THE STATE OF WORKING MASSACHUSETTS 2006
As the Economy Moves Forward, Wages Fall Back

EXECUTIVE SUMMARY

Though it is now nearly five years since the end of the 2001 recession, Massachusetts continues to struggle economically. Despite gains since the end of 2003, employment in Massachusetts is still lower today than at either the beginning or the end of that recession; indeed, the Commonwealth is one of only six states for which this is the case. Perhaps even worse, wages in Massachusetts, after adjusting for inflation, have dropped across the labor force over the last few years. In particular, the median hourly wage – that is, the wage earned by the typical Massachusetts worker – fell close to 5 percent between 2003 and 2005, the largest decline in the country during that period and the largest two-year decline in Massachusetts in at least twenty-five years.

This report – the third edition of the Massachusetts Budget and Policy Center’s State of Working Massachusetts – examines these and other trends in employment, in labor force demographics, and in wages, incomes, and poverty. This edition, like prior editions, is based largely on U.S. Census Bureau and other data compiled by the Economic Policy Institute, a non-partisan research organization based in Washington, DC, for its more comprehensive State of Working America.

Among the major findings of The State of Working Massachusetts 2006 are the following:

**Employment**

- Employment in Massachusetts has grown in a relatively sustained fashion over the past two and a half years, but the rate of growth has been so slow that the level of employment in Massachusetts remains below what it was at both the start and the finish of the 2001 national recession. Overall, employment in Massachusetts, as of June 2006, was 4.2 percent below its level when the recession began in March 2001 – a difference of 142,700 jobs. Moreover, employment was still 1.8 percent below where it was when the recession ended in November 2001 – the equivalent of 57,600 jobs lost.

- Massachusetts’ experience in recovering from this latest recession stands in sharp contrast with its experience in recuperating from the recession of the early 1990s. Job losses were somewhat sharper during the early 1990s, but, by this point in the 1990s economic cycle, the Commonwealth had completely restored all of the jobs it had lost since that recession began. At the current pace of job growth (an annualized rate of 1.2 percent between September 2005 and June 2006), Massachusetts would not replace all of the jobs it has lost since the start of the 2001 recession until March 2010.
Massachusetts is just one of nine states that failed to register a net gain in employment between the start of the national recession in March 2001 and June 2006; it is one of only six states that failed to register a net employment gain between the end of the recession in November 2001 and June 2006. In fact, of the states in these two groups, only Michigan and Louisiana have experienced deeper job losses than Massachusetts since 2001.

Employment trends have varied widely by sector since 2001. Employment in two sectors – the education and health services sector and the so-called “other services” sector – rose during both the 2001 recession and its immediate aftermath and have continued to climb during the Commonwealth’s more general recovery since December 2003. In fact, employment in the education and health services sector, as of June 2006, was up 8.5 percent or by 46,800 jobs since March 2001. Employment in three sectors – information, manufacturing, and trade, transportation, and utilities – fell both during and after the national recession and declined further between December 2003 and June 2006. For both manufacturing and information, the overall decline in employment since March 2001 is close to 25 percent, with manufacturing employment dropping by 98,000 jobs between March 2001 and June 2006 and information employment declining by 28,800 jobs.

The education and health services sector continued to account for the single largest share of employment in Massachusetts in 2005, as it employed 589,100 people or 18.4 percent of the entire employed population in the Commonwealth that year. Employment in the trade, transportation, and utilities sector made up the second largest share of total non-farm employment while the third largest share was attributable to the professional and business services sector.

Massachusetts had the second highest concentration of employment in the education and health services sector in the country in 2005. Only Rhode Island, where education and health services employment comprised 19.4 percent of total employment, exceeded the Commonwealth’s 18.4 percent mark. In addition, Massachusetts’ concentration of employment in the information, financial activities, and professional and business services sectors each ranked ninth in the nation in 2005; Massachusetts’ standing in these sectors is likely reflective of the high educational attainment of its labor force.

The fourth largest sector in Massachusetts – government – was much smaller than in most other states. In fact, out of the fifty states in 2005, government’s share of total employment was smallest in Massachusetts. Within Massachusetts, government employment accounted for 12.9 percent of total employment. Nationwide, it comprised 16.3 percent of total employment.

The prominence of the manufacturing sector has declined sharply over the last decade and a half. As recently as 1990, 485,700 people were employed in the manufacturing sector in Massachusetts, making it the second largest sector in the Commonwealth, with 16.3 percent of the employed population at the time. By 2005, manufacturing employment comprised just 9.6 percent of total non-farm employment, leaving the sector ranked fifth out of ten and only slightly larger than the leisure and hospitality sector, which now accounts for 9.1 percent of total employment.
Labor Force Demographics

- Data on the demographic composition of the Massachusetts labor force indicate that it is more balanced between men and women and is better educated than the overall US labor force, but is less ethnically and racially diverse and is somewhat older. In 2005, women made up 48.0 percent of the Massachusetts labor force, compared to 46.4 percent for the United States as a whole. Similarly, with the exception of the District of Columbia, the share of the Massachusetts labor force holding at least an undergraduate degree was the largest in the country in 2005. With more than 40 percent of its labor force having earned a bachelor’s degree or higher, the Commonwealth was higher than New Jersey, Maryland, and Connecticut, each of which had labor forces in which over 35 percent of workers held at least an undergraduate degree.

- The differences in the makeup of the Massachusetts’ and United States’ labor forces reflect, in part, changes that have occurred here in the Commonwealth over the last fifteen years. Since 1991, the Massachusetts labor force has become better educated, but has grown older as well. In 1991, less than a third of the workforce held at least an undergraduate degree; by 2005, more than two out of every five workers had earned at least a bachelor’s degree. In 1991, only about 12 percent of the workforce was over the age of 55; by 2005, just above 17 percent was part of that age group.

Wages, Incomes, and Poverty

- Real hourly wages have dropped noticeably for low-, middle- and high-wage workers in Massachusetts since 2003. The hourly wage earned by a worker at the 20th percentile in the wage distribution fell 3.8 percent between 2003 and 2005, shrinking from $10.49 per hour to $10.09 per hour. (These figures are in constant 2005 dollars.) The median (or 50th percentile) hourly wage declined from $17.19 per hour to $16.35 per hour over this period, a drop of 4.9 percent. The 80th percentile wage moved from $29.72 per hour to $28.83 per hour, a loss of about 3.0 percent. While the median wage was still higher in 2005 than it was in 2001, its decline since 2003 is worthy of attention, as it represents the largest two year drop in the median wage in Massachusetts since at least 1981.

- The declines in hourly wages in Massachusetts between 2003 and 2005 were among the worst in the country; in fact, the median wage in Massachusetts dropped more over this period than in any other state in the nation. From 2003 to 2005, the 20th percentile wage in Massachusetts fell more than twice as far as the 20th percentile wage did nationally. Only 10 other states between 2003 and 2005 experienced a larger fall in their 20th percentile wages than Massachusetts. Worse still, the drop in the median wage in Massachusetts was four times larger than the comparable national change.
Over the longer term, wage growth in Massachusetts has been highly unequal. Wages for workers at the 80th percentile grew from $19.98 per hour in 1979 to $28.83 in 2005, an increase of 44.3 percent. (These figures are in constant 2005 dollars.) Over the same period, the median hourly wage rose 27.1 percent, from $12.86 per hour in 1979 to $16.35 in 2005. The improvement in wages for workers near the bottom of the distribution was smaller still, as the 20th percentile wage climbed 16.8 percent between 1979 and 2005, going from $8.64 per hour to $10.09 per hour. Thus, over a roughly twenty-five year span, low-wage workers saw their hourly wages climb less than $1.50 in total.

For the 2003-2005 period, the average median household income in Massachusetts was $54,617 or roughly 19 percent higher than the national average median household income of $46,038. Only five other states – New Jersey, Maryland, New Hampshire, Hawaii, and Connecticut – had average median household incomes above Massachusetts over this time frame. Since the end of the national recession, though, the median household income in Massachusetts has failed to register any real gains. For the 2000-2001 period, the median household income in Massachusetts was $55,311. By the 2004-2005 period, it stood at $54,888, a change that is not statistically significant.

Despite the Commonwealth’s relative affluence among the states, the gap between low- and high-income families in Massachusetts is now larger than in nearly four out of every five states (based on data for 2001-2003, the most recent year for which such information is available on a state by state basis). The ratio of the average income for families in the wealthiest fifth of the income distribution to the average income for families in the poorest fifth in Massachusetts was 7.3:1 for the 2001-03 period. This degree of inequality is the 11th highest in the United States.

Moreover, the gap between low- and high-income families in Massachusetts has grown considerably wider over time. The change in the ratio of the average incomes for the wealthiest and poorest fifth of families in Massachusetts was the third highest in the nation from the start of the 1980s to the beginning of this decade.

Given that incomes in Massachusetts have been stagnant since the start of the decade, the Commonwealth’s lack of progress in reducing the extent of poverty should come as little surprise. For 2000-2001, the period during which the national economic recovery began, the poverty rate in Massachusetts was 9.4 percent; for 2004-2005, it was 9.7 percent. This apparent increase is not statistically significant, meaning that, given the size of the sample used, there is no measurable change between the two points in time.
INTRODUCTION

Throughout fiscal year 2006, one key economic indicator – the amount of taxes collected in Massachusetts – regularly exceeded expectations, surpassing forecasts in eight out of twelve months and ending the year roughly 6 percent higher than officials anticipated at its start. Such seemingly positive results have led, on the one hand, to calls for a further reduction in Massachusetts’ personal income tax rate, and on the other, to appeals for further restorations of funding for essential public services cut since fiscal year 2002.

Yet, the apparent strength of the Commonwealth’s tax collections is, in some respects, at odds with the performance of the broader Massachusetts economy. To be sure, employment has grown over the last thirty months or so, but Massachusetts still has fewer jobs today that at either the beginning or at the end of the 2001 national recession. Moreover, the rate of employment growth since the end of 2003 has been substantially slower in Massachusetts than in most other states.

Similarly, the Commonwealth’s unemployment rate remains markedly higher than it was in 2001; more inclusive measures of employment – Massachusetts’ labor force participation rate and its employment to population ratio – have deteriorated since that time as well.

Perhaps most troublingly of all though, wages in Massachusetts, after adjusting for inflation, have dropped across the labor force over the last few years, while incomes have stagnated. In particular, the median hourly wage – that is, the wage earned by the typical Massachusetts worker – fell close to 5 percent between 2003 and 2005. That decline constitutes not only the most sizable drop in the country over that span, but also the largest two-year decline in the median wage in Massachusetts since at least 1981. The latest data from the federal government suggest that incomes have made no real improvements in Massachusetts in recent years, as the median household income in the Commonwealth has failed to register any meaningful gains, either since the start of the national economic recovery or over the most recent one year period for which such data are available. In addition, the distribution of both wages and incomes is far less equal in Massachusetts than in most states, as the gains from economic growth have not been evenly shared over the last two to two and a half decades.

This report – the third edition of the Massachusetts Budget and Policy Center’s State of Working Massachusetts – examines trends in employment, in labor force demographics, and in wages and incomes in more detail. It finds that, although some economic indicators may be on the rise, the Commonwealth’s economy continues to lag behind the rest of the country. This edition of State of Working Massachusetts, like prior editions, is based largely on U.S. Census Bureau and other data compiled by the Economic Policy Institute, a non-partisan research organization based in Washington, DC, for its more comprehensive State of Working America. Portions of prior editions, such as the glossary on labor force statistics, are reproduced in this edition.
EMPLOYMENT

For much of the past five years, the story of the Massachusetts economy has been a story about employment, as the Commonwealth suffered the largest job losses in the nation during the recession of 2001 and continued to experience substantial employment declines in its immediate aftermath. Employment has been on the rise since the end of 2003, but the preceding drop was so sharp and the ongoing rebound has been so modest that Massachusetts, as of June, was one of only nine states that had yet to return to pre-recession employment levels.

This pattern of sharp employment declines and modest recoveries has not held across all sectors of the Massachusetts economy, however. Employment in the education and health services sector has grown fairly steadily in Massachusetts since the national recession began in March 2001, while employment in the manufacturing and information sectors has receded with nearly equal constancy over the same period. Unfortunately, where things were bad in Massachusetts, they were worse than almost anywhere else and, where they were good, they were still bad in a comparative context – the losses in manufacturing and information employment in Massachusetts over the last five years were virtually unrivaled in the United States, while the gains in education and health services were surpassed by nearly every other state.

As a result of these trends, the education and health services sector is now the largest employer in Massachusetts, while the manufacturing sector, one of the more prominent sectors in the Commonwealth in the past, is today merely the fifth largest out of ten and in danger of being surpassed by the leisure and hospitality sector. In fact, Massachusetts now has the second highest concentration of employment in the education and health services sector in the country; at the opposite end of the spectrum, government employment’s share of total employment is smaller in Massachusetts than in any other state.

On a more positive note, the Commonwealth has comparatively high concentrations of employment in the information, financial activities, and professional and business services sectors, which is, in turn, likely reflective of the Commonwealth’s well-educated workforce. Importantly, weekly wages in each of these three sectors are not only higher than the average weekly wage within Massachusetts, but are also higher than the average weekly wage within these sectors nationally.1

Aggregate Employment Trends

As of June 2006, total non-farm employment in Massachusetts was 3,222,800 jobs. While that level of employment is the result of relatively sustained employment growth over the past two and a half years, the rate of growth has been so slow that the level of employment in Massachusetts remains below what it was at both the start and the finish of the 2001 national recession.

1 For example, preliminary data for 2005 from the U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages show that the average weekly wage within the financial activities sector was $1,238 nationally and $1,707 in Massachusetts.
As Figure 1 suggests, the overall trend in employment in Massachusetts since the beginning of the national recession can be separated into three periods: (1) the recession itself, which lasted from March through November 2001; (2) the nearly two-year period immediately following the end of the recession, during which, in the aggregate, employment continued to decline in Massachusetts; and (3) the period from December 2003 until the present, during which employment has started to rise once again, albeit modestly. Specifically, over the course of the 2001 national recession, total employment in Massachusetts fell from 3.37 million to 3.28 million jobs, a drop of 2.5 percent. After the recession officially ended, employment in Massachusetts maintained its downward trend, sinking another 3.5 percent to 3.17 million jobs by December 2003. Employment climbed 1.8 percent between December 2003 and June 2006, rising by 55,700 jobs to 3.22 million.

This more recent upswing, though, has not been enough to bring employment in Massachusetts back to either its level at the start of the recession or even at the end of the recession. Overall, employment in Massachusetts, as of June 2006, was 4.2 percent below its March 2001 level – a difference of 142,700 jobs. Moreover, employment was still 1.8 percent below where it was when the recession ended – the equivalent of 57,600 jobs lost.

Consequently, Massachusetts’ experience in recovering from this latest recession stands in sharp contrast with its experience in recuperating from the recession of the early 1990s. As Figure 2 demonstrates, job losses were somewhat sharper during the early 1990s, but, by this point in the 1990s economic cycle, the Commonwealth had completely restored all of the jobs it had lost since that recession began. The early 1990s recession officially began in July 1990 and reached its deepest point in April 1992, when total non-farm employment in Massachusetts was 6.5 percent below its July 1990 level. Yet, by August 1995, 61 months later, all of the jobs lost since
July 1990 had been replaced. As of June 2006, the Commonwealth was more than 61 months into this latest economic cycle, but, as Figure 2 makes clear, it is still some distance from replacing all of the jobs lost since March 2001. Indeed, at the current pace of job growth (an annualized rate of 1.2 percent since September 2005), Massachusetts would not reach its March 2001 level of employment until March 2010; for employment to return to its March 2001 level by this time next year, it would have to grow at an annualized rate of 3.5 percent between June 2006 and September 2007.

Figure 2.

[Comparison of Recessions and Recoveries in MA graph]

Massachusetts is certainly not alone in its struggles to rebound from the 2001 recession. The national recovery has been one of the more anemic in the post-war era. Lee Price, in a March 2006 paper entitled *The Boom that Wasn’t*, observes that:

> By virtually every measure, the economy has performed worse in this business cycle than was typical of past ones, including that of the early 1990s... In fact, over the last four-and-a-half years, nearly every indicator – from job gains to economic output to spending – have fallen far short when stacked against comparable periods in past cycles.²

An August 2006 study from the Center on Budget and Policy Priorities reaches a similar conclusion, finding that:

… a broad range of economic indicators . . . indicates that this economic recovery has not been especially robust. To the contrary, relative to economic periods in the past, the current recovery has, on balance, been somewhat weaker than average.  

Of note, one of the few exceptions to this generally dismal picture is the rise in corporate profits. As the Center on Budget and Policy Priorities’ study observes:

The current period has strongly outperformed the average post World War II recovery period in only one area: corporate profits, which have grown much more rapidly than average.

More specifically, according to the study, corporate profits have climbed 14.4 percent per year during the current recovery, compared to an annual growth rate of 6.8 percent on average during prior recoveries.

Nevertheless, the country as a whole and, in particular, the vast majority of states have not only recovered all of the jobs they may have lost since the 2001 recession ended, but are now above pre-recession employment levels. As of June 2006, national employment was 135.2 million jobs or about 2.1 percent higher than it was in March 2001. Moreover, as Figure 3 shows, 41 of the 50 states registered net employment gains between March 2001 and June 2006. Only Mississippi, Kansas, Connecticut, New York, Illinois, Ohio, Massachusetts, Michigan, and Louisiana have yet to return to their pre-recession employment levels. What’s more, just six of those nine states – Connecticut, Illinois, Ohio, Massachusetts, Michigan and Louisiana – continue to suffer from net declines in employment since the end of the national recession. Of the states in these two groups, only Michigan and Louisiana have experienced deeper job losses than Massachusetts since 2001. (As noted earlier, total employment in Massachusetts declined 4.2 percent between March 2001 and June 2006 and 1.8 percent between November 2001 and November 2006. For Michigan, the comparable declines were 4.9 percent and 2.7 percent; for Louisiana, they were 7.9 percent and 7.1 percent.)

While employment in Massachusetts has rebounded somewhat since December 2003, employment growth in Massachusetts has still been lower than in most states during that time period. From December 2003 to June 2006, Massachusetts employment rose at an annual rate of 0.7 percent, the 7th slowest rate among the fifty states. Over the same period, employment in Nevada – far and away the fastest growing state in recent years – expanded at a 6.0 percent annual rate. The median annualized state employment growth rate over this period was 1.6 percent.

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4 Ibid., p. 2.
Figure 3.

State by State Employment Changes, 2001 to 2006

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<th>State</th>
<th>Change since start of 2001 recession</th>
<th>Change since end of 2001 recession</th>
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**United States**
- +2.1% since recession's start
- +3.3% since recession's end

**Massachusetts**
- -4.2% since recession's start
- -1.8% since recession's end
Employment Trends by Sector

In the aggregate, the trend for employment in Massachusetts since 2001 is clear. The number of jobs dropped substantially both during and immediately after the national recession, but has risen at a steady but slow pace over roughly the last thirty months. That trend has not been uniform across each of the constituent parts of the Massachusetts economy however, as employment patterns have varied widely among the Commonwealth’s ten major economic sectors. (Please refer to the accompanying text box for a description of these ten sectors.)

As Figure 4 indicates, employment in two sectors – the education and health services sector and a sector the Bureau of Labor Statistics categorizes as “other services” – rose both during the 2001 recession and its immediate aftermath and have continued to climb during the Commonwealth’s more general recovery since December 2003. In fact, employment in the education and health services sector, as of June 2006, was up 8.5 percent or by 46,800 jobs since March 2001.

Figure 4.

Changes in Massachusetts Employment by Industry, 2001 - 2006

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<tbody>
<tr>
<td>Education and Health Services</td>
<td>549.8</td>
<td>559.4</td>
<td>567.7</td>
<td>576.4</td>
<td>585.7</td>
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<tr>
<td>Leisure and Hospitality</td>
<td>537.0</td>
<td>564.0</td>
<td>571.3</td>
<td>580.0</td>
<td>589.0</td>
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<tr>
<td>Other Services</td>
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<td>116.5</td>
<td>116.8</td>
<td>117.0</td>
<td>117.3</td>
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<td>Construction and Mining</td>
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<td>149.6</td>
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<td>Financial Activities</td>
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<td>239.2</td>
<td>235.2</td>
<td>231.0</td>
<td>227.0</td>
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<tr>
<td>Government</td>
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<td>420.5</td>
<td>416.2</td>
<td>412.0</td>
<td>408.2</td>
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<tr>
<td>Trade, Transportation, and Utilities</td>
<td>597.0</td>
<td>585.8</td>
<td>573.4</td>
<td>561.0</td>
<td>549.0</td>
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<tr>
<td>Professional and Business Services</td>
<td>503.4</td>
<td>465.4</td>
<td>484.2</td>
<td>503.0</td>
<td>522.0</td>
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<tr>
<td>Manufacturing</td>
<td>494.2</td>
<td>369.2</td>
<td>314.7</td>
<td>306.2</td>
<td>298.0</td>
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<tr>
<td>Information</td>
<td>116.3</td>
<td>105.4</td>
<td>88.7</td>
<td>75.7</td>
<td>62.7</td>
</tr>
<tr>
<td>Total Nonfarm Employment</td>
<td>3,365.5</td>
<td>3,280.4</td>
<td>3,167.1</td>
<td>3,222.8</td>
<td>(85.1)</td>
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Aggregate Change (Amount & Percentage)

- Education and Health Services: 18.9% or 46,800 jobs
- Leisure and Hospitality: 5.7% or 12,500 jobs
- Other Services: 3.0% or 4,500 jobs
- Construction and Mining: 6.4% or 12,500 jobs
- Financial Activities: 4.0% or 6,200 jobs
- Government: 3.6% or 15,700 jobs
- Trade, Transportation, and Utilities: 26.6% or 12,500 jobs
- Professional and Business Services: 28.7% or 12,500 jobs
- Manufacturing: 3.8% or 12,500 jobs
- Information: 4.3% or 12,500 jobs
- Total Nonfarm Employment: 18.9% or 46,800 jobs

In contrast, employment in three sectors – information, manufacturing, and trade, transportation, and utilities – fell both during and after the national recession and declined further between December 2003 and June 2006. For both manufacturing and information, the overall decline in employment since March 2001 is close to 25 percent, with manufacturing employment dropping by 98,000 jobs between March 2001 and June 2006 and information employment declining by 28,800 jobs. In the latter instance, this precipitous decline may in part be attributable to the nearly as steep jump in employment in the sector between 1999 and 2001, when the “dot com boom” reached its height.
What’s in a Name? An Explanation of Economic Sectors

The employment data in this section are based on the Current Employment Statistics (CES) survey jointly conducted by the US Bureau of Labor Statistics (BLS) and state employment security agencies. The BLS generally classifies employment into eleven sectors or industries. This report uses ten sectors – combining the BLS’ construction and natural resources and mining sectors into a single sector – in order to make comparisons among the fifty states. A brief description of each sector, based on BLS’ Industry at a Glance profiles, is below. For more detailed information on each sector, see: [http://www.bls.gov/iag/iaghome.htm](http://www.bls.gov/iag/iaghome.htm).

**Construction, Natural Resources, and Mining** – This sector consists of a wide range of establishments and includes those engaged in growing crops, raising livestock, cutting timber, and extracting minerals and gases, as well as those constructing new buildings, renovating or altering old ones, and conducting various engineering projects. Some of the most common occupations in this sector are farm workers, nursery and greenhouse laborers, and carpenters.

**Manufacturing** – As BLS defines it, the manufacturing sector is comprised of “establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.”

**Trade, Transportation, and Utilities** – This sector encompasses not only businesses selling merchandise on a wholesale or retail basis, but also businesses providing transportation services (of passengers or cargo or for tour groups) as well as those providing electrical power, natural gas, or water. Among the most common occupations in this sector are truck drivers, sales representatives, and retail clerks.

**Information** – According to the BLS, the “main components of this sector are the publishing industries … the motion picture and sound recording industries; the broadcasting industries … telecommunications industries … Internet service providers and … data processing industries ….” Customer service representatives are the most common type of employee in this sector.

**Financial Activities** – This sector combines the finance and insurance sub-sector, which principally handles financial transactions (such as bank deposits, insurance underwriting, and the purchase and sale of financial assets), with the real estate and rental leasing sub-sector, which is responsible for the renting and leasing of both tangible and intangible assets. Tellers and maintenance repair workers make up the most common occupations in each sub-sector respectively.

**Professional and Business Services** – This sector consists of three types of establishments: (1) those that perform professional and technical activities such as accounting, engineering, advertising, or consulting; (2) those that manage companies or enterprises; and (3) those that provide “support activities for the day-to-day operations of other organizations” such as clerical or janitorial services.

**Education and Health Services** – This sector is comprised of establishments that provide instruction and training as well as those that offer health care and social assistance. Only privately-owned establishments fall in this sector; publicly-owned establishments that provide education or health services are included in government. Elementary school teachers and registered nurses are the most common jobs within this sector.

**Leisure and Hospitality** – This sector consists of establishments that provide accommodation or food services or that offer recreational or cultural activities (such as amusement parks, museums, or concert venues). Waiters and waitresses are the most common employees in this sector.

**Other Services** – This sector is made up of service-sector establishments that are generally not otherwise classifiable and includes, among other enterprises, drycleaners, parking garages, and repair shops.

**Government** – This sector includes federal, state, and local government agencies; it includes public schools as well as public hospitals, but excludes non-civilian employment. The most common occupation within government is police or sheriff’s officer.
While this disaggregation of the overall trend in employment in Massachusetts provides some insight into the sources of the Commonwealth’s economic struggles, comparing sector-by-sector employment trends in Massachusetts to sector-by-sector trends nationally helps to explain those difficulties still further. As Figure 5 demonstrates, those sectors that added jobs in Massachusetts between March 2001 and June 2006, such as education and health services, generally did not add as many jobs (in percentage terms) as the same sectors did nationally. In addition, those sectors that experienced employment declines in Massachusetts – information and manufacturing chief among them – suffered much sharper drops than the same sectors nationwide. For instance, as noted above, education and health services employment rose by 8.5 percent in Massachusetts between March 2001 and June 2006; it climbed 14.5 percent for the United States as a whole over the same time period. Conversely, while manufacturing employment shrank 15.8 percent across the United States between the start of the 2001 recession and June 2006, it contracted even more in Massachusetts – by 24.2 percent.

Moreover, in eight out of the ten sectors presented in Figure 5, Massachusetts, out of the fifty states, ranked 45th or lower in terms of job growth between March 2001 and March 2006.5 For example, over this five-year span, employment in Massachusetts in the manufacturing, professional and business services, and financial activities sectors dropped 24.7 percent, 8.1 percent, and 3.4 percent respectively; in each case, that change left Massachusetts ranked 49th, with just a single state witnessing larger declines in each sector. Total government employment

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5 These state-by-state comparisons of employment growth within specific sectors are made over the period from March 2001 to March 2006 rather than from March 2001 to June 2006 because seasonally adjusted data for each sector are not available for every state. Therefore, non-seasonally adjusted data are used to make these comparisons. Accordingly, comparisons must be made from the same month in one year to the same month in another year to ensure that any seasonal variation in the data does not distort them.
in Massachusetts (which includes state and local government as well as federal employment) fell 3.6 percent between March 2001 and March 2006. No state in the nation experienced a more sizable decline during this period; in fact, 45 out of the 50 states saw increases in government employment over this timeframe. Even growth in the education and health services sector in Massachusetts – which, at 7.9 percent, had the largest jump in employment in the Commonwealth between March 2001 and March 2006 – was the 47th slowest in the country.

Composition of Employment

The education and health services sector accounted for the single largest share of employment in Massachusetts in 2005, as it employed 589,100 people or 18.4 percent of the entire employed population in the Commonwealth that year. As Figure 6 shows, employment in the trade, transportation, and utilities sector made up the second largest share of total non-farm employment, providing jobs to 570,100 people in 2005, the equivalent of 17.8 percent of the employed population. The third largest share was attributable to the professional and business services sector, which constituted 14.4 percent of total employment and employed 460,500 people. Thus, taken together, these three sectors comprise just over half of total employment in Massachusetts.

While the prominence of these three sectors is quite clear in Figure 6, also notable is the decline of the manufacturing sector in Massachusetts. As recently as 1990, 485,700 people were employed in the manufacturing sector in Massachusetts, making it the second largest sector in the Commonwealth, with 16.3 percent of the employed population. By 2005, manufacturing employment comprised just 9.6 percent of total non-farm employment, leaving the sector ranked fifth out of ten and only slightly larger than the leisure and hospitality sector, which now accounts for 9.1 percent of total employment.

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6 Within the education and health services sector, approximately 25.5 percent of employment – or 150,500 jobs – is classified as educational services, while the remaining 74.5 percent – the equivalent of 483,600 jobs – falls in health care and social assistance. Colleges and universities stand as the largest employer in the former subsector – providing 17.6 percent of all employment within the educational and health services sector, while hospitals constitute the largest employer in the latter, accounting for 27.2 percent of employment within the entire sector; on its own, hospital employment – at 160,500 people – exceeded employment in three other sectors in Massachusetts in 2005.

7 More than three-fifths (62.4 percent) of employment within the trade, transportation, and utilities sector is in the retail subsector, which provided jobs to 355,700 workers in 2005. Employment in wholesale trade comprised 23.2 percent of employment in this sector in 2005, with employment in transportation and utilities making up the remaining 14.4 percent.

8 In 2005, over half (50.3 percent) of employment in the professional and business services sector fell within the professional, scientific, and technical services subsector, according to the Bureau of Labor Statistics (BLS). This subsector includes such occupations as attorneys, accountants, architects, engineers, and consultants and provided jobs to 231,700 workers in 2005. Slightly more than 14 percent of employment the professional and business services sector consisted of company and enterprise managers, while just over a third (35.5 percent) of employment in the sector consisted of jobs in the BLS’ administrative and support and waste management and remediation services subsector.
The long-term decline in manufacturing has persisted despite the enactment, in 1995, of a significant tax cut for manufacturing companies. Known as the “single sales factor apportionment formula,” that tax cut altered the manner in which Massachusetts’ corporate income tax is determined for manufacturing companies and was justified on the grounds that it would remove an impediment to employment growth in the Commonwealth’s manufacturing sector. Indeed, in the view of its proponents, “single sales factor” was “a bold step towards restoring Massachusetts as a manufacturing state.” Yet, as Figure 7 makes clear, the single sales factor apportionment formula (designated as “SSF” in the figure) has neither led to a rebirth of the manufacturing sector nor halted its demise. Rather, it has produced hundreds of millions in dollars in revenue losses. According to the Department of Revenue the presence of a single sales factor apportionment formula for manufacturers was expected to reduce corporate income taxes by $51.7 million in FY 2006 alone.

9 “Corporate Tax Breaks Approved,” Boston Globe, November 16, 1995, p. 45
Figure 7.

Manufacturing Employment in Massachusetts, 1990 - 2006

- November 1995: SSF enacted 418,400 jobs
- January 2001: SSF fully implemented 409,200 jobs
- June 2006: 306,200 jobs

Figure 8.

Composition of Employment in Massachusetts and the United States, 2005

<table>
<thead>
<tr>
<th>Sector</th>
<th>Massachusetts Share of Total Non-Farm Employment</th>
<th>United States Share of Total Non-Farm Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education, Health Services</td>
<td>16.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Trade, Transport &amp; Utilities</td>
<td>12.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Professional, Business Services</td>
<td>12.0%</td>
<td>12.0%</td>
</tr>
<tr>
<td>Govt</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>8.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Leisure, Hospitality</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Construction, Mining</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Other Services</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Information</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
The same three sectors that play such a dominant role in the Massachusetts economy – at least from the perspective of employment – occupy much the same position in the United States economy as well, as Figure 8 evinces. Employment in the education and health services sector, the trade, transportation, and utilities sector, and the professional and business services sector – that is, the three largest sectors in terms of employment in Massachusetts – held the third, first, and fourth spots nationally.

The fourth largest sector in Massachusetts – government – was much smaller than in most other states. In fact, out of the fifty states in 2005, government’s share of total employment was smallest in Massachusetts. Within Massachusetts, government employment accounted for 12.9 percent of total employment. Nationwide, it comprised 16.3 percent of total employment, rendering it the second largest sector for the country as a whole.

Examining the composition of employment in each state reveals other important differences. For instance, Massachusetts had the second highest concentration of employment in the education and health services sector in the country in 2005. Only Rhode Island, where education and health services employment comprised 19.4 percent of total employment, exceeded the Commonwealth’s 18.4 percent mark. In addition, Massachusetts’ concentration of employment in the information, financial activities, and professional and business services sectors each ranked ninth in the nation in 2005; Massachusetts’ standing in these particular sectors is likely reflective of the high educational attainment of its labor force, a characteristic that will be discussed more later in this report. At the opposite end of the spectrum, while the trade, transportation, and utilities sector is a relatively large employer in the Commonwealth, its share of employment here was only the 46th largest out of the fifty states, indicating that it is even more essential to other states. Indeed, in seventeen other states, it accounts for at least one out of every five jobs.

As will be detailed later in this report, since 2003, after adjusting for inflation, wages have fallen throughout the Commonwealth’s labor force. This, in turn, may be partially attributable to changes in the composition of employment since the start of the decade. As Figure 6 above indicates, the concentration of employment in the manufacturing sector has dropped substantially since 2000, while the concentration of employment in the education and health services sector and, to a lesser extent, the leisure and hospitality sector has risen. This has, to some extent, led to the replacement of relatively high-wage jobs with comparatively low-wage ones, as Figure 9 suggests. In 2005, the average weekly wage in the manufacturing sector was $1,202, while, in the education and health services and leisure and hospitality sectors, it was $852 and $379 respectively. While there is obvious variation in weekly wages within sectors – the average weekly wage for a physician is considerably above the $852 mark for the education and health services sector as a whole – this may be a factor in the broader wage trends the Commonwealth has seen of late. In addition, some of the sectors within Massachusetts that have grown since 2001 – namely, the leisure and hospitality sector and the other services sector – and that, by extension, now compose a slightly larger share of employment in the Commonwealth, have seen wage declines over the same period. For instance, data from the Massachusetts Department of Workforce Development show that, after adjusting for inflation, the average weekly wage in the leisure and hospitality sector fell about 1.0 percent between 2001 and 2005, while the average weekly wage in the other services sector dropped 4.6 percent.
Such changes in the composition of employment – and the changes they have likely wrought on wages – are of particular concern, since employment in areas like manufacturing has traditionally permitted relatively less-educated workers to earn wages sufficient to achieve a middle-class standard of living, opportunities that are not widely available in many service-oriented sectors. Given national trends and international dynamics, state policies alone are unlikely to be able to reverse the decline in manufacturing employment in Massachusetts. The challenge before researchers and policymakers therefore is to craft strategies to create new high-wage jobs in other sectors and to raise wages for those in existing low-wage jobs. By investing in primary and secondary education, higher education, and workforce training, Massachusetts can attract employers who seek well-educated workers for jobs that pay good wages. Additional strategies, including an adequate minimum wage, will also be necessary so that workers in the lowest-paying service sector jobs can earn enough to support themselves and their families.

Despite its economic struggles since 2001, Massachusetts remains, in the aggregate, one of the most well-off states in the nation. This, too, is likely due in part to differences in the composition of employment among the fifty states. As Figure 9 shows, on average, jobs in the information, financial activities, and professional and business services sectors are among the most well compensated in Massachusetts, each paying more than $1,250 per week. As noted above, the concentration of employment in each of these sectors in Massachusetts is the ninth highest in the country, which may, in turn, help to push up wages overall here at home.

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10 For the construction, natural resources, and mining sector, Figure 9 shows the average weekly wage for construction only – $1,017 per week in 2005. The average weekly wage for the remainder of the sector – natural resources and mining – was $871 per week that year.
Finally, Massachusetts may be better positioned for future economic growth than other states, if the sectors in which it enjoys a comparative advantage are poised to expand over the next few years. Research from the U.S. Department of Labor (DOL) suggests that this may be the case.\textsuperscript{11} DOL projects that, between 2004 and 2014, employment in the professional and business services and the education and health services sectors will grow substantially more than other sectors; employment in each of these two sectors is expected to climb by more than 25 percent by 2014. Of course, simply because Massachusetts exhibits some strength in these industries today does not guarantee that future growth will be focused here, but Massachusetts’ comparative advantage should be helpful in attracting new or expanding businesses within these sectors.

**LABOR FORCE**

*Composition of the Massachusetts Labor Force*

Just as the composition of employment in Massachusetts differs in significant ways from the rest of the country, so too does the composition of its labor force. In general, as Figure 10 illustrates, the Massachusetts labor force is more balanced between men and women and is better educated than the overall US labor force, but is less ethnically and racially diverse and is somewhat older. In 2005, women made up 48.0 percent of the Massachusetts labor force, compared to 46.4 percent for the United States as a whole; no other state in the nation had a larger share of its labor force consist of women that year.\textsuperscript{12} Similarly, the share of the Massachusetts labor force holding at least an undergraduate degree was the largest in the country in 2005. With more than 40 percent of its labor force having earned a bachelor’s degree or higher, the Commonwealth surpassed New Jersey, Maryland, and Connecticut, each of which had labor forces in which over 35 percent of workers held at least an undergraduate degree.\textsuperscript{13} This distinction, or more importantly, what this distinction represents – namely, the presence of a highly skilled workforce – should bode well for future economic growth in the Bay State.

Potentially less propitious for the Commonwealth’s economic future is the fact that 17.1 percent of its labor force is age 55 or older, as opposed to 16.2 percent for the rest of the nation. Further, only 13.8 percent of the Massachusetts labor force is between the ages of 16 to 24, compared to 14.9 percent for the entire United States. This may simply be an indication that younger people in Massachusetts are not part of the labor force because they are attending college, but it could also be a sign that the Massachusetts economy is due to suffer some aging-induced strains in the years ahead.

\textsuperscript{11} BLS Releases 2004-14 Employment Projections, United States Department of Labor, December 7, 2005; available at [http://www.bls.gov/news.release/ecopro.nr0.htm](http://www.bls.gov/news.release/ecopro.nr0.htm)

\textsuperscript{12} Other states appear to have larger shares of their workforces comprised of women – Louisiana’s, for example, was 49 percent female in 2005 – but the differences between those states and Massachusetts are not statistically significant.

\textsuperscript{13} In 2005, nearly 55 percent of the District of Columbia labor force had completed at least a bachelor’s degree program.
The differences in the makeup of the Massachusetts’ and United States’ labor forces reflect, in part, changes that have occurred here in the Commonwealth over the last fifteen years. In particular, as Figure 11 suggests, since 1991, the Massachusetts labor force has become better educated, but has grown older as well. In 1991, less than a third of the workforce held at least an undergraduate degree; by 2005, more than two out of every five workers had earned at least a bachelor’s degree. In 1991, only about 12 percent of the workforce was over the age of 55; by 2005, just above 17 percent was part of that age group. Conversely, the share of the workforce between the ages of 16 and 24 dropped from 16.9 percent in 1991 to 13.8 percent in 2005 (though all of that change appears to have occurred prior to 2001). Finally, between 1991 and 2005, the share of the Massachusetts labor force consisting of whites dropped significantly, while the shares of the labor force for which African-Americans, Hispanics, and Asians/Pacific Islanders account have all grown. (However, since 2001, African-Americans’ share of the Massachusetts workforce has actually declined – from 6.3 percent to its present level of 5.1 percent.)
Impact of Economic Trends on the Massachusetts Labor Force

An understanding of the demographic composition of the Massachusetts labor force can be essential, since some groups tend to fare worse – or better – than the labor force as a whole, as Figure 12 indicates. In 2005, women enjoyed a lower unemployment rate than the labor force overall – 4.2 percent versus 4.9 percent – but exhibited lower labor force participation rates and employment to population ratios than their male counterparts. In other words, while fewer women than men, relative to their respective labor forces, were officially out of work and actively looking for employment, it is also the case that fewer women held jobs – or were looking for them – relative to their population as a whole. Consequently, the depth of unemployment among women may be greater than the official unemployment rate suggests. In addition, the proportion of women who worked part-time was far higher than the proportion of men who did so in 2005, though women were less likely to work part-time for what the Bureau of Labor Statistics defines as “economic reasons.” The definition of this term includes an inability to find full-time employment due to unfavorable business conditions or seasonal declines in demand, but does not appear to cover situations in which, for instance, affordable full-time child care is not available.
Labor Force Statistics – A Brief Glossary

The statistics presented in Figure 12 – and discussed throughout this section of the paper – are terms that originate with the U.S. Bureau of Labor Statistics (BLS) and can be defined as follows:

- **Labor force participation rate** – The labor force participation rate is the number of people aged 16 or older who are either employed or considered to be unemployed divided by the entire population aged 16 or older. Individuals in institutions (for instance, prisoners or nursing home residents) are excluded from this calculation, as are members of the military. Thus, a labor force participation rate of 74.8 percent for men means that approximately 75 out of every 100 men aged 16 or older either have a job or are looking for one, while 25 out of every 100 men are not in the labor force – that is, they are not actively seeking employment, either because they do not believe jobs are available or for any other reason.

- **Employment to population ratio** – The employment to population ratio is the number of employed people aged 16 or older divided by the entire population aged 16 or older. (Again, institutionalized individuals and members of the military are not counted in this measure.) It is similar to the labor force participation rate, except that it excludes unemployed workers from its numerator.

- **Unemployment rate** – The unemployment rate is found by dividing the number of unemployed people (aged 16 or older) by the entire labor force (aged 16 or older). It does not include individuals who may be out of work but who have become discouraged and stopped looking for a job. (To be considered “unemployed” by the BLS, an individual must have made specific efforts to secure employment within the past four weeks; otherwise, he or she is deemed to be out of the labor force.) Consequently, the unemployment rate tends to understate the true depth of unemployment.

- **Long-term unemployment share** – The long-term unemployment share is the percentage of people who are considered unemployed who have been out of work for more than 26 weeks.

- **Underemployment rate** – A more comprehensive measure than the basic unemployment rate, the underemployment rate takes into account individuals who are out of work but who have not looked for a job in the past four weeks (and who, therefore are not regarded as “unemployed” by the BLS) as well as individuals who work part-time but who are seeking full-time employment.

- **Part-time workers share** – The part-time workers share is the percentage of all employed persons who work fewer than 35 hours per week.

- **Part-time for economic reasons share** – This is the percentage of all part-time workers who want to work full-time (and are available to do so) but who are unable to do so, either because they can not find full-time employment or because such employment is simply unavailable (for instance, due to unfavorable business conditions).
While male workers appear to fare better under some of the measures presented in Figure 12, between 2001 and 2005, they did experience significant declines in their labor force participation rate (which dropped from 74.9 percent to 72.7 percent) and in their employment to population ratio (which sank from 71.8 percent to 68.6 percent). At the same time, their unemployment rate rose (from 4.2 percent to 5.6 percent) as did their underemployment rate (from 15.5 percent to 18.8 percent). Likewise, the proportion of men suffering long-term spells of unemployment climbed from 16.5 percent to 22.8 percent between 2001 and 2005.

Not surprisingly, the differences among demographic groups are even greater when educational attainment is considered. Workers with a high school education or less struggled greatly by the measures found in Figure 12 in 2005. For example, workers without a high school education were more than twice as likely as the labor force as a whole to be unemployed or to be underemployed. Workers who had completed high school still had lower labor force participation rates and employment to population ratios than their better educated counterparts, but were somewhat less likely to work part-time than the overall labor force. In contrast, workers with a bachelor’s degree or higher in 2005 had a much higher labor force participation rate and employment to population ratio than the overall Massachusetts labor force. They also witnessed much lower unemployment and underemployment rates than other workers. What’s more, they were significantly less likely to work part-time and, when they did, a much smaller share did so for economic reasons. Nevertheless, a college degree has not been enough to ward off completely the ill affects of the 2001 recession, as the labor force participation rate and the employment to population ratio for the college-educated dropped between 2001 and 2005; these two measures were also lower for college-educated workers in 2005 – four years after the end of the 2001 recession – than they were in 1995 – four years after the conclusion of the preceding recession.
Finally, as Figure 12 demonstrates, African-Americans and Hispanics faced higher unemployment and underemployment rates than the labor force as a whole in 2005, but participated in the labor force at statistically the same rate as all workers that year. Hispanics, however, did have a lower employment to population ratio and were much more likely to work part-time for economic reasons. In statistical terms, the labor force participation rate and employment to population ratio for African-Americans, as well as their unemployment and underemployment rates have all held steady since 2001, but the picture worsened significantly for Hispanics by those four measures between 2001 and 2005. Still, Hispanics, as a group, have a higher labor force participation rate and a higher employment to population ratio at this point in the Commonwealth’s economic recovery than they did at this point in the 1990s economic cycle. In 1995, the labor force participation rate for Hispanics was 56.4 percent and the employment to population ratio was 49.8 percent; in 2005, these figures were 65.1 percent and 58.9 percent respectively.

**WAGES, INCOMES, AND POVERTY**

An examination of economic conditions in Massachusetts would not be complete without considering what workers earn in exchange for their labor and whether those earnings are sufficient to secure life’s most basic necessities. In comparison to the country as whole, Massachusetts remains relatively affluent, with wages and incomes considerably above, and poverty rates substantially below, those at the national level. Yet, such comparative prosperity may be of little consolation to working people in the Commonwealth, since, in recent years, wages have declined in Massachusetts after adjusting for inflation. In particular, between 2003 and 2005, the median hourly wage fell more sharply here than in any other state and more sharply than in any two-year period since at least 1981. In addition, both the median household income and the poverty rate in Massachusetts have failed to improve since the national recession ended in 2001. Inequality too – as reflected in differences both in wages and in incomes – is also worse now in Massachusetts than at any point in the last twenty to twenty-five years and is noticeably higher than in most other states.

**Wages: Declines and Disparities**

Figure 13 shows how, after adjusting for inflation, hourly wages in Massachusetts have changed over time for low-wage workers (i.e. those earning an hourly wage that would place them at the 20th percentile in the wage distribution), for the typical worker (i.e. someone earning the median or 50th percentile wage), and for high-wage workers (those at the 80th percentile of the wage distribution). Two features of the figure are readily discernible.

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14 The earliest two-year period for which state by state hourly wage data may be reliably generated from the Current Population Survey is 1979-1981.
15 Unless otherwise noted, all wages in this section are expressed in constant 2005 dollars.
Figure 13.

Trends in Wages in Massachusetts, 1979 - 2005

Figure 14.

Changes in Massachusetts' Real Median Hourly Wage, 1979 - 2005
First, one can see from Figure 13 that the real hourly wage has dropped for low-, middle- and high-wage workers since 2003. The 20th percentile wage fell 3.8 percent between 2003 and 2005, shrinking from $10.49 per hour to $10.09 per hour. The median wage declined from $17.19 per hour to $16.35 per hour over this period, a drop of 4.9 percent. The 80th percentile wage moved from $29.72 per hour to $28.83 per hour, a loss of about 3.0 percent. While the median wage was still higher in 2005 than it was in 2001, its decline since 2003 is worthy of attention, as it represents the largest two year drop in the median wage in Massachusetts since at least 1981, as Figure 14 emphasizes.

Moreover, although hourly wages in Massachusetts remain substantially higher than for the United States as a whole, the declines shown in Figure 13 were among the worst in the country, with the drop in the median wage in Massachusetts the most sizable out of the fifty states over the 2003-2005 period. As Figure 15 demonstrates, in 2005, hourly wages at the 20th, 50th, and 80th percentiles in Massachusetts were 14 to 18 percent higher than the comparable points in the national wage distribution. Yet, as Figure 16 shows, the drops in real wages that low-, middle-, and high-wage workers in Massachusetts suffered between 2003 and 2005 were much sharper than those witnessed at the national level. From 2003 to 2005, the 20th percentile wage in Massachusetts fell 3.8 percent in the aggregate, more than twice as far as the 20th percentile wage nationally did. Only 10 other states between 2003 and 2005 experienced a larger fall in their 20th percentile wages. Worse still, the median wage in Massachusetts dropped by a total of 4.9 percent over this span, a drop that was four times larger than the comparable national change. In fact, the median wage in Massachusetts dropped more over this period than in any other state in the nation. Much the same could be said of wages at the 80th percentile: Massachusetts’ decline of 3.0 percent was four times as great as the national change of minus 0.7 percent and was the ninth worst change in the country between 2003 and 2005.

**Figure 15.**

![Comparison of Hourly Wages, Massachusetts and the US, 2005](image)
These findings generally continue to hold when data for 2006 are used. Though hourly wage data for the 2006 calendar year, on a state by state basis, will not be available for some time, quarterly data are available through the second quarter of 2006; those data in turn can be used to construct hourly wage data on a fiscal year (i.e. July through June) basis. These data, like the calendar year data detailed above, indicate that wages have fallen noticeably in Massachusetts over the last few years.

In particular, the decline in hourly wages that, on a calendar year basis, largely began in 2003 appears to have continued into the first part of 2006. Between FY 2005 and FY 2006, the 20th percentile wage dropped 2.6 percent, from $10.33 to $10.06 per hour. The median wage went from $17.26 to $16.42 per hour, a decline of 4.9 percent, while the 80th percentile wage deteriorated from $29.85 to $29.13 per hour, a difference of 2.4 percent.

Overall, on a fiscal year basis, the drops in the hourly wages for workers earning the 20th percentile wage in Massachusetts – as well as for those earning the median wage – were nearly the largest in the nation between 2003 and 2006. Between FY03 and FY06, the 20th percentile wage in Massachusetts declined 6.5 percent; this change was four times as great as the national decline of 1.6 percent and was exceeded only by the 6.6 percent drop in Connecticut. Similarly, over the FY03 to FY06 period, the median hourly wage in Massachusetts fell 5.3 percent. This drop, too, was surpassed only in Connecticut, where the median wage fell 5.7 percent over the same period. The drop in the Massachusetts median wage was also ten times as great as the 0.5 percent drop in the median wage nationally between FY03 and FY06.

16 The dollar figures presented in this discussion of “fiscal year” hourly wages are expressed in constant FY 2006 dollars.
The second noticeable feature of Figure 13 is how unequal wage growth has been in Massachusetts over the last twenty-five years or so. Wages for workers at the 80th percentile grew from $19.98 per hour in 1979 to $28.83 in 2005, an increase of 44.3 percent. Over the same period, the median wage rose 27.1 percent, from $12.86 per hour in 1979 to $16.35 in 2005. The improvement in wages for workers near the bottom of the distribution was smaller still, as the 20th percentile wage climbed 16.8 percent between 1979 and 2005, going from $8.64 per hour to $10.09 per hour. Thus, during the last two and half decades, wages for those near the bottom of the wage distribution improved by less than one dollar and fifty cents per hour, while wages for those near the top jumped by nearly nine dollars. (Figure 17 demonstrates even more starkly how much better high-wage workers have fared since the end of the 1970s, as it reveals that the 90th percentile wage grew 54.6 percent between 1979 and 2005. The 10th percentile wage was nearly stagnant over the same stretch, rising just 8.3 percent.)

As a result of these long-term trends, the gap between low- and high-wage workers in Massachusetts is now among the widest in the country. As of 2005, the ratio of the 80th percentile wage to the 20th percentile wage in Massachusetts was 2.9:1, meaning that it would take nearly three low-wage workers to earn in one hour what a single high-wage worker did. This disparity appears to be among the ten largest in the nation in 2005 and to be slightly above the overall US mark of 2.8:1.

**Figure 17.**

**Hourly Wage Growth in Massachusetts, 1979 to 2005**

![Hourly Wage Growth Chart](image)
Incomes: Affluence and Inequality

Since wages typically constitute the large majority of a person’s – or a household’s or a family’s – income, it is not surprising that two of the most salient attributes of wages in Massachusetts – namely, their size relative to most of the country and their extremely uneven distribution – can be ascribed to incomes as well. That is, on the basis of incomes, Massachusetts is simultaneously one of the most affluent states in the nation and one of the most unequal.

Figure 18 displays data from the U.S. Census Bureau’s Current Population Survey on average median household incomes for each of the fifty states and for the country as a whole for the 2003-2005 period.17 (These incomes are expressed in constant 2005 dollars.) It shows that the typical household in Massachusetts had a markedly higher income in recent years than the typical household nationally. For the 2003-2005 period, the average median household income in Massachusetts was $54,617 or roughly 19 percent higher than the national average median household income of $46,038. Moreover, only five other states – New Jersey, Maryland, New Hampshire, Hawaii, and Connecticut – had average median household incomes above Massachusetts over this time frame. Forty states had lower average median household incomes than Massachusetts and four had average median household incomes that were statistically indistinguishable from Massachusetts.

Nevertheless, since the end of the national recession, the median household income in Massachusetts has failed to register any real gains. For the 2000-2001 period, the median household income in Massachusetts was $55,311 (again, in constant 2005 dollars). By the 2004-2005 period, it stood at $54,888, a change that is not statistically significant. In other words, four years into the economic recovery, the typical Massachusetts household was no better off than at its start.

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17 The U.S. Census Bureau produces data on incomes and poverty in the United States from two sources: the Current Population Survey (CPS) and the American Community Survey (ACS). The CPS is the older of the two surveys and is a more reliable source for making comparisons over time (though, due to sample size constraints, data must be pooled over two or three years to do so). The ACS is based on a larger sample and is thus able to provide information on a sub-state basis (e.g. at the county, city, or Congressional district level). However, as the ACS sample was dramatically expanded in 2005, Census staff currently consider it preferable, when possible, to use the CPS for tracking statewide income and poverty statistics over time. Consequently, Figures 18 and 21, which examine median household incomes and poverty rates in Massachusetts over time, rely on data from the CPS and pool data from that source over multiple years to permit analysis. Figure 22, which simply makes comparisons among states in 2005, employs data from the ACS.
Figure 18.

Median Household Incomes in the United States, 2003-2005

Median household income (three-year average, constant 2005 dollars)
Summary measures – such as median household incomes – have only limited utility, however. While they offer some insight into how the typical individual, household, or family may be faring, they reveal little about the difficulties that individuals, households, or families who have enjoyed less economic success may be facing or about the advantages that those who have realized the benefits of economic growth may enjoy. To illustrate these differences, Figure 19 presents data on the distribution of family incomes in Massachusetts and the United States for the 2001-2003 period.\(^\text{18}\) (These incomes are expressed in constant 2002 dollars.)

Figure 19.

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These data are taken from the January 2006 MBPC publication, *The Growing Gap: Income Inequality in Massachusetts*. *The Growing Gap*, in turn, is based on data from the U.S. Census Bureau’s Current Population Survey compiled and analyzed by two independent, non-partisan research organizations based in Washington, DC – the Center on Budget and Policy Priorities (CBPP) and the Economic Policy Institute (EPI). To permit comparisons over time, these data have been pooled for each state and for the nation as a whole for three separate periods: 1980 through 1982, 1990 through 1992, and 2001 through 2003. Each of these periods represents a similar point in the economic cycle. In addition, these data are for families (that is, two or more related individuals living together) and are on a “post-tax” basis – that is, they include earned income (such as wages and salaries), income from capital gains, direct cash transfers from public programs like Temporary Assistance for Families with Dependent Children (TAFDC), the cash value of food stamps, subsidized school lunches, and housing subsidies and account as well for the effect of federal tax policies.
Figure 20.

Change in Income Inequality Among the Fifty States, 1980-82 to 2001-03
Increase in Ratio of Average Family Incomes, Top 20% to Bottom 20%

MA: Change in ratio, 1980-82 to 2001-03: 2.5 3rd

Income Inequality Among the Fifty States, 2001-03
Ratio of Average Family Incomes, Top 20% to Bottom 20%

MA: 2001-03 ratio: 7.3:1 11th
Figure 19 shows that, while families in Massachusetts may have higher average incomes than their counterparts across the United States, the overall distribution of income within the Commonwealth is heavily skewed towards the top. For example, in 2001-2003, the average income for the wealthiest fifth of all families in Massachusetts was $144,412. This amount was two and a half times the average income for families in the middle of the distribution: $58,383 in 2001-2003. What’s more, the average income for poorest fifth of families in Massachusetts in 2001-2003 was just $19,690. Thus, a single family in the top twenty percent of the income distribution in Massachusetts had more than seven times the income of a single family in the bottom twenty percent.

As Figure 20 shows, the gap between low- and high-income families in Massachusetts was larger than in nearly four out of every five states in 2001-2003. Again, the ratio of the average income for families in the wealthiest fifth of the income distribution to the average income for families in the poorest fifth in Massachusetts was 7.3:1 for the 2001-03 period. This degree of inequality was the 11th highest in the United States; states such as New York, Florida, North Carolina, and California had greater degrees of inequality over this period. Figure 20 demonstrates as well that the gap between low- and high-income families in Massachusetts has grown considerably wider over time, as the change in the ratio of the average incomes for the wealthiest and poorest fifth of families in Massachusetts was the third highest in the nation from the start of the 1980s to the beginning of this decade. Only in New York and Arizona did the gap in incomes grow more than in Massachusetts. Moreover, it is quite likely that these developments will get worse before they get better, given the trends in wage growth discussed earlier. The data on which this examination of income inequality is based are for the years from 2001 through 2003; yet, since 2003, while wages have dropped across the board in Massachusetts, they appear to have fallen more sharply for workers at the bottom of the distribution than at the top.

**Poverty: Failure to Progress**

Given that incomes in Massachusetts have been stagnant since the start of the decade, the Commonwealth’s lack of progress in reducing the extent of poverty should come as little surprise. As Figure 21 suggests, the poverty rate in Massachusetts held steady in statistical terms between 2000-2001, the period during which the national economic recovery began, and 2004-2005, the most recent period for which data are available through the Census Bureau’s Current Population Survey (CPS). In 2000-2001, the poverty rate in Massachusetts was 9.4 percent; for 2004-2005, it was 9.7 percent. This apparent increase is not statistically significant, meaning that, based on the sample utilized in the CPS, there is no measurable change between the two points in time. The poverty rate in Massachusetts has failed to improve over a shorter period as well. According to the CPS, the poverty rate in Massachusetts was 9.8 percent for the 2003-2004 period; the difference between that figure and the 9.7 percent figure for 2004-2005 period is likewise not statistically meaningful.
A different source of data from the Census Bureau – the American Community Survey (ACS) – now permits single year comparisons among states. Figure 22 presents poverty rates – for both the population as a whole and for children under the age of eighteen – for each of the fifty states and the United States in its entirety for 2005. It shows that poverty was more prevalent among children in 2005 than it was for the general population. In Massachusetts, for example, the poverty rate among children under the age of eighteen was 13.6 percent, while, for the population at large, it was 10.3 percent. Of note, despite the fact that the poverty rate has failed to improve in Massachusetts over the course of the economic recovery, it remains lower in Commonwealth than in most states. In 2005, only ten states had a lower overall poverty rate than Massachusetts; New Hampshire had the lowest overall rate at 7.5 percent. Similarly, just ten states had a lower child poverty rate than Massachusetts in 2005. New Hampshire had the lowest rate in this category as well: 9.4 percent.

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19 The poverty rate for Massachusetts found in Figure 23 differs from that found in Figure 22 since the former is based on data from the Current Population Survey and is the average of two year’s worth of data, while the latter is derived from the American Community Survey and is for a single year.
Figure 22.

Total and Child Poverty Rates by State, 2005

United States
Child: 18.5%
Total: 13.3%

Massachusetts
Child: 13.6%
Total: 10.3%
CONCLUSION

Though it is now nearly five years since the end of the 2001 recession, Massachusetts continues to struggle economically. Despite gains since the end of 2003, employment in Massachusetts is still lower today than at either the beginning or the end of that recession; indeed, the Commonwealth is one of only six states for which this is the case. Perhaps even worse, wages in Massachusetts, after adjusting for inflation, have dropped across the labor force over the last few years. In particular, the median hourly wage – that is, the wage earned by the typical Massachusetts worker – fell close to 5 percent between 2003 and 2005, the largest decline in the country during that period and the largest two-year decline in Massachusetts in at least twenty-five years.

In responding to trends such as these, the challenge before researchers and policymakers is to craft strategies to create new high-wage jobs across all economic sectors in Massachusetts and to raise wages for those in existing low-wage jobs. By investing in primary and secondary education, higher education, and workforce training, Massachusetts can attract employers who seek well-educated workers for jobs that pay good wages. Additional strategies, including an adequate minimum wage, will also be necessary so that workers in the lowest-paying service sector jobs can earn enough to support themselves and their families.

Over the course of the past several months, some progress has been made in crafting such strategies. On July 31, the Massachusetts Legislature overwhelmingly overrode a gubernatorial veto and enacted an increase in the Commonwealth’s minimum wage. As a result, the Massachusetts minimum wage will climb to $8.00 per hour in 2008. Approximately 315,000 workers – the vast majority of whom are adults and nearly half of whom work full-time – will see their wages rise due to this change; in fact, in the aggregate, their wages will grow by $140.7 million in 2008. In addition, the fiscal year 2007 budget, adopted on June 30, further restores funding in an area central to the long-term economic security of Massachusetts’ working families: public higher education. Support for public higher education rose 5.3 percent in the FY07 budget, climbing from $976.3 million in FY 2006 (excluding one-time spending that year) to $1.028 billion in the current fiscal year. What’s more, the recently-passed economic stimulus initiative increased appropriations for workforce development by $24.5 million.

Still, substantial work remains to be done, even in these areas. Though the minimum wage was increased, it was not indexed to inflation. Consequently, in the absence of further action, workers who earn the minimum wage will lose real purchasing power year after year. Similarly, though funding for higher education has improved, it has yet to return to its 2001 level; in fact, after adjusting for inflation, the FY07 budget leaves higher education appropriations 19 percent below what they were six years ago. These and other policy challenges – including the effective implementation of the Commonwealth’s landmark health care access reforms – will have to be met to achieve a truly strong state for working individuals and families in Massachusetts.