***Twenty-five Largest Massachusetts Employers in June 2003***  
***(Listed Alphabetically)***

---

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Baystate Medical Center               | May Department Stores             |
| Beth Israel Deaconess Hospital        | Raytheon Company                  |
| Boston University                     | Sears, Roebuck & Company          |
| Brigham & Women's Hospital            | Shaw's Supermarkets               |
| The Children's Hospital Corporation   | Southcoast Hospitals Group        |
| Demoulas Supermarkets                 | S&S Credit Corporation            |
| E.M.C. Corporation                    | State Street Bank & Trust Company |
| Fleet National Bank                   | Tufts University                  |
| Friendly Ice Cream Corporation        | UMass Memorial Medical Center     |
| General Hospital Corporation          | United Parcel Service             |
| Harvard University                    | Verizon New England               |
| Home Depot USA                        | Wal-Mart Associates               |
| Massachusetts Institute of Technology |                                   |

SOURCE: MA Division of Unemployment Assistance.

**Unemployment.** The economic recession of the early 1990s caused unemployment rates in Massachusetts to rise significantly above the national average, as much as 2.3 points above in 1991. However, since 1994 the unemployment rate in Massachusetts has been consistently below the national average. The following table compares the annual civilian labor force, the number unemployed, and unemployment rates of Massachusetts, the New England states, and the United States between 1970 and 2003.

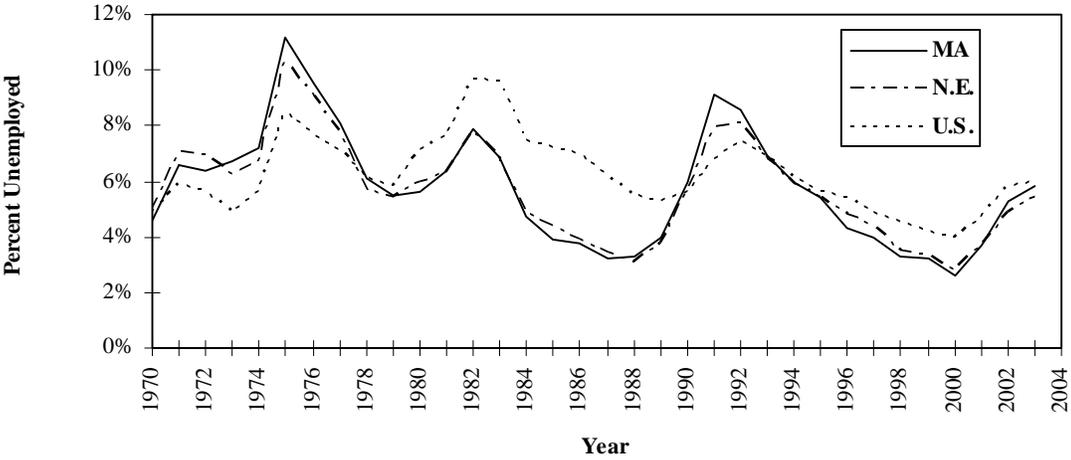
***Annual Average Civilian Labor Force and Unemployment, 1970-2003***

*(in thousands)*

| Year | Civilian Labor Force |       |         | Unemployed |      |        | Unemployment Rate |       |      | MA Rate as   |
|------|----------------------|-------|---------|------------|------|--------|-------------------|-------|------|--------------|
|      | MA                   | N.E.  | U.S.    | MA         | N.E. | U.S.   | MA                | N.E.  | U.S. | Pct. of U.S. |
| 1970 | 2,458                | 5,129 | 82,771  | 114        | 256  | 4,093  | 4.6%              | 5.0%  | 4.9% | 93.9%        |
| 1971 | 2,447                | 5,157 | 84,382  | 161        | 364  | 5,016  | 6.6%              | 7.1%  | 5.9% | 111.9%       |
| 1972 | 2,475                | 5,261 | 87,034  | 160        | 363  | 4,882  | 6.4%              | 6.9%  | 5.6% | 114.3%       |
| 1973 | 2,549                | 5,387 | 89,429  | 171        | 336  | 4,365  | 6.7%              | 6.2%  | 4.9% | 136.7%       |
| 1974 | 2,622                | 5,512 | 91,949  | 189        | 369  | 5,156  | 7.2%              | 6.7%  | 5.6% | 128.6%       |
| 1975 | 2,700                | 5,634 | 93,775  | 306        | 581  | 7,929  | 11.2%             | 10.3% | 8.5% | 131.8%       |
| 1976 | 2,727                | 5,717 | 96,158  | 259        | 519  | 7,406  | 9.5%              | 9.1%  | 7.7% | 123.4%       |
| 1977 | 2,753                | 5,816 | 99,009  | 223        | 447  | 6,991  | 8.1%              | 7.7%  | 7.1% | 114.1%       |
| 1978 | 2,816                | 5,908 | 102,251 | 171        | 340  | 6,202  | 6.1%              | 5.7%  | 6.1% | 100.0%       |
| 1979 | 2,871                | 6,100 | 104,962 | 159        | 332  | 6,137  | 5.5%              | 5.4%  | 5.8% | 94.8%        |
| 1980 | 2,867                | 6,167 | 106,940 | 162        | 367  | 7,637  | 5.6%              | 6.0%  | 7.1% | 78.9%        |
| 1981 | 2,947                | 6,260 | 108,670 | 187        | 397  | 8,273  | 6.4%              | 6.3%  | 7.6% | 83.4%        |
| 1982 | 2,993                | 6,339 | 110,204 | 237        | 495  | 10,678 | 7.9%              | 7.8%  | 9.7% | 81.3%        |
| 1983 | 2,977                | 6,365 | 111,550 | 205        | 434  | 10,717 | 6.9%              | 6.8%  | 9.6% | 71.5%        |
| 1984 | 3,047                | 6,549 | 113,544 | 145        | 318  | 8,539  | 4.8%              | 4.9%  | 7.5% | 63.5%        |
| 1985 | 3,051                | 6,632 | 115,461 | 120        | 292  | 8,312  | 3.9%              | 4.4%  | 7.2% | 54.2%        |
| 1986 | 3,056                | 6,721 | 117,834 | 118        | 265  | 8,237  | 3.8%              | 3.9%  | 7.0% | 54.3%        |
| 1987 | 3,086                | 6,829 | 119,865 | 99         | 229  | 7,425  | 3.2%              | 3.4%  | 6.2% | 51.8%        |
| 1988 | 3,155                | 6,914 | 121,669 | 103        | 216  | 6,701  | 3.3%              | 3.1%  | 5.5% | 60.1%        |
| 1989 | 3,180                | 6,998 | 123,869 | 127        | 269  | 6,528  | 4.0%              | 3.8%  | 5.3% | 76.2%        |
| 1990 | 3,228                | 7,147 | 125,840 | 195        | 408  | 7,047  | 6.0%              | 5.7%  | 5.6% | 107.1%       |
| 1991 | 3,162                | 7,082 | 126,346 | 286        | 569  | 8,628  | 9.1%              | 8.0%  | 6.8% | 133.8%       |
| 1992 | 3,145                | 7,057 | 128,105 | 269        | 568  | 9,613  | 8.6%              | 8.1%  | 7.5% | 114.7%       |
| 1993 | 3,164                | 7,025 | 129,200 | 219        | 479  | 8,940  | 6.9%              | 6.8%  | 6.9% | 100.0%       |
| 1994 | 3,173                | 6,964 | 131,056 | 191        | 412  | 7,996  | 6.0%              | 5.9%  | 6.1% | 98.4%        |
| 1995 | 3,164                | 6,955 | 132,304 | 170        | 373  | 7,404  | 5.4%              | 5.4%  | 5.6% | 96.4%        |
| 1996 | 3,174                | 6,996 | 133,943 | 137        | 335  | 7,236  | 4.3%              | 4.8%  | 5.4% | 79.6%        |
| 1997 | 3,260                | 7,121 | 136,297 | 131        | 314  | 6,739  | 4.0%              | 4.4%  | 4.9% | 81.6%        |
| 1998 | 3,273                | 7,113 | 137,673 | 109        | 250  | 6,210  | 3.3%              | 3.5%  | 4.5% | 73.3%        |
| 1999 | 3,275                | 7,171 | 139,368 | 105        | 236  | 5,880  | 3.2%              | 3.3%  | 4.2% | 76.2%        |
| 2000 | 3,318                | 7,358 | 140,863 | 88         | 203  | 5,655  | 2.6%              | 2.8%  | 4.0% | 65.0%        |
| 2001 | 3,393                | 7,422 | 141,815 | 125        | 272  | 6,742  | 3.7%              | 3.7%  | 4.7% | 78.7%        |
| 2002 | 3,486                | 7,565 | 142,535 | 185        | 367  | 8,266  | 5.3%              | 4.9%  | 5.8% | 91.4%        |
| 2003 | 3,416                | 7,554 | 146,510 | 198        | 409  | 8,774  | 5.8%              | 5.4%  | 6.0% | 96.7%        |

SOURCE: United States Department of Labor, Bureau of Labor Statistics.

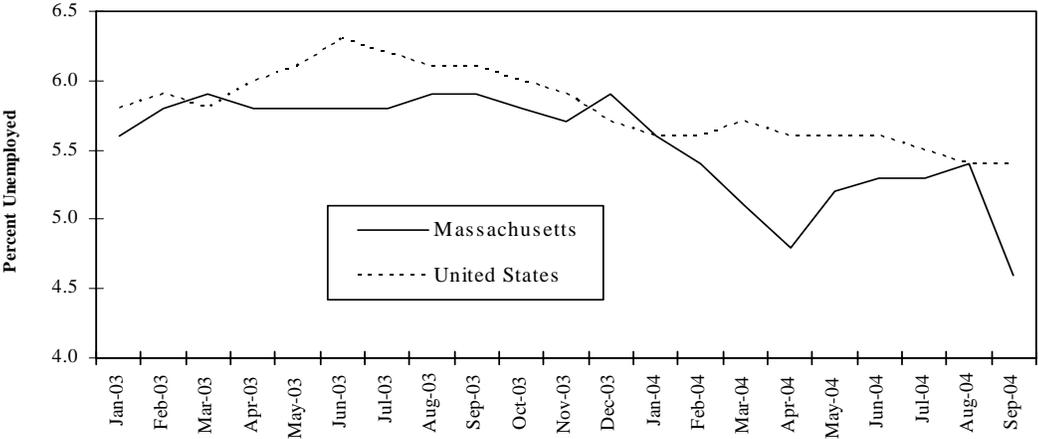
**Annual Average Unemployment Rate, 1970 -2003,  
Massachusetts, New England, and United States**



SOURCE: United States Department of Labor, Bureau of Labor Statistics.

The unemployment rate in Massachusetts has been consistently below that of the United States ever since the recovery from the recession of the early 1990's, with the exception of two months in 2003. Unemployment levels in the United States as a whole and in the New England region have shown similar patterns in the last year, generally rising for much of 2003, then falling slightly in recent months. The unemployment rate in Massachusetts shows a somewhat more erratic pattern, but it dropped from 5.9 to 4.6 percent between September 2003 and September 2004, while the United States unemployment rate dropped from 6.1 to 5.4 percent over those same months. The following chart shows the unemployment rates for Massachusetts and the United States from each of the past twenty-one months.

**Monthly Unemployment Rate,  
January 2003 - September 2004  
(seasonally adjusted)**



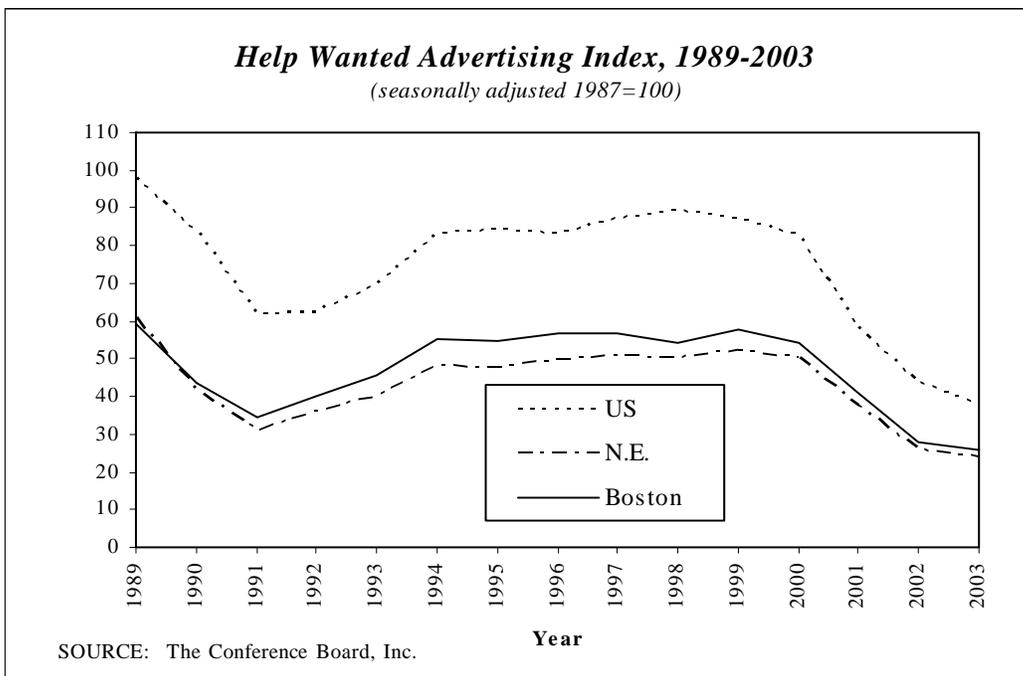
SOURCE: MA Division of Employment Assistance. Month-Year

**Help Wanted Advertising Index.** This index is an additional measure of the employment conditions in various regions across the country and for the nation as a whole. Compiled by The Conference Board, Inc., the index is based on the volume of help wanted advertising in 51 major newspapers across the country whose circulation covers about half of the country's nonagricultural employment. The index is compiled for each of the 51 markets, then weighted into regional averages which are then weighted into the national index. The index is intended to be a proxy measure for labor demand. According to the Conference Board, Inc., rising trends in want-ad volume have generally corresponded to improved labor market conditions and declining volume has indicated a decline in new employment.

**Help Wanted Advertising Index, 1989-2003**  
*seasonally adjusted 1987=100)*

|      | US   | % Change | N.E. | % Change | Boston | % Change |
|------|------|----------|------|----------|--------|----------|
| 1989 | 98.0 |          | 60.8 |          | 59.5   |          |
| 1990 | 83.8 | -14.5%   | 41.5 | -31.8%   | 43.5   | -26.9%   |
| 1991 | 62.0 | -26.0%   | 31.0 | -25.3%   | 34.7   | -20.3%   |
| 1992 | 62.5 | 0.8%     | 35.8 | 15.3%    | 39.9   | 15.1%    |
| 1993 | 69.4 | 11.1%    | 40.3 | 12.6%    | 45.4   | 13.8%    |
| 1994 | 82.9 | 19.4%    | 48.1 | 19.5%    | 55.4   | 22.0%    |
| 1995 | 84.3 | 1.6%     | 47.8 | -0.7%    | 54.5   | -1.7%    |
| 1996 | 83.2 | -1.3%    | 49.8 | 4.2%     | 56.8   | 4.3%     |
| 1997 | 87.0 | 4.6%     | 50.6 | 1.7%     | 56.7   | -0.3%    |
| 1998 | 89.4 | 2.8%     | 50.0 | -1.2%    | 54.0   | -4.7%    |
| 1999 | 87.3 | -2.4%    | 52.4 | 4.8%     | 57.8   | 7.1%     |
| 2000 | 82.4 | -5.5%    | 50.0 | -4.6%    | 54.1   | -6.5%    |
| 2001 | 58.3 | -29.3%   | 37.7 | -24.7%   | 40.9   | -24.3%   |
| 2002 | 43.8 | -24.9%   | 25.9 | -31.2%   | 28.0   | -31.6%   |
| 2003 | 37.8 | -13.5%   | 23.8 | -8.4%    | 25.8   | -7.7%    |

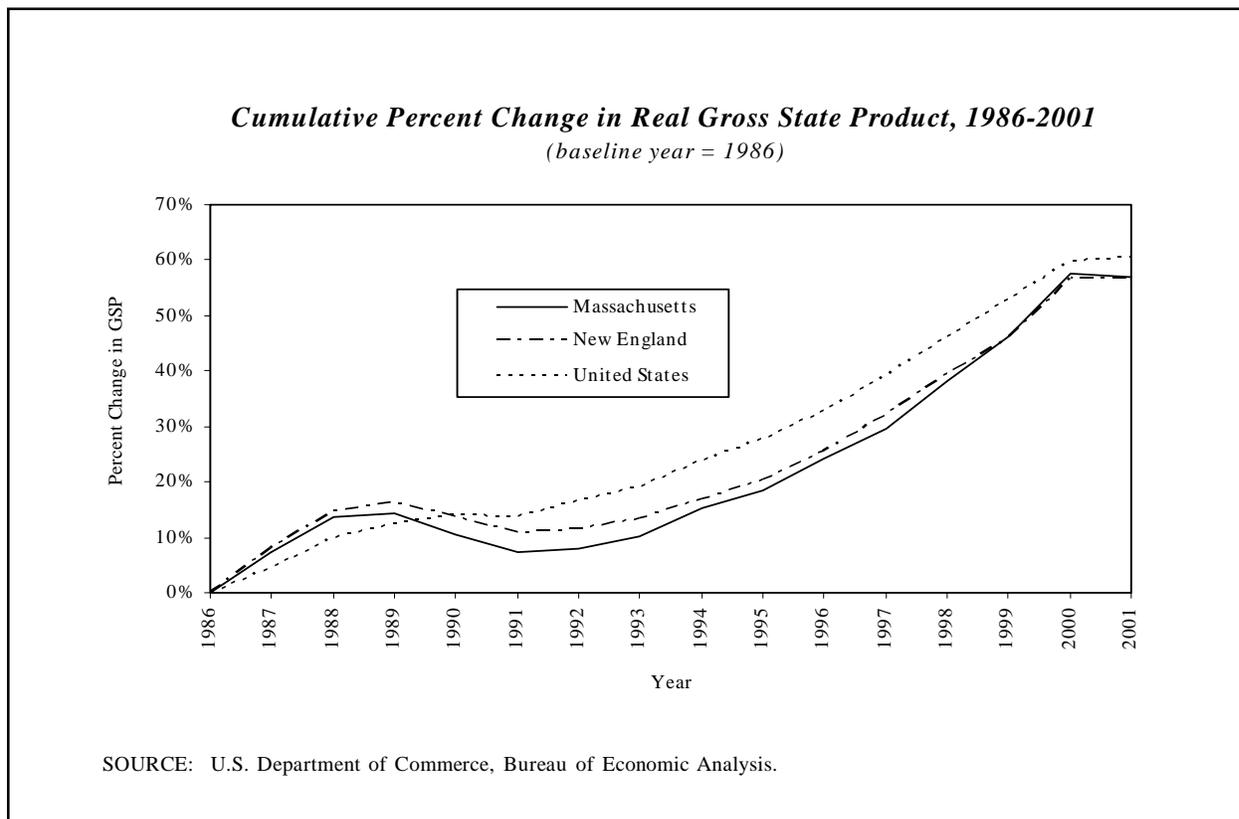
SOURCE: The Conference Board, Inc.



**Unemployment Insurance Trust Fund.** The unemployment insurance system is a federal-state cooperative program established by the Social Security Act and the Federal Unemployment Tax Act to provide for the payment of benefits to eligible individuals when they become unemployed through no fault of their own. Benefits are paid from the Commonwealth's Unemployment Insurance Trust Fund, financed through employer contributions. The assets and liabilities of the Commonwealth Unemployment Insurance Trust Fund are not assets and liabilities of the Commonwealth. As of September 30, 2004, the Massachusetts Unemployment Trust Fund had a balance of \$146 million, of which the private contributory sector portion was \$65 million, and the Division of Employment Assistance's 2004 Unemployment Insurance Trust Fund report indicates that Chapter 142 of the Massachusetts Acts of 2003, effective January 1, 2004, provides for employer contributions that should result in private contributory account reserves of \$1.259 billion at the end of 2008.

**ECONOMIC BASE AND PERFORMANCE**

In 1987 and 1988, the economies of Massachusetts and New England were among the strongest performers in the nation, with growth rates considerably higher than those for the national economy as a whole. Between 1989 and 1992, however, Massachusetts and New England experienced growth rates significantly below the national average. From 1992 to 1997, growth rates in Massachusetts and New England tracked the U.S. growth rate quite closely. In 1999 and 2000 the economies of both the Commonwealth and the region grew at a faster pace than the nation as a whole. However, both the U.S. and Massachusetts experienced slower growth in 2000 than in 1999, while New England's growth accelerated. Over the decade, growth of the Massachusetts economy averaged 3.9 percent, while New England and the nation have each experienced average growth of 3.5 percent. The Massachusetts economy is the largest in New England, making up an average of 47.7 percent of New England's total Gross State Product and an average of 2.7 percent of the nation's economy over the past decade. In 2001, Massachusetts experienced negative growth in the GSP of 0.4 percent, the first decline since 1991. New England GSP was flat in 2000 and the United States GSP grew by 0.4 percent.



The table below indicates the Gross State Product for Massachusetts, the New England states, and the United States. The United States figure is the sum of the fifty states.

### **Gross State Product, 1986-2001**

(millions of chained 1996 dollars)

| Year | Massachusetts |        | New England |        | United States |        |
|------|---------------|--------|-------------|--------|---------------|--------|
|      | GSP           | Change | GSP         | Change | Total GSP     | Change |
| 1986 | \$169,338     |        | \$350,747   |        | \$5,816,661   |        |
| 1987 | 181,855       | 7.4%   | 378,136     | 7.8%   | 6,072,815     | 4.4%   |
| 1988 | 192,255       | 5.7%   | 401,698     | 6.2%   | 6,386,132     | 5.2%   |
| 1989 | 193,839       | 0.8%   | 407,229     | 1.4%   | 6,538,634     | 2.4%   |
| 1990 | 187,167       | -3.4%  | 398,368     | -2.2%  | 6,630,740     | 1.4%   |
| 1991 | 181,901       | -2.8%  | 388,572     | -2.5%  | 6,615,685     | -0.2%  |
| 1992 | 182,789       | 0.5%   | 391,385     | 0.7%   | 6,774,505     | 2.4%   |
| 1993 | 186,680       | 2.1%   | 397,470     | 1.6%   | 6,918,388     | 2.1%   |
| 1994 | 195,171       | 4.5%   | 410,014     | 3.2%   | 7,203,002     | 4.1%   |
| 1995 | 200,537       | 2.7%   | 422,524     | 3.1%   | 7,433,965     | 3.2%   |
| 1996 | 210,127       | 4.8%   | 439,596     | 4.0%   | 7,715,901     | 3.8%   |
| 1997 | 219,716       | 4.6%   | 463,498     | 5.4%   | 8,093,396     | 4.9%   |
| 1998 | 233,981       | 6.5%   | 488,673     | 5.4%   | 8,502,663     | 5.1%   |
| 1999 | 247,354       | 5.7%   | 511,623     | 4.7%   | 8,882,613     | 4.5%   |
| 2000 | 266,840       | 7.9%   | 549,341     | 7.4%   | 9,298,227     | 4.7%   |
| 2001 | 265,722       | -0.4%  | 549,472     | 0.0%   | 9,335,399     | 0.4%   |

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

Chained dollars are utilized by the Bureau of Economic Analysis as a measure of real GSP.

The annual revision of BEA's gross state product (GSP) estimates for 1999-2000 and new estimates for 2001 were completed and released in May 2003.

The commercial base of Massachusetts is anchored by the fourteen 2003 Fortune 500 industrial and service firms headquartered within the state, as the following table indicates. The Fortune 500 firms are ranked according to total revenues in 2003. All companies listed in the 2003 Fortune 500 are also in the 2004. Nine out of thirteen companies improved their rank and Boston Scientific was added at 478.

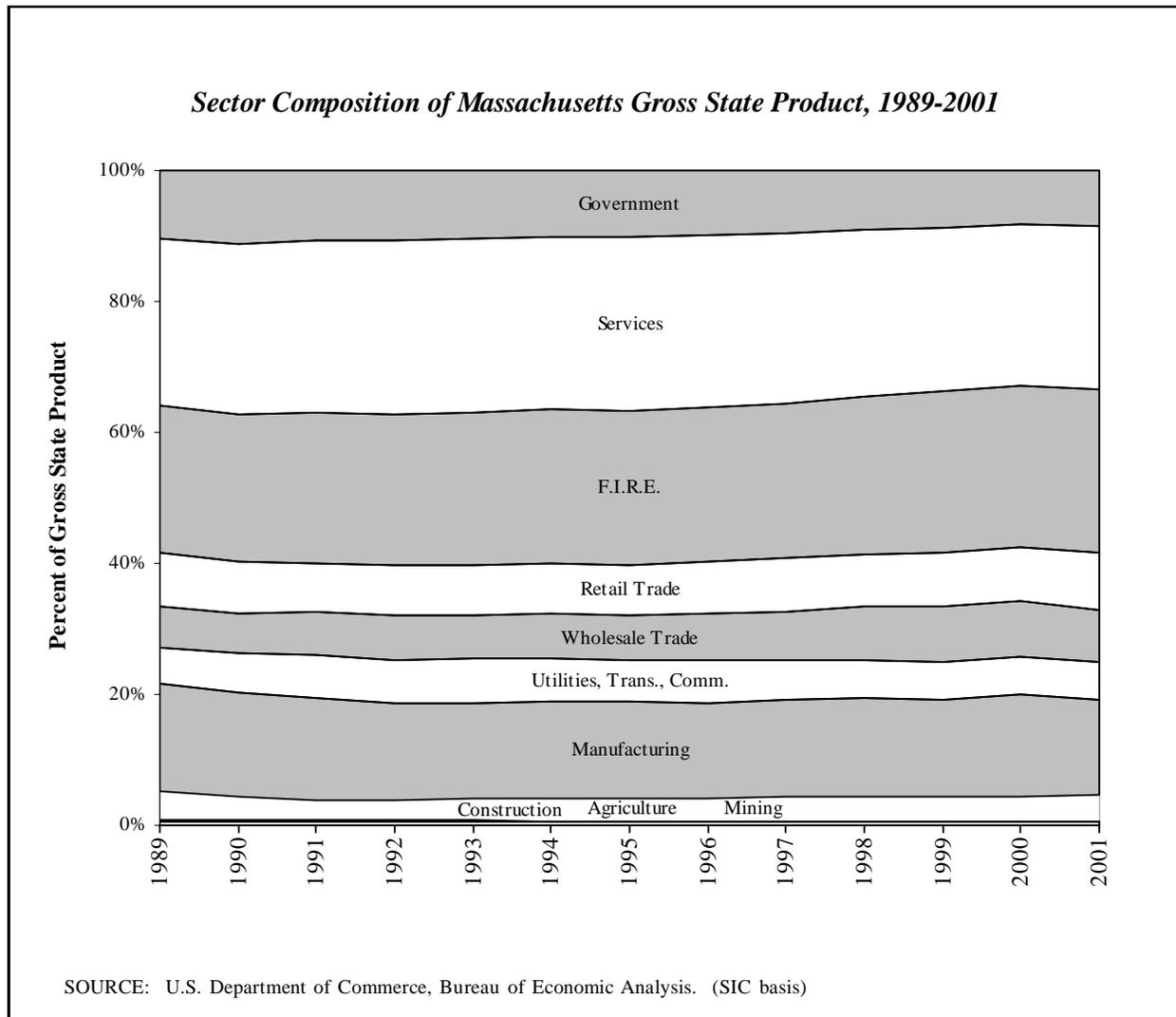
### **Massachusetts Companies in the 2004 Fortune 500**

| Rank |      | Company                                   | Industry                                  | 2003 revenues<br>(millions) |
|------|------|-------------------------------------------|-------------------------------------------|-----------------------------|
| 2004 | 2003 |                                           |                                           |                             |
| 90   | 84   | Mass. Mutual Life Insurance (Springfield) | Insurance: Life and Health (Mutual)       | \$21,080                    |
| 107  | 105  | Raytheon (Lexington)                      | Aerospace                                 | 18,109                      |
| 116  | 129  | Liberty Mutual Group (Boston)             | Insurance: Property and Casualty (Mutual) | 16,914                      |
| 140  | 115  | FleetBoston (Boston)                      | Commercial Banks                          | 14,362                      |
| 148  | 161  | TJX (Framingham)                          | Specialty Retailers                       | 13,328                      |
| 152  | 165  | Staples (Framingham)                      | Specialty Retailers                       | 13,181                      |
| 192  | 208  | John Hancock Financial Services (Boston)  | Insurance: Life and Health (Stock)        | 10,071                      |
| 215  | 218  | Gillette (Boston)                         | Metal Products                            | 9,252                       |
| 277  | 295  | BJ's Wholesale Club (Natick)              | Specialty Retailers                       | 6,724                       |
| 299  | 308  | EMC (Hopkinton)                           | Computer Peripherals                      | 6,237                       |
| 330  | 340  | State Street Boston Corp. (Boston)        | Commercial Banks                          | 5,463                       |
| 477  | 483  | Reebok International (Canton)             | Apparel                                   | 3,485                       |
| 478  | --   | Boston Scientific (Natick)                | Medical Products & Equipment              | 3,476                       |
| 494  | 456  | Allmerica Financial (Worcester)           | Insurance: Property and Casualty (Stock)  | 3,264                       |

SOURCE: *Fortune*, April 5, 2004.

## ECONOMIC BASE AND PERFORMANCE - SECTOR DETAIL (SIC BASIS)

The economy of Massachusetts remains diversified among several industrial and non-industrial sectors. The three largest sectors of the economy (services, F.I.R.E., and manufacturing on the old S.I.C. basis) contributed a 64.5 percent of the GSP in 2001, the same as their combined contribution in 1990. The next release of the GSP will be on a NAICS basis. The data below show the contributions to the Massachusetts real Gross State Product of all industrial and non-industrial sectors.



### *Gross State Product by Industry in Massachusetts, 1992-2001*

*(millions of chained 1996 dollars)*

| <b>Industrial Sector</b>      | <b>1992</b> | <b>1993</b> | <b>1994</b> | <b>1995</b> | <b>1996</b> | <b>1997</b> | <b>1998</b> | <b>1999</b> | <b>2000</b> | <b>2001</b> |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Ag., Forestry, Fishing</b> | \$1,173     | \$1,194     | \$1,124     | \$1,098     | \$1,143     | \$1,280     | \$1,263     | \$1,362     | \$1,465     | \$1,539     |
| <b>Mining</b>                 | 99          | 94          | 107         | 97          | 94          | 82          | 88          | 79          | 92          | 97          |
| <b>Construction</b>           | 5,696       | 6,130       | 6,753       | 6,933       | 7,477       | 8,026       | 8,780       | 9,479       | 10,136      | 10,469      |
| <b>Manufacturing</b>          | 27,281      | 27,402      | 28,789      | 29,835      | 30,687      | 32,813      | 35,486      | 36,688      | 41,808      | 38,543      |
| <b>Trans., Util., Comm.</b>   | 11,940      | 12,621      | 13,035      | 12,683      | 13,334      | 13,063      | 13,245      | 14,034      | 15,354      | 15,354      |
| <b>Wholesale Trade</b>        | 12,457      | 12,548      | 13,367      | 13,645      | 15,100      | 16,677      | 19,131      | 21,411      | 22,885      | 21,385      |
| <b>Retail Trade</b>           | 13,791      | 13,996      | 14,695      | 15,163      | 16,591      | 17,683      | 19,228      | 20,219      | 22,039      | 23,243      |
| <b>F.I.R.E.</b>               | 42,213      | 43,415      | 46,077      | 47,742      | 49,536      | 51,595      | 56,158      | 60,732      | 65,517      | 66,609      |
| <b>Services</b>               | 48,822      | 49,610      | 51,261      | 53,055      | 55,508      | 57,576      | 59,717      | 61,867      | 66,263      | 66,268      |
| <b>Government</b>             | 19,285      | 19,690      | 19,969      | 20,315      | 20,657      | 20,968      | 21,135      | 21,872      | 22,092      | 22,292      |
| <b>Total GSP</b>              | 182,789     | 186,680     | 195,171     | 200,537     | 210,127     | 219,716     | 233,981     | 247,354     | 266,840     | 265,722     |

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis. (SIC basis)

**Finance, Insurance, Real Estate.** The F.I.R.E. sector, the second largest contributor to the Massachusetts Gross State Product over the last decade, took the leading position in 2001 at 25.1 percent of GSP. In 2000, it contributed 24.0 percent of the Gross State Product. The sector has experienced yearly growth since the declines of 1989 to 1991, and was the only one of the top three sectors to grow in 2001, increasing by 1.7 percent over 2000.

**Services.** In 2001, the services sector, long the largest contributor to the Massachusetts Gross State Product, lost its leading position as it declined slightly in real terms from its 2000 level to represent 24.9 percent of GSP. After a period of stagnation and slight decline from 1989 to 1991, the sector showed solid growth through the 1990s and a 7.1 percent jump in 2000, but no growth in 2001.

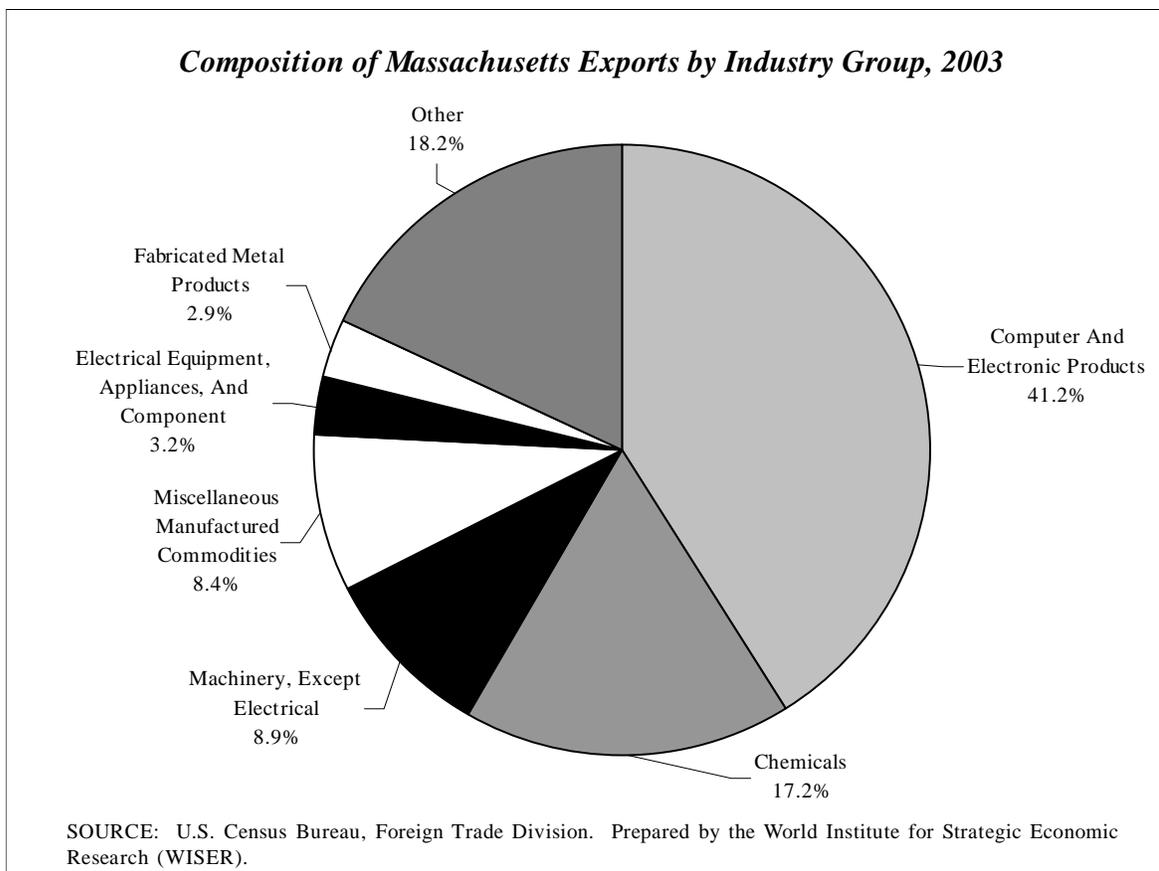
**Manufacturing.** The manufacturing sector was the third largest contributor to the Massachusetts Gross State Product in 2000, contributing 14.5 percent of the Gross State Product. Manufacturing in New England was hit hard during the recession of 1989-1991, and posted only moderate growth during the mid-nineties. The manufacturing sector grew at least 6.9 percent in three of the years from 1997 to 2000, including a gain of 14.0 percent in 2000, but suffered a 7.8 percent decline in 2001.

**Wholesale and Retail Trade.** Combined, the wholesale and retail trade sectors contributed 16.7 percent of the Massachusetts Gross State Product in 2001, with each sub-sector contributing almost equally to the total. Growth in the wholesale trade sector rebounded in 1991 and varied through the early 1990s but was very strong in the period from 1996 to 1999, increasing by more than 10 percent in each of those years. Growth of 6.9 percent in 2000 was offset by a decline of 6.6 percent in 2001, returning to 1999 levels. The retail sector was harder hit during the 1989-1991 recession, and did not rebound as quickly, with annual growth not exceeding 1.5 percent until 1994. In each of the six years from 1996 to 2001, however, retail growth exceeded 5 percent, including a 5.5 percent increase in 2001.

**Trade and International Trade.** A significant portion of what Massachusetts produces is exported internationally. Massachusetts ranked 10<sup>th</sup> in the United States, and first in New England, with \$18.7 billion in international exports in 2003. This represents an 11.7 percent increase from the previous year's exports from the Commonwealth, while national exports increased by 4.4 percent in the same period. Through July 2004, Massachusetts's exports totaled \$12.76 billion, an increase of 21.9 percent compared with exports in the first seven months of 2003. National exports were up 13.4 percent in the same period. It is not possible to provide balance of trade comparisons for Massachusetts because import data are not compiled on a state-by-state basis.

Massachusetts' five most important trading partners for 2003 were: Canada, with \$2.64 billion in purchases of Massachusetts exports; the Netherlands, with \$1.76 billion; Japan, with \$1.64 billion; Germany, with \$1.60 billion; and the United Kingdom, with \$1.43 billion in purchases. Between 2002 and 2003, the most significant growth in Massachusetts's exports among its top ten trading partners was in exports to the Netherlands, Malaysia and the Philippines, which increased by 66.9 percent, 74.9 percent and 63.9 percent, respectively.

Massachusetts' most important exports, as shown in the following chart, are computer and electronic products, chemical products, and non-electrical machinery. These categories reflect the adoption of the NAICS classification system, which groups computers with electronic products, rather than with machinery.



**Value of International Shipments from Massachusetts, 1997-2003**

*(top ten industry groups ranked by value of 2003 sales, in millions)*

| <b>Major Industry Group</b>                        | <b>1997</b>     | <b>1998</b>     | <b>1999</b>     | <b>2000</b>     | <b>2001</b>     | <b>2002</b>     | <b>2003</b>     |
|----------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Computer And Electronic Products                   | \$7,857         | \$7,458         | \$8,056         | \$10,215        | \$8,122         | \$7,024         | \$7,688         |
| Chemicals                                          | \$1,174         | \$1,223         | \$1,357         | \$1,600         | \$1,534         | \$2,267         | \$3,216         |
| Machinery, Except Electrical                       | \$1,885         | \$1,694         | \$1,705         | \$2,545         | \$2,044         | \$1,786         | \$1,668         |
| Miscellaneous Manufactured Commodities             | \$768           | \$835           | \$925           | \$1,053         | \$1,213         | \$1,210         | \$1,571         |
| Electrical Equipment, Appliances, And Component    | \$570           | \$596           | \$720           | \$834           | \$691           | \$649           | \$592           |
| Fabricated Metal Products                          | \$748           | \$597           | \$601           | \$649           | \$569           | \$692           | \$539           |
| Primary Metal Manufacturing                        | \$282           | \$335           | \$283           | \$358           | \$272           | \$248           | \$425           |
| Transportation Equipment                           | \$655           | \$637           | \$698           | \$659           | \$449           | \$346           | \$383           |
| Plastics And Rubber Products                       | \$323           | \$357           | \$389           | \$374           | \$400           | \$406           | \$375           |
| Paper                                              | \$311           | \$334           | \$364           | \$435           | \$386           | \$373           | \$355           |
| <b>Total Exports, Top Massachusetts Industries</b> | <b>\$14,574</b> | <b>\$14,065</b> | <b>\$15,098</b> | <b>\$18,722</b> | <b>\$15,679</b> | <b>\$15,002</b> | <b>\$16,812</b> |
| <b>Total Massachusetts Exports</b>                 | <b>\$16,526</b> | <b>\$15,878</b> | <b>\$16,805</b> | <b>\$20,514</b> | <b>\$17,490</b> | <b>\$16,708</b> | <b>\$18,663</b> |
| <b>Percent Change from Prior Year</b>              |                 | <b>-3.9%</b>    | <b>5.8%</b>     | <b>22.1%</b>    | <b>-14.7%</b>   | <b>-4.5%</b>    | <b>11.7%</b>    |

SOURCE: World Institute for Strategic Economic Research (WISER). These figures reflect the changeover in export statistics reporting to the NAICS system from the SIC system. Categories and state totals are not comparable between systems. Pre-1997 data is not available.

**Transportation and Warehousing, and Utilities.** Massachusetts's major air and seaports are managed by the Massachusetts Port Authority (Massport), an independent public authority. Massport reported fiscal 2003 operating income of \$25.4 million (up 49 percent from fiscal 2002), with operating revenues up 18 percent (\$373.8 million in 2003 versus \$317.9 million in 2002) and operating costs up 16 percent (\$348.4 million in 2003 versus \$300.9 million in 2002).

In fiscal 2003, 22.5 million passengers (a 2.1 percent decrease from fiscal 2002) passed through Logan. Based on total passenger volume in calendar year 2002 data, Logan Airport was the most active airport in New England, the 20th most active in the U.S. and the 37th most active in the world, according to the Airports Council International (ACI). As of June 30, 2003, airline service at Logan, both scheduled and unscheduled, was provided by 54 airlines, including 7 U.S. major air carrier airlines, 17 non-U.S. flag carriers, and 12 regional and commuter airlines. JetBlue Airways commenced service from Logan January 7, 2004.

According to ACI, in calendar year 2002, Logan Airport ranked 17th in the nation in total air cargo volume. In fiscal year 2003, the airport handled more than 818 million pounds of cargo and mail (a 2.9 percent decrease from FY 2002). As of June 30, 2003, Logan was served by 9 all-cargo and small package/express carriers.

At Massport's Port of Boston properties, 2003 cargo throughput was 13.2 million metric tons (a 18.5 percent increase from 2002), automobile processing decreased 81 percent to 12,578 units, and cruise passenger trips decreased 4.4 percent to 200,352. Massachusetts total waterborne cargo shipped or received in 2002, from the Army Corps of Engineers data, decreased 1.2 percent (26,117 short tons), as did New England and the U.S., 3.9 and 1.9 percent respectively.

**Construction and Housing.** In 2001, construction activity contributed 3.9 percent of the Massachusetts Gross State Product. This sector experienced a significant decline between 1989 and 1991, with declines as large as 19.6 percent and 17.2 percent in 1990 and 1991. Beginning in 1992, however, the sector rebounded and has grown every year since, and by at least 6.9 percent in each year from 1995 to 2000. Growth tapered to 3.3 percent in 2001.

The following table shows the number of housing permits authorized on an annual basis in Massachusetts, New England, and the United States. Between 1983 and 1986, both Massachusetts and New England experienced strong growth in the number of housing permits authorized. This period was followed by a prolonged decline from 1987 to 1991 during which the number of housing permits authorized in Massachusetts declined by 71.2 percent. With the exception of a 12.9 percent drop in 1995, Massachusetts housing permit authorizations increased each year from 1992 to 1999, for a total increase in that period of 50.3 percent. All three regions experienced declines in 2000, and Massachusetts and New England saw continuing, if milder, decreases in authorizations for 2001. All regions experienced growth in 2002 and 2003, with New England surging by 14.2 percent from 2001, Massachusetts rebounding with 11.5 percent growth, while nationwide growth in authorizations was similar at 15.4 percent.

### *Housing Permits Authorized, 1969-2003*

| <i>Year</i> | <i>Massachusetts</i> |                       | <i>New England</i>   |                       | <i>United States</i> |                       |
|-------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
|             | <i>Total Permits</i> | <i>Percent Change</i> | <i>Total Permits</i> | <i>Percent Change</i> | <i>Total Permits</i> | <i>Percent Change</i> |
| <b>1969</b> | 33,572               |                       | 70,539               |                       | 1,330,161            |                       |
| <b>1970</b> | 38,330               | 14.2%                 | 74,068               | 5.0%                  | 1,354,746            | 1.8%                  |
| <b>1975</b> | 17,697               | -27.5%                | 41,645               | -21.0%                | 934,511              | -12.4%                |
| <b>1980</b> | 16,055               | -20.4%                | 40,195               | -25.1%                | 1,171,763            | -23.6%                |
| <b>1981</b> | 15,599               | -2.8%                 | 38,067               | -5.3%                 | 985,600              | -15.9%                |
| <b>1982</b> | 15,958               | 2.3%                  | 39,470               | 3.7%                  | 1,000,500            | 1.5%                  |
| <b>1983</b> | 22,950               | 43.8%                 | 57,567               | 45.9%                 | 1,605,221            | 60.4%                 |
| <b>1984</b> | 28,471               | 24.1%                 | 72,356               | 25.7%                 | 1,689,667            | 5.3%                  |
| <b>1985</b> | 39,360               | 38.2%                 | 96,832               | 33.8%                 | 1,732,335            | 2.5%                  |
| <b>1986</b> | 43,877               | 11.5%                 | 108,272              | 11.8%                 | 1,771,832            | 2.3%                  |
| <b>1987</b> | 40,018               | -8.8%                 | 101,222              | -6.5%                 | 1,542,499            | -12.9%                |
| <b>1988</b> | 31,766               | -20.6%                | 82,123               | -18.9%                | 1,450,583            | -6.0%                 |
| <b>1989</b> | 21,634               | -31.9%                | 53,543               | -34.8%                | 1,345,084            | -7.3%                 |
| <b>1990</b> | 15,276               | -29.4%                | 36,811               | -31.2%                | 1,125,583            | -16.3%                |
| <b>1991</b> | 12,624               | -17.4%                | 31,111               | -15.5%                | 953,834              | -15.3%                |
| <b>1992</b> | 16,346               | 29.5%                 | 36,876               | 18.5%                 | 1,105,083            | 15.9%                 |
| <b>1993</b> | 17,715               | 8.4%                  | 39,225               | 6.4%                  | 1,210,000            | 9.5%                  |
| <b>1994</b> | 18,302               | 3.3%                  | 40,459               | 3.1%                  | 1,366,916            | 13.0%                 |
| <b>1995</b> | 15,946               | -12.9%                | 37,357               | -7.7%                 | 1,335,835            | -2.3%                 |
| <b>1996</b> | 17,360               | 8.9%                  | 40,425               | 8.2%                  | 1,419,083            | 6.2%                  |
| <b>1997</b> | 17,554               | 1.1%                  | 42,047               | 4.0%                  | 1,442,251            | 1.6%                  |
| <b>1998</b> | 18,958               | 8.0%                  | 47,342               | 12.6%                 | 1,619,500            | 12.3%                 |
| <b>1999</b> | 18,977               | 0.1%                  | 47,379               | 0.1%                  | 1,663,916            | 2.7%                  |
| <b>2000</b> | 17,342               | -8.6%                 | 43,735               | -7.7%                 | 1,598,332            | -3.9%                 |
| <b>2001</b> | 16,654               | -4.0%                 | 42,786               | -2.2%                 | 1,636,700            | 2.4%                  |
| <b>2002</b> | 17,122               | 2.8%                  | 47,173               | 10.3%                 | 1,747,600            | 6.8%                  |
| <b>2003</b> | 18,574               | 8.5%                  | 48,845               | 3.5%                  | 1,889,400            | 8.1%                  |

SOURCES: Federal Reserve Bank of Boston; United States Department of Commerce.

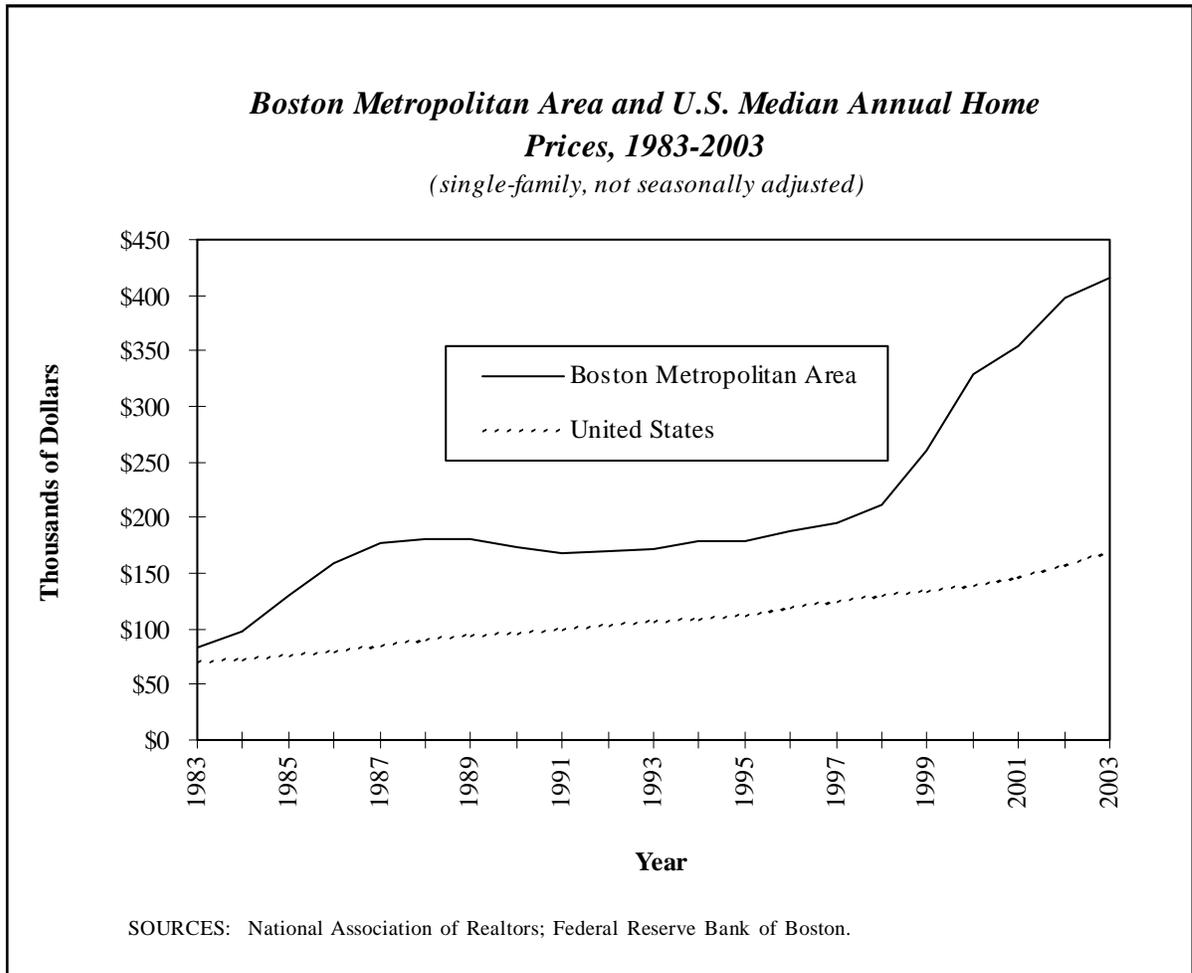
Both the economic recession of 1990-1991 and the subsequent economic recovery were strongly reflected in the Massachusetts housing sector, but the recession that began in 2001 has had a less pronounced impact on home sales. Significant declines in existing home sales in Massachusetts in 1989 and 1990 (of 10.9 percent and 28.8 percent, respectively) were followed by rapid sales growth between 1991 and 1993, when home sales in Massachusetts increased at a yearly rate substantially higher than the national average. Following this period of rapid growth, the growth in existing home sales slowed to a rate of 0.7 percent in 1994 and declined 2.6 percent in 1995. In 1996, 1997, and 1998, however, growth in existing home sales in Massachusetts was significant, outpacing the New England and national average in 1996 and 1997 with rates of 16.6 percent and 11.0 percent, respectively. This strong growth ended in 1999 when existing home sales in the Commonwealth declined 1.3 percent while growth in existing home sales nationally was 6.0 percent. In 2000, existing home sales in Massachusetts declined by 10 percent and did not start growing again until 2002. On a seasonally adjusted annual basis, existing home sales for the Commonwealth, New England, and the United States appear in the following table.

***Existing Home Sales, 1981-2003***  
(seasonally adjusted annual rates, in thousands)

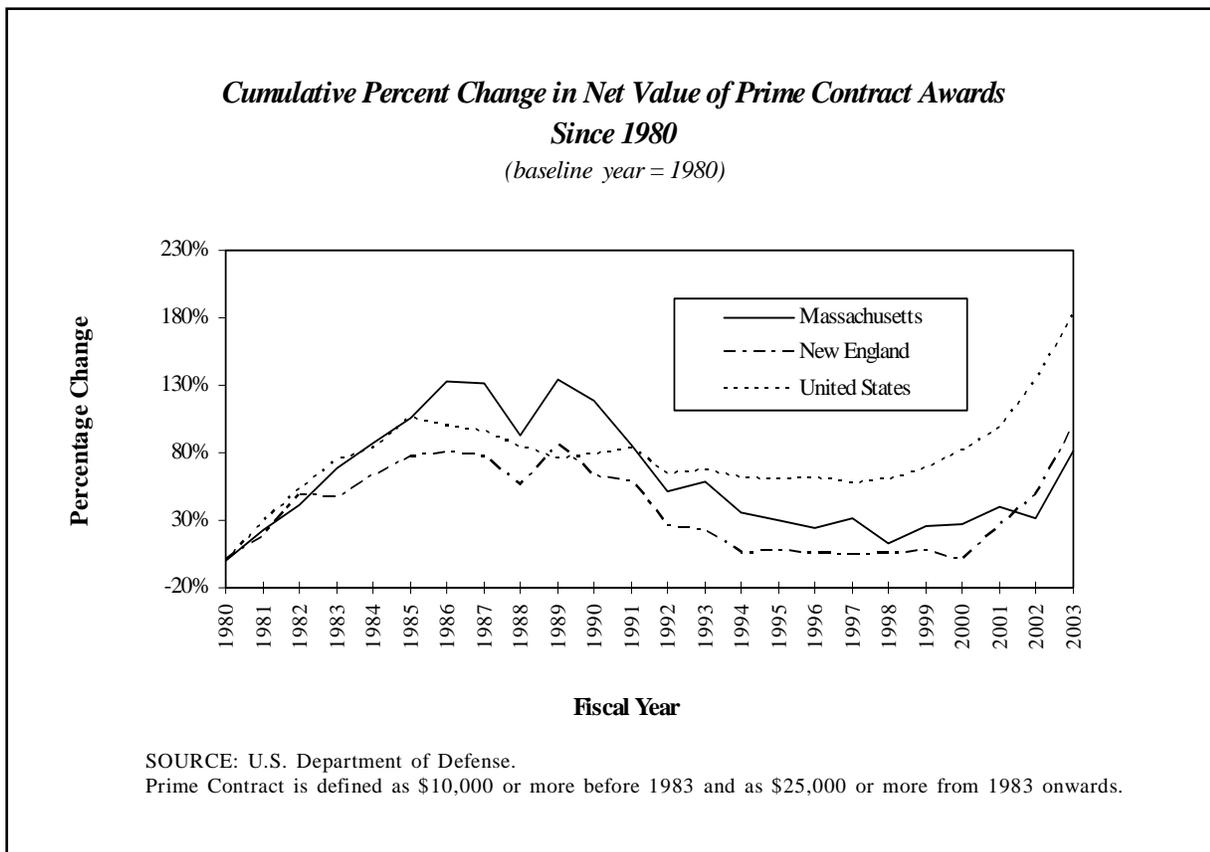
| <i>Year</i> | <i>Massachusetts</i> |                 | <i>New England</i> |                 | <i>United States</i> |                 |
|-------------|----------------------|-----------------|--------------------|-----------------|----------------------|-----------------|
|             | <i>Sales</i>         | <i>% Change</i> | <i>Sales</i>       | <i>% Change</i> | <i>Sales</i>         | <i>% Change</i> |
| 1981        | 43.0                 |                 | 105.8              |                 | 2,575.0              |                 |
| 1982        | 42.6                 | -0.8%           | 98.6               | -6.9%           | 2,117.5              | -17.8%          |
| 1983        | 59.2                 | 39.0%           | 141.3              | 43.3%           | 2,875.0              | 35.8%           |
| 1984        | 54.9                 | -7.3%           | 140.7              | -0.4%           | 3,027.5              | 5.3%            |
| 1985        | 60.2                 | 9.7%            | 157.0              | 11.6%           | 3,382.5              | 11.7%           |
| 1986        | 67.0                 | 11.3%           | 169.2              | 7.8%            | 3,772.5              | 11.5%           |
| 1987        | 76.4                 | 14.1%           | 174.5              | 3.1%            | 3,767.5              | -0.1%           |
| 1988        | 76.6                 | 0.2%            | 178.5              | 2.3%            | 3,882.5              | 3.1%            |
| 1989        | 68.2                 | -10.9%          | 163.0              | -8.7%           | 3,672.0              | -5.4%           |
| 1990        | 48.6                 | -28.8%          | 134.0              | -17.8%          | 3,603.5              | -1.9%           |
| 1991        | 53.4                 | 10.0%           | 140.5              | 4.9%            | 3,533.3              | -1.9%           |
| 1992        | 62.5                 | 17.0%           | 170.6              | 21.4%           | 3,889.5              | 10.1%           |
| 1993        | 70.9                 | 13.4%           | 193.8              | 13.6%           | 4,220.3              | 8.5%            |
| 1994        | 71.4                 | 0.7%            | 200.3              | 3.4%            | 4,409.8              | 4.5%            |
| 1995        | 69.6                 | -2.6%           | 185.7              | -7.3%           | 4,342.3              | -1.5%           |
| 1996        | 81.2                 | 16.6%           | 200.7              | 8.1%            | 4,705.3              | 8.4%            |
| 1997        | 90.1                 | 11.0%           | 219.4              | 9.3%            | 4,908.8              | 4.3%            |
| 1998        | 99.9                 | 10.8%           | 248.3              | 13.2%           | 5,585.3              | 13.8%           |
| 1999        | 98.5                 | -1.3%           | 253.3              | 2.0%            | 5,922.8              | 6.0%            |
| 2000        | 88.7                 | -10.0%          | 242.0              | -4.4%           | 5,831.8              | -1.5%           |
| 2001        | 87.5                 | -1.4%           | 239.6              | -1.0%           | 6,026.3              | 3.3%            |
| 2002        | 91.9                 | 5.0%            | 244.5              | 2.0%            | 6,421.3              | 6.6%            |
| 2003        | 96.5                 | 5.0%            | 279.2              | 14.2%           | 6,994.8              | 8.9%            |

SOURCES: Federal Reserve Bank of Boston; National Association of Realtors. Revised May 2004  
N/A: Not Available

Median single-family home prices for the Boston Metropolitan area appear below. While Boston housing prices were 118.1 percent of the U.S. median in 1983, by 1987 Boston housing prices as a percent of the national median had reached 205.7 percent. After dipping to 160.9 percent of the national median in 1993 and remaining as low as 162.9 percent of the national median in 1998, Boston home prices soared to 237 percent of the national median in the fourth quarter of 2003. The Boston metropolitan area median home price rose to \$406,800 in the fourth quarter of 2003, compared to the national home price of \$171,600.



**Defense.** Following a peak at \$8.7 billion in the value of military prime contracts awarded to Massachusetts firms in fiscal 1986, defense-related contracts declined 17.2 percent by fiscal 1988 to \$7.2 billion. By fiscal 1995, the value of defense-related prime contracts had declined to \$4.8 billion. The net value of prime contract awards in Massachusetts oscillated between \$4.2 and \$5.2 billion from 1995 to 2002, but jumped 38 percent from 2002 to 2003 to reach \$6.8 billion. The chart below illustrates the yearly changes in the value of Massachusetts military prime contracts from 1981 to 2003.



The importance of the defense industry to the Massachusetts economy is reflected in table on the following page, which shows the value of Department of Defense prime contract awards between 1980 and 2003. Since the early 1980s, the Commonwealth's share of New England's prime contract awards had remained around or above 50 percent. In 1998, Massachusetts' share of New England's prime contract awards dipped to 45.7 percent and in 1999, the Commonwealth's share recovered only some of its losses, rising to 49.9 percent. In 2000, the Commonwealth's share of New England's prime contract awards rose to a recent peak of 54.2 percent, but large increases elsewhere in New England in 2001 offset the Massachusetts increase and pushed the Commonwealth's share in the region back down to 47.3 percent. In 2002, the Commonwealth's share of the national total reached its lowest point in over two decades, but increased slightly to 3.6 percent in 2003 due to a \$1.6 billion increase in aircraft engine, missile and space system, services and weapons procurement contracts. Despite this trend, Massachusetts remains the eighth largest recipient in defense spending.

**Net Value of Department of Defense Prime Contract Awards, 1980-2003**

*(in millions)*

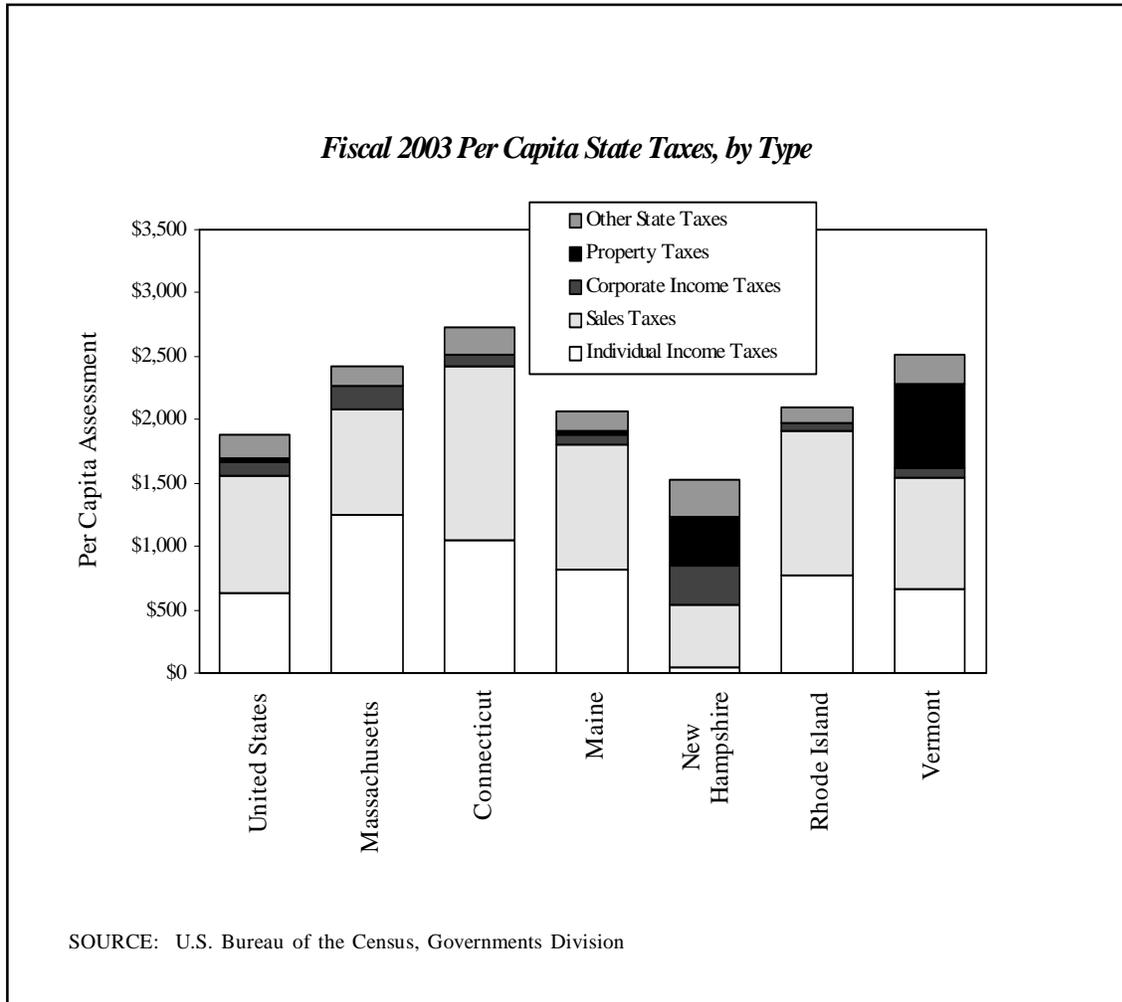
| Fiscal Year | MA      | N.E.    | U.S.     | Massachusetts' Share (as a Percent) |         |
|-------------|---------|---------|----------|-------------------------------------|---------|
|             |         |         |          | of New England                      | of U.S. |
| 1980*       | \$3,743 | \$8,775 | \$68,070 | 42.7%                               | 5.5%    |
| 1981*       | 4,605   | 10,372  | 87,761   | 44.4%                               | 5.2%    |
| 1982*       | 5,317   | 13,037  | 103,858  | 40.8%                               | 5.1%    |
| 1983        | 6,328   | 12,967  | 118,744  | 48.8%                               | 5.3%    |
| 1984        | 7,029   | 14,249  | 123,995  | 49.3%                               | 5.7%    |
| 1985        | 7,714   | 15,487  | 140,096  | 49.8%                               | 5.5%    |
| 1986        | 8,735   | 15,748  | 136,026  | 55.5%                               | 6.4%    |
| 1987        | 8,685   | 15,606  | 133,262  | 55.7%                               | 6.5%    |
| 1988        | 7,212   | 13,673  | 125,767  | 52.7%                               | 5.7%    |
| 1989        | 8,757   | 16,268  | 119,917  | 53.8%                               | 7.3%    |
| 1990        | 8,166   | 14,271  | 121,254  | 57.2%                               | 6.7%    |
| 1991        | 6,933   | 13,889  | 124,119  | 49.9%                               | 5.6%    |
| 1992        | 5,686   | 11,033  | 112,285  | 51.5%                               | 5.1%    |
| 1993        | 5,936   | 10,779  | 114,145  | 55.1%                               | 5.2%    |
| 1994        | 5,106   | 9,329   | 110,316  | 54.7%                               | 4.6%    |
| 1995        | 4,846   | 9,375   | 109,005  | 51.7%                               | 4.4%    |
| 1996        | 4,675   | 9,237   | 109,408  | 50.6%                               | 4.3%    |
| 1997        | 4,910   | 9,152   | 106,561  | 53.6%                               | 4.6%    |
| 1998        | 4,245   | 9,284   | 109,386  | 45.7%                               | 3.9%    |
| 1999        | 4,715   | 9,456   | 114,875  | 49.9%                               | 4.1%    |
| 2000        | 4,737   | 8,745   | 123,295  | 54.2%                               | 3.8%    |
| 2001        | 5,248   | 11,094  | 135,225  | 47.3%                               | 3.9%    |
| 2002        | 4,929   | 13,029  | 158,737  | 37.8%                               | 3.1%    |
| 2003        | 6,800   | 17,544  | 191,221  | 38.8%                               | 3.6%    |

SOURCE: United States Department of Defense. \*Prime Contract is defined as \$10,000 and above for these years; beginning in 1983 it is defined as \$25,000 and above.

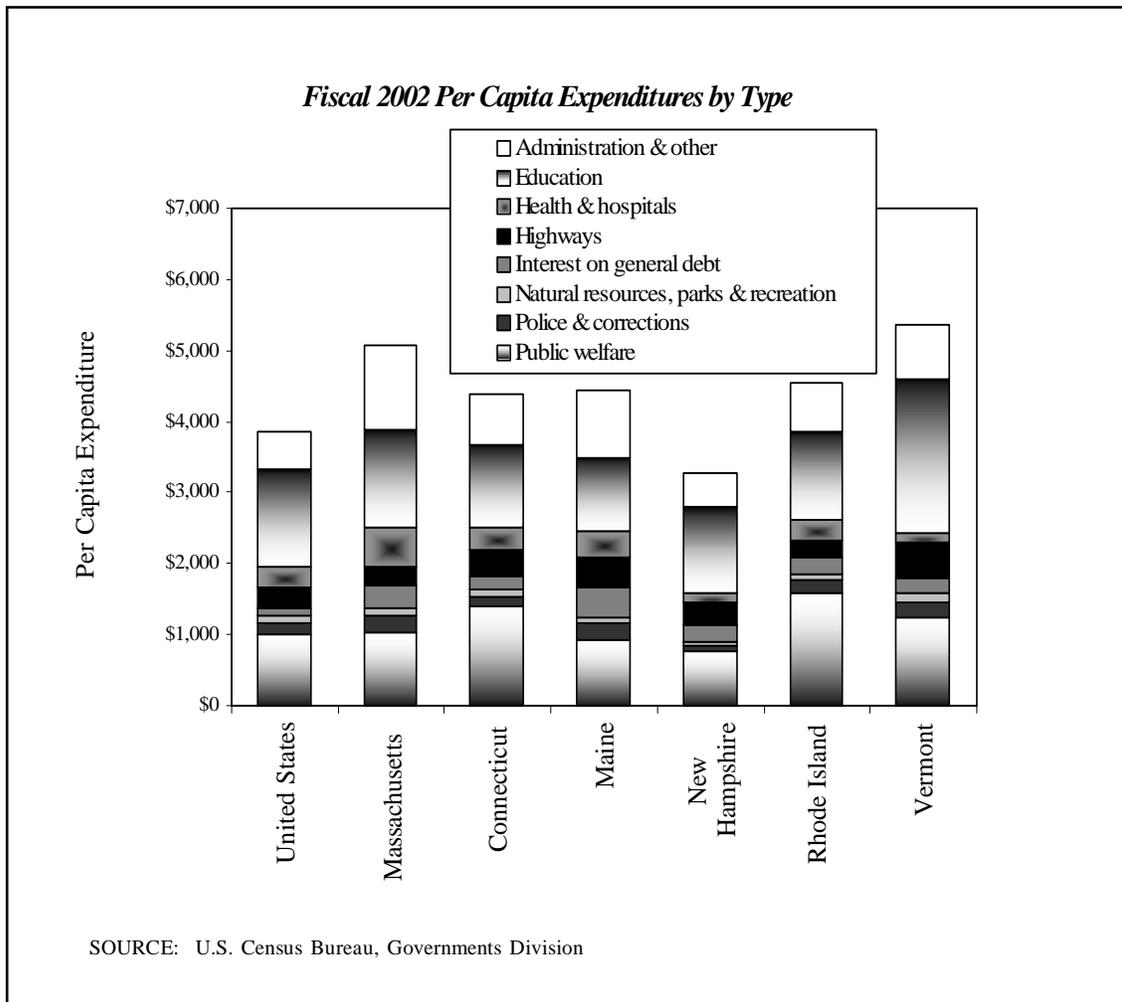
**Travel and Tourism.** The travel and tourism industry represents a substantial component of the overall Massachusetts economy. Massachusetts is one of the nation's most popular tourist and travel destinations for both domestic and international visitors. The greater Boston area is New England's most popular destination, as the site of many popular and historic attractions including the New England Aquarium, Boston's Museum of Fine Arts, Boston's Museum of Science, the U.S.S. Constitution, the Kennedy Library and Museum, and Faneuil Hall Marketplace.

The Massachusetts Office of Travel and Tourism estimates that 24.3 million domestic travelers traveled to or within the Commonwealth in 2002, a decrease of 6.9 percent from 2001. Additionally, 1.8 million international travelers visited Massachusetts in 2002. Leisure is the primary reason for 77 percent of tourist trips to Massachusetts. The latest available economic impact data indicates that direct spending by visitors to Massachusetts totaled \$11.7 billion in 2001, a decrease of 12.0 percent from the 2000 level.

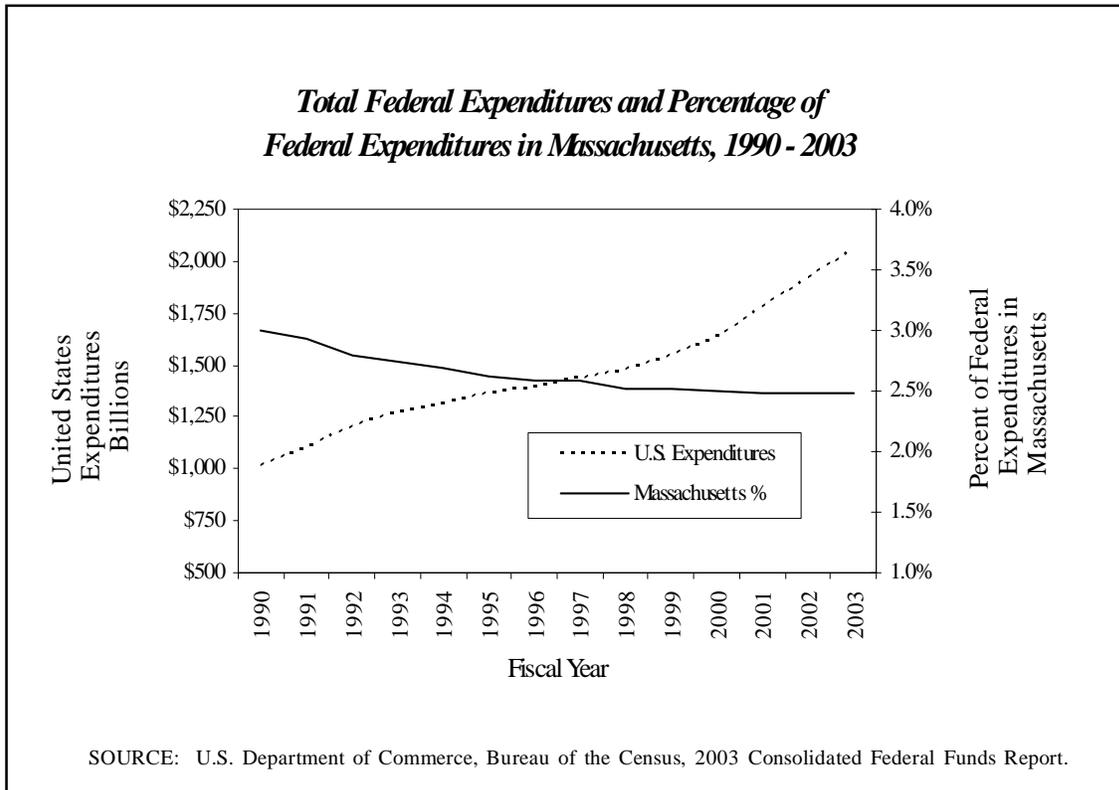
**State Taxes.** Per capita state taxes in Massachusetts are significantly higher, 28.8%, than the national average. In 2003, the total per capita state tax bill in the United States was \$1,884. Citizens of the Commonwealth, however, paid \$2,427 on average, the seventh highest rate in the nation. In New England, citizens in Connecticut and Vermont paid more per capita, and all New England states except New Hampshire, 44th, ranked in the top 15 for per capita state tax collections. In 2003, over half (51.4%) of the state taxes in Massachusetts came from the state income tax. Per capita individual income taxes in Massachusetts were \$1,248, down 6.7% from \$1,332 in 2002. Across the New England states, there is wide variation in both total per capita state taxes and in the breakdown of those taxes, as illustrated in the following chart.



**State Government Spending in Massachusetts.** The following chart depicts fiscal 2002 per capita state expenditures by category for the six New England states and the U.S. average state expenditure. Massachusetts spent more state funds per capita on debt service (\$418) and less on education (\$1020) than any of its New England neighbors. The differences between states in per capita spending are similar to those in taxation, with intergovernmental transfers (to and from local and federal governments) accounting for the degree to which per capita spending exceeds per capita taxation. While all New England states used less than the national average of 28.5 percent for intergovernmental expenditures, the variation within the region is significant, with intergovernmental expenditures representing 13.0 percent of Rhode Island expenditures, 19.1 percent of Massachusetts expenditures, and 26.1 percent of Vermont expenditures.

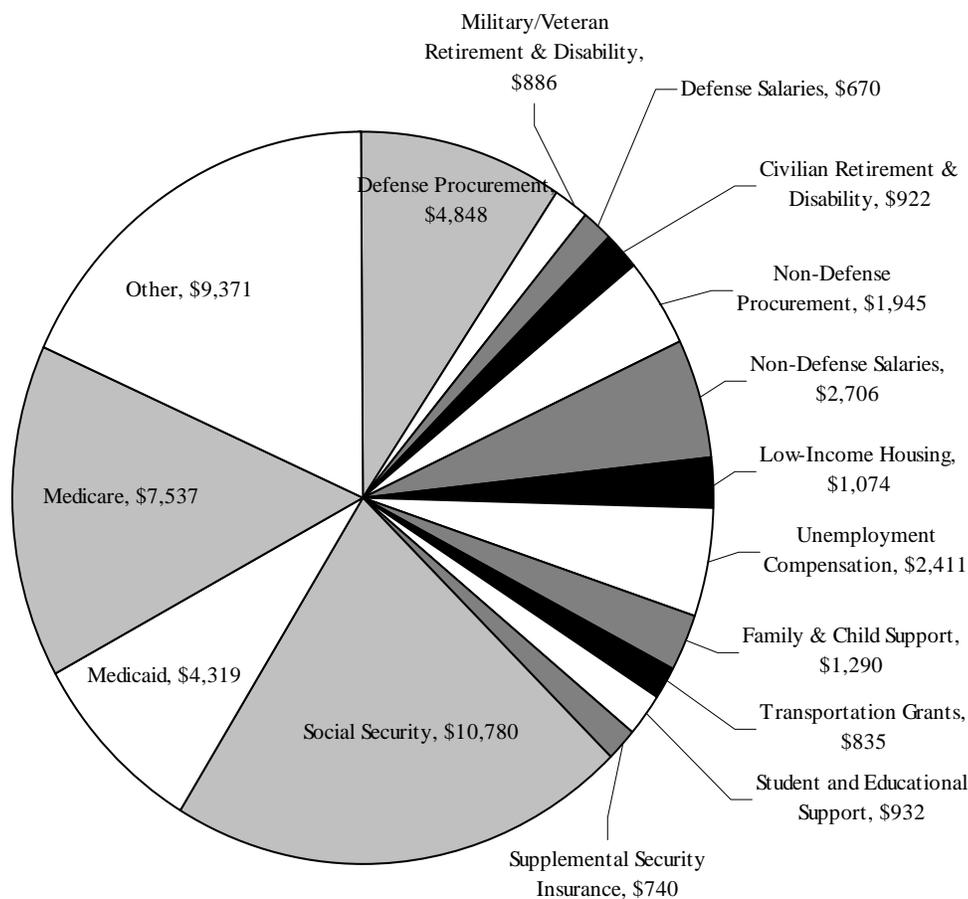


**Federal Government Spending in Massachusetts.** Federal government spending contributes a significant amount to the economy of Massachusetts. In fiscal 2003, Massachusetts ranked eleventh among states in per capita distribution of federal funds, with total spending of \$7,969 per person, excluding loans and insurance. Massachusetts' share of total federal spending declined steadily between 1990 and 1999, and has stabilized in the range of 2.48 percent to 2.52 percent between 1998 and 2003. The following chart shows total federal expenditures and the percentage of federal expenditures in Massachusetts. Federal spending includes grants to state and local governments, direct payments to individuals, wage and salary employment, and procurement contracts and includes only those expenditures that can be associated with individual states and territories.



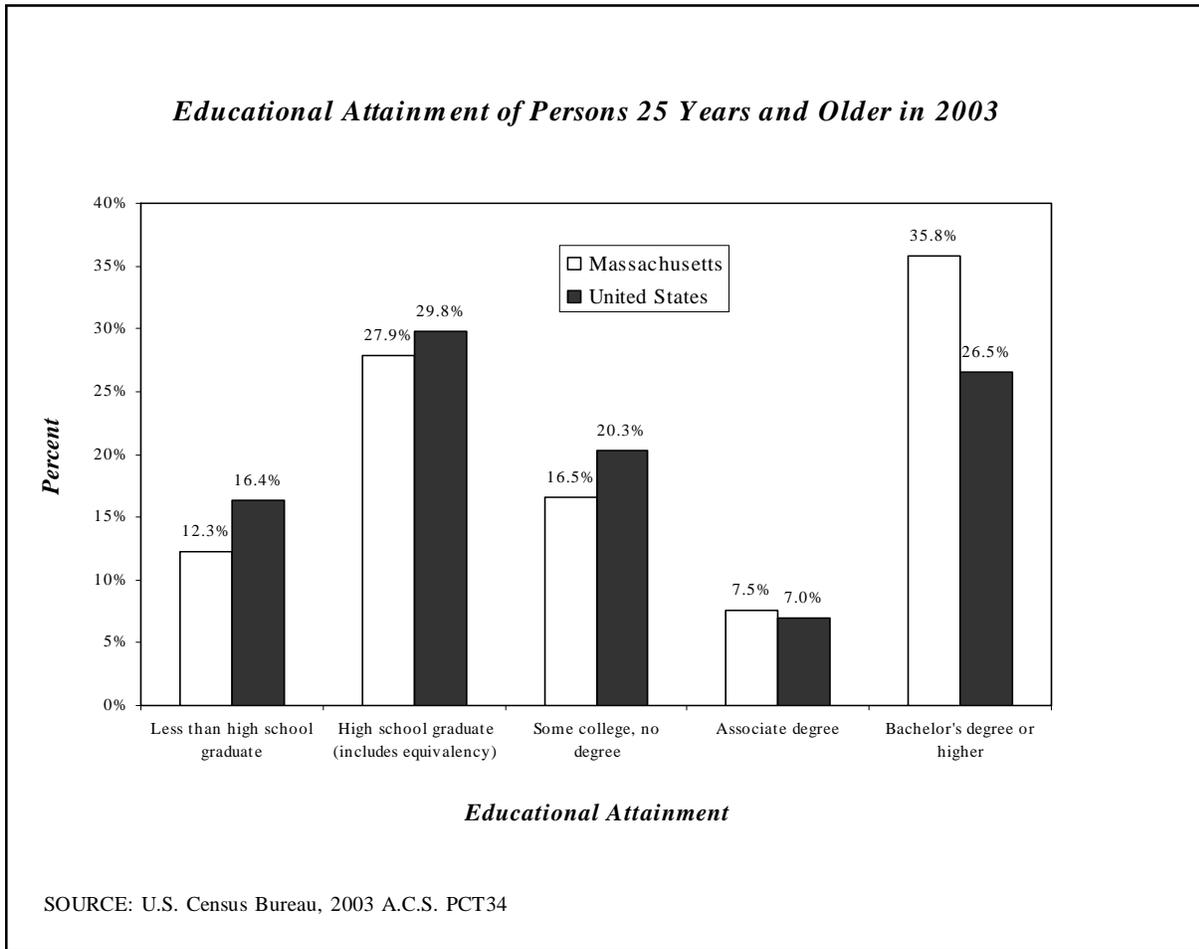
A large percentage of FY 2003 federal spending in Massachusetts was composed of health care and social programs like Medicare and Social Security. Massachusetts was above the national average in per capita federal grants to state and local governments, receiving \$2,071.73 per capita compared to a national average of \$1,496. Per capita federal spending on salaries and wages in 2003 was lower in Massachusetts than in the rest of the nation (\$535 compared to a national average of \$713) but Massachusetts was above the national average in per capita direct federal payments to individuals (\$4,062 compared to a national average of \$3,690). Massachusetts ranked 14<sup>th</sup> among states in per capita procurement contract awards (\$1,299 compared to a national average of \$1,011) in 2003. The following chart shows the composition of direct federal spending within Massachusetts in fiscal 2003, excluding loans and insurance.

***Composition of Direct Federal Spending in Massachusetts by Program,  
Fiscal 2003, millions of dollars***

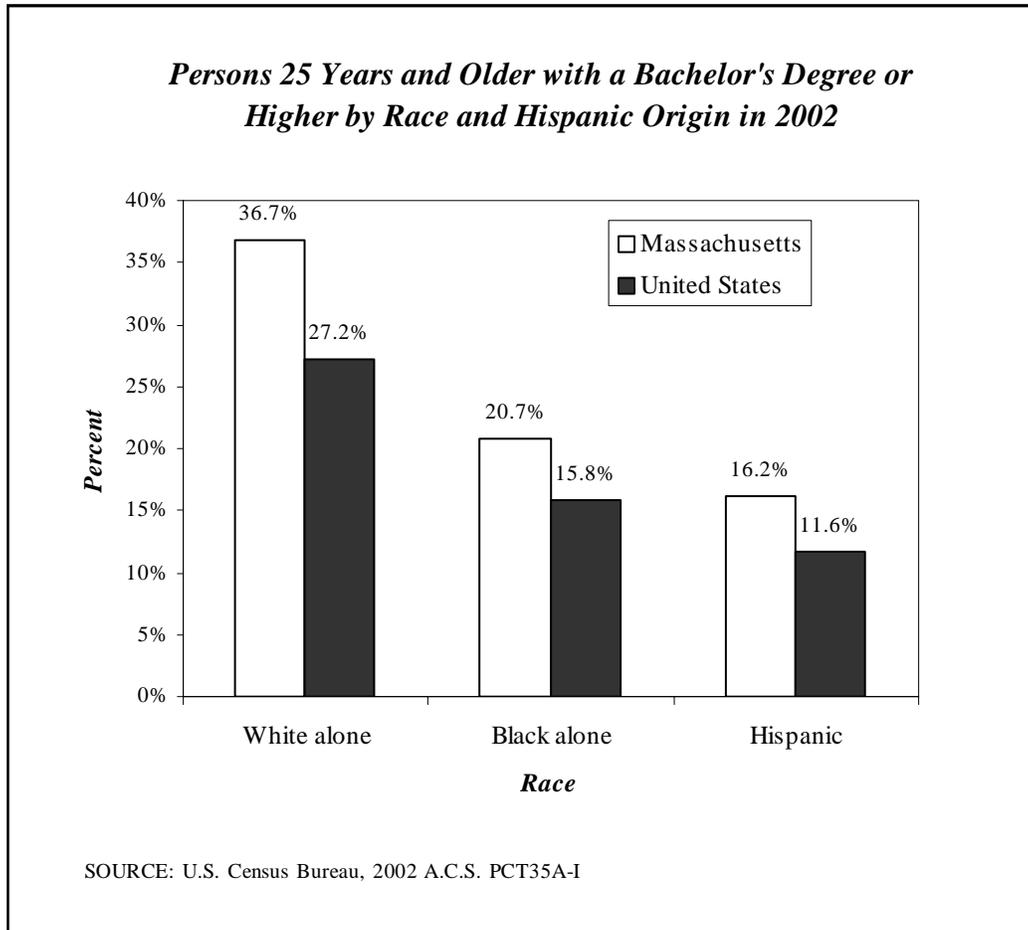


SOURCE: U.S. Department of Commerce, Bureau of the Census, 2003 Consolidated Federal Funds Report.

**Human Resources.** The availability of a skilled and well-educated population is an important resource for the Commonwealth. The level of education reached by the population of Massachusetts compares favorably with the level in the United States as a whole. In 2003, the Census’s American Community Survey (ACS) reported that Massachusetts had a smaller proportion of persons who had not completed high school (12.3%) than the national average (16.4%) and a much higher proportion of persons with a bachelor’s degree or more (35.8%), than the nation (26.5%). Massachusetts ranked eighteenth in the nation in percentage of its 25 and older population having received a high school diploma or more and second in percentage of the same population with a bachelor’s degree or more in 2003.



While Massachusetts' black and Hispanic population achieved college degrees at roughly half the rate of the white population, they fared much better than the national average.



Massachusetts has a higher minority enrollment in institutions of higher education than New England. However, the percentage of enrollment of blacks, Hispanics, and Asians in higher education in Massachusetts is below the national average. These percentages, which do not include military academy enrollment, are seen in the chart below.

**Higher Education Enrollment by Race and Hispanic Origin in 2002**

|                      | Black | Asian | Native American | White | Hispanic | Race Unknown |
|----------------------|-------|-------|-----------------|-------|----------|--------------|
| Massachusetts        | 6.0   | 5.9   | 0.4             | 60.9  | 4.8      | 15.3         |
| New England          | 5.8   | 4.6   | 0.5             | 68.7  | 4.6      | 13.6         |
| United States (2001) | 11.0  | 5.9   | 0.9             | 64.2  | 9.1      | NA           |

Note: Black, Asian, Native American and White totals reflect non-Hispanic population. Does not include the category non-resident alien. Table does not include enrollment at military academies. U.S. data from the U.S. Dept of Education.  
SOURCE: New England Board of Higher Education analysis of U.S. Department of Ed. Data.

Massachusetts is an internationally recognized center for higher education, with 431,855 students in undergraduate, professional and graduate programs in 2002, according to data supplied by the New England Board of Higher Education. The Institute of International Education reported the number of foreign students enrolled in Massachusetts colleges and universities in the 2002/2003 school year was 30,039, representing 5.41 percent of total foreign student enrollment in the United States. The Massachusetts public higher education system is composed of universities, state colleges, and community colleges with a combined enrollment of 187,492 students in 2002, almost half of whom attended part-time. In addition, Massachusetts has a system of private higher education that accounted for 56.7 percent of total enrollment in Massachusetts in 2002, and in which approximately one quarter of students attend school part-time. The strength of both public and private colleges and universities as centers for research and education contributes to the high quality of the Massachusetts work force and plays a key role in attracting and retaining business and industry within the state.

The higher education system in Massachusetts is particularly strong in post-graduate, scientific, and technical education, with 64.5 percent of New England's graduate science and engineering students attending Massachusetts institutions in 2001. The strength of the Massachusetts higher education system is evidenced by the draw it has upon new students. The strength of the Commonwealth's educational institutions is also reflected in the large number of degrees awarded. In 2001-2002, Massachusetts institutions conferred a total of 2,287 doctoral degrees.

The pre-eminence of higher education in Massachusetts contributes not only to the quality of its work force, but also to its stature in the nation and the world as a center for basic scientific research and for academic and entrepreneurial research and development. Doctorate-granting institutions in Massachusetts spent 4.8 percent of total national expenditures on R&D at such institutions in fiscal 2001, ranking Massachusetts fifth in the nation behind California, New York, Texas, and Pennsylvania. Doctorate-granting institutions in New England spent 7.9 percent (\$2.53 billion) of the total research and development funds (\$32.2 billion) spent by such institutions in fiscal 2001. Massachusetts institutions spent 61.6 percent of these funds (\$1.56 billion). [Source: National Science Foundation, Division of Science Resources Statistics, *Academic Research and Development Expenditures: Fiscal Year 2001*, NSF 03-316, Table B-23.]

The diversity of federal funding sources reflects the variety of research and development work performed at Massachusetts educational institutions. Of the \$1.16 billion in total fiscal 2000 federal outlays for science and engineering research to universities and colleges in Massachusetts (and their affiliated federally funded research and development centers), 48.8 percent was from the Department of Health and Human Services, 14.1 percent was from the National Science Foundation, 25.6 percent was from the Department of Defense, 6.2 percent was from the Department of Energy, and 3.6 percent was from the National Aeronautics and Space Administration. Massachusetts ranked 4<sup>th</sup> in the nation in 2000 in total federal outlays for research and development, with total federal spending of \$4.15 billion in the state. The educational sector captured 28.0 percent of this pool, while industry garnered 40.4 percent and non-profit institutions received 25.2 percent. [Source: National Science Foundation, Division of Science Resources Statistics, *Federal Funds for Research and Development: Fiscal Years 2000, 2001, and 2002*, NSF 02-321, Tables C-85, C-83b.]

Given the quality of the Commonwealth's research and development sector, it is not surprising that Massachusetts fares better than the national average in homes with telephone, computer, and internet access. According to a 1998 survey, 95.5 percent of homes in Massachusetts had telephones compared with 94.1 percent of homes in the United States. In 2001, among homes in Massachusetts, 59.1 percent had a computer compared with 56.5 percent nationally, and 54.7 percent of homes in Massachusetts had internet access while 50.5 percent of homes nationwide had such access. In New England, however, only Rhode Island had a lower percentage of households with a computer and only Vermont, Rhode Island and Maine had a lower percentage of households with internet access. [Sources: National Telecommunications and Information Administration (NTIA), *A Nation Online*, 2/2002; NTIA, *Falling Through The Net—Toward Digital Inclusion*, 10/2000.]

***Expenditure Per Pupil in Public Elementary and Secondary Schools,  
1981-2002***

*(in current, unadjusted dollars)*

| <i>Fiscal Year</i> | <i>Massachusetts</i> | <i>United States</i> | <i>Ratio (MA/U.S.)</i> |
|--------------------|----------------------|----------------------|------------------------|
| <b>1981</b>        | \$2,735              | \$2,307              | 1.19                   |
| <b>1982</b>        | 2,823                | 2,525                | 1.12                   |
| <b>1983</b>        | 3,072                | 2,736                | 1.12                   |
| <b>1984</b>        | 3,298                | 2,940                | 1.12                   |
| <b>1985</b>        | 3,653                | 3,222                | 1.13                   |
| <b>1986</b>        | 4,031                | 3,479                | 1.16                   |
| <b>1987</b>        | 4,491                | 3,682                | 1.22                   |
| <b>1988</b>        | 4,965                | 3,927                | 1.26                   |
| <b>1989</b>        | 5,485                | 4,307                | 1.27                   |
| <b>1990</b>        | 5,766                | 4,643                | 1.24                   |
| <b>1991</b>        | 5,881                | 4,902                | 1.20                   |
| <b>1992</b>        | 5,952                | 5,023                | 1.18                   |
| <b>1993</b>        | 6,141                | 5,160                | 1.19                   |
| <b>1994</b>        | 6,423                | 5,327                | 1.21                   |
| <b>1995</b>        | 6,783                | 5,529                | 1.23                   |
| <b>1996</b>        | 7,033                | 5,689                | 1.24                   |
| <b>1997</b>        | 7,331                | 5,923                | 1.24                   |
| <b>1998</b>        | 7,778                | 6,189                | 1.26                   |
| <b>1999</b>        | 8,260                | 6,508                | 1.27                   |
| <b>2000</b>        | 8,761                | 6,911                | 1.27                   |
| <b>2001</b>        | 9,509                | 7,376                | 1.29                   |
| <b>2002</b>        | 10,232               | 7,524                | 1.36                   |

SOURCE: United States Department of Education, National Center for Education Statistics.

Although spending on education is not necessarily an indicator of results, Massachusetts has spent from 12 to 36 percent more per pupil on primary and secondary education than the national average since at least 1981. During the 2001-2002 school year, Massachusetts increased per student expenditures to \$10,232; 36 percent higher than the national average. The preceding table shows expenditures per pupil for Massachusetts and the United States since fiscal 1981.

In the 2003 National Assessment of Educational Progress conducted by the U.S. Department of Education, 4<sup>th</sup> graders and 8<sup>th</sup> graders around the nation were given standardized exams in reading and math. Massachusetts's 2003 4<sup>th</sup> grade average scale reading scores were lower than 2002 but still higher than 48 other states and jurisdictions and not statistically different from the remaining 4. Massachusetts's 8<sup>th</sup> grade reading scores were higher in 2003 but not statistically different from 2002. Nationally, they were higher than 49 other jurisdictions and not statistically different from the remaining 3. Massachusetts's math scores for both 4<sup>th</sup> and 8<sup>th</sup> graders in 2003 were significantly higher than 2000. Nationally, 4<sup>th</sup> grade scores were higher than 49 other jurisdictions and not statistically different from the remaining 3 while 8<sup>th</sup> grade scores were higher than 42 other jurisdictions, not significantly different than 9 and lower than 1.

In 2002, the U.S. Department of Education tested 4<sup>th</sup> and 8<sup>th</sup> grade student's writing skills. Massachusetts's 4<sup>th</sup> grade average scale score was higher than those in 46 other jurisdictions, and lower than those in 1 jurisdiction. The 8<sup>th</sup> grade scores were higher than 1998 and higher than those in 41 jurisdictions and not statistically different from those in 5 in 2002.

In 2000, 4<sup>th</sup> and 8<sup>th</sup> graders were given standardized exams in science. Massachusetts 4<sup>th</sup> graders scored highest in the nation on the science exam and only 8<sup>th</sup> graders in Montana achieved statistically significant higher scores than 8<sup>th</sup> graders in Massachusetts. [Source: U.S. Department of Education, Institute of Education Sciences, National Center for Educational Statistics, National Assessment of Educational Progress (NAEP). "Jurisdictions" includes participating states and other jurisdictions such as the District of Columbia and the Department of Defense Dependents Schools.]

**Major Infrastructure Projects.** Several major public sector-sponsored construction projects are underway in the Boston region, providing significant economic and employment benefits to the state.

The "Big Dig," the world's largest highway project, includes the depression of the central artery which traverses the City of Boston, and the construction of a third harbor tunnel linking downtown Boston to Logan Airport. The new Central Artery is designed to meet Boston's future traffic demand and is anticipated to carry 245,000 vehicles per day by 2010 with minimal congestion. The Project will also strengthen connections among Boston's air, rail, and seaport terminals. By offering travelers and shippers increased choice and flexibility among these different modes of transportation, the Project is contributing to the creation of an integrated, intermodal transportation system for the entire region. The Ted Williams Tunnel, which stretches under Boston Harbor from South Boston to Logan Airport, opened to commercial traffic in late 1995 and to all traffic in December 2001, and will carry an estimated 98,000 vehicles daily in 2010. The Central Artery Project is due to be completed by 2005 at an estimated total cost of \$14.63 billion, with nearly half funded by the federal government. More than \$1.5 billion of the state's share of future federal funding is slated to go toward the Big Dig until 2012. As of April 4, 2004, construction is 93.5 percent complete.

The \$385 million Route 3 North project improves safety and travel along the Route 3 highway mainline and the adjacent roadways. Route 3 North is 21 miles in length from the Route 128 interchange in Burlington to the New Hampshire border. Initial survey and sub-surface work commenced along the Route 3 corridor in the fall of 2000 and the total project is estimated to take 42 months to complete. This design-build project includes adding a travel lane and two 10' shoulders in each direction, the replacement of 47 bridges, a park and ride facility as well as various environmental improvements.

The MBTA Silver Line project creates the first new MBTA rapid transit line in 90 years. The Silver Line is a state-of-the-art Bus Rapid Transit (BRT) system. This transit line is being completed in three phases. The first and second segments are being introduced as two, separate BRT lines: Silver Line Phase I, which has been open since 2002, travels along Washington Street between Dudley Square and Downtown; and Silver Line Phase II, now under construction and set to open in 2004, will run underground from South Station to the South Boston Waterfront and continue aboveground to the Boston Convention and Exhibition Center, Marine Industrial Park, and Logan Airport. The third phase, Silver Line Phase III, which is currently in design, will link Phases I and II. When the final phase has been completed, all three segments will connect to become the MBTA's fifth rapid transit line. It will offer a seamless link between the communities of Roxbury, the South End, Chinatown, Downtown, and South Boston. More than \$450 million has been invested in the Washington Street corridor in both commercial and residential development projects.

The MBTA Greenbush project will restore commuter rail service on the existing right-of-way known as the Greenbush corridor through the towns of Braintree, Weymouth, Hingham, Cohasset and Scituate, Massachusetts. The project begins at the connection with the existing MBTA Old Colony Main Line at the Braintree Wye in East Braintree, and extends 18 miles easterly along the former New Haven Railroad Greenbush Branch to the terminus in the Greenbush section of Scituate. Notice to proceed for design was issued in April of 2002 and the project is targeted for completion in June of 2006.

The Massachusetts Executive Office of Transportation and Construction's Lawrence Gateway Project, generally regarded as an integral step in the renaissance of this historic mill city, will offer 1.2 million square feet of cost-effective, quality office space in the mills along the Merrimack River and the canal district, as well as dramatically improved access to Routes 495, 93 and 95.

On February 10, 2004, the governor filed a \$1.15 billion bill for capital transportation spending that guarantees the state will invest at least \$400 million every year in upgrading the Commonwealth's roads and bridges until the year 2012. The 2004 Transportation Bond Bill will provide three years worth of new capital authorization for critical transportation priorities. Funding provisions in the Bond Bill include \$425 million for federally assisted transportation projects to support the road and bridge program, \$300 million for Chapter 90 local aid, \$210 million for non-federally assisted roadway projects, \$102 million to protect rail freight properties and to provide capital assistance to Regional Transit Authorities (RTAs) and \$23 million for various local grant programs.

The Massachusetts Port Authority (Massport) owns and operates Logan International Airport, Hanscom Field, Worcester Regional Airport, the Port of Boston, and several smaller assets. Logan Airport is undergoing a more than \$4 billion modernization program that will result in improved access, modern facilities, and the latest customer amenities. In addition, Massport, which owns and operates Logan Airport, has been nationally-recognized for being the first U.S. airport authority to design and build an inline 100% bag screening system, deploy an anti-terrorism unit armed with submachine guns and hand held wireless computers, and implement behavior profiling to spot potential terrorists.

The Port of Boston has instituted port optimization, which consolidated all container operations at Conley Terminal in South Boston, where Massport invested \$50 million in four post-Panamax cranes, deeper berths and a modern, timesaving 10-lane gate facility. At the same time, Moran Terminal was transformed into Boston Autoport, a state-of-the-art facility that can offload 400 cars an hour and process over 100,000 cars a year. It increased warehousing by replacing two unused cargo buildings with a 200,000-square-foot warehouse and cargo transfer facility in South Boston, International Cargo Port Inc. Harbor dredging is now underway and, when complete, will improve navigation and safety, reduce cargo handling costs and further control product costs to New England businesses and consumers. It introduced value-added services for customers, such as the Harbor Maintenance Tax, which provides a dollar-for-dollar tax credit for shippers using the Port of Boston. It anticipates the expansion of 120,000 square feet of rehabilitated space to respond to increased demands by cruise lines and their passengers at the Black Falcon Cruise Terminal.

