THE STATE OF WORKING MASSACHUSETTS 2008

Entering a Recession After a Recovery that Missed Many

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The Massachusetts Budget and Policy Center provides independent research and analysis of state budget and tax policies, as well as economic issues, that affect low- and moderate-income people in Massachusetts. Work on this project was supported by grants from the Ford Foundation, the Herman and Frieda L. Miller Foundation, the Charles Stewart Mott Foundation, the New Directions Foundation, and the Schott Foundation for Public Education, as well as other institutional and individual donors.

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Executive Summary

Over the past year, the nation has plunged into recession. Unemployment has jumped to 6.7 percent, and seems to be steadily increasing. The Dow Jones Industrial Average has declined by over 5,500 points since October 2007, and continues to struggle. Across the economy, wealth has vanished, jobs have been lost, incomes have declined, and savings have evaporated. This downturn is now widely expected to be the most severe recession since the Great Depression of the 1930s. In 2006, the 1 percent of all households in the United States with the highest incomes received 23 percent of all the income. This is the highest level of income inequality since 1928. Once again, after years of growing inequality, the nation's economy is starting to crash.

This edition of the *State of Working Massachusetts* examines conditions in Massachusetts during the business cycle that led up to this collapse: what happened to employment and wages overall; which sectors grew and which got smaller; who gained and who lost; how our workforce has changed in terms of age, educational attainment, and diversity; how the lowest-income people have fared; and how these changes in Massachusetts compared to those in the nation overall.

The economic trends in Massachusetts followed trends nationwide: there was growing inequality as real wages declined at the bottom and incomes grew rapidly at the top; there was a hollowing out in the middle as manufacturing declined and lower wage sectors grew; there was weak employment growth as the state ended a period of recovery with 89,000 fewer jobs than at the previous high point. Although some people amassed great wealth over the past seven years, it was not a period of strong economic growth for many Massachusetts families.

While Massachusetts suffered many of the same ills as the nation, there were some bright signs. Among them, the state continued a trend of becoming increasingly well-educated. The share of the labor force with a bachelor's degree increased to 43.7 percent – up from 32.2 percent in 1990. This rate is more than 35 percent above the national rate of 30.3 percent. As jobs that pay higher wages have increasingly required higher levels of education, Massachusetts' well-earned reputation for having an educated workforce should continue to give the Commonwealth a long-term advantage over other states.

INTRODUCTION

The *State of Working Massachusetts*, reported annually by the Massachusetts Budget and Policy Center, examines trends in employment, wages and labor force demographics.

State of Working Massachusetts 2008, like prior editions, is based on U.S. Census Bureau and other data compiled by the Economic Policy Institute a non-partisan research organization based in Washington, DC, in connection with its *State of Working America* report. The report also examines data collected by the Massachusetts Department of Workforce Training on employment levels and wages in various subsectors of the state's economy.

In looking at wage and employment trends in Massachusetts, this report focuses on the recent business cycle which, peak to peak, lasted from the spring of 2001 to the end of 2007^1 , while using more recent data when available. Looking from one peak to the next enables relevant comparisons over the course of a complete business cycle.²

Business Cycles

The Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) determines business cycle reference dates, namely their peaks and troughs. The Committee bases its decisions on a range of economic indicators. However, the Committee counts employment and domestic production as the two "primary" indicators of "economic activity." A complete list of the indicators used to determine the beginning and ending dates of business cycles is available at: <u>http://www.nber.org/cycles/dec2008.html</u> (see appendix).

A business cycle peak occurs at the point when the economy stops expanding and starts contracting. A businesscycle trough occurs at the point when the economy stops contracting and starts expanding. The period from a peak to a trough is referred to as a recession. A full business cycle is measured from one peak to the previous peak or from one trough to the previous trough. A list of all business cycle peaks and troughs over time in the U.S. is available at: <u>http://www.nber.org/cycles.html</u>.

The full business cycle of the 1990s is marked by the following dates: a peak in July 1990, a recession from July 1990 through March 1991 and an expansion from March 1991 through March 2001.

The full business cycle of the 2000s is marked by the following dates: a peak in March 2001, a recession from March 2001 through November 2001 and an expansion from November 2001 through December 2007. In Massachusetts, employment continued to rise modestly after December 2007, reaching a high point in June 2008, dipping in July and showing a small increase in August before beginning to decline steadily throughout the fall.

¹ Economic Policy Institute, Economic Snapshot, Aug. 6, 2008, is available at:

http://www.epi.org/content.cfm/webfeatures_snapshots_20080806.

² Business cycles' peaks and troughs are marked by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER). The business cycle of the 1990s lasted from the peak of July 1990 to the peak of March 2001. The business cycle of the 2000s lasted from the peak of March 2001 to the peak of December 2007. More information about business cycles is available in the gray box on this page.

EMPLOYMENT

The most recent business cycle lasted from the spring of 2001 to the end of 2007.³ In that time, Massachusetts suffered steeper job losses and experienced a weaker recovery than the nation as a whole. By the peak of the most recent business cycle, in December 2007, the United States replaced the jobs it had lost during the 2001 recession. Massachusetts, on the other hand, recouped a little more than half of the jobs it lost during the same period.

During Massachusetts' most recent business cycle two major industry supersectors,⁴ health and education services and leisure and hospitality steadily created jobs. Other supersectors, however, did not fare well. The manufacturing sector continued a long trend of declining employment. There were also net job losses during this business cycle in the Information and the Trade, Transportation and Utilities supersectors.

There were bright spots to Massachusetts' employment story. There has been significant job growth in the health and education services supersector.⁵ While the average weekly wage in this supersector is slightly lower than the state average overall, there are many types of jobs within this supersector that do pay decent wages. For example jobs at hospitals, doctors' offices, and higher education institutions paid higher wages than the state average. In this section we examine where the jobs were created in this supersector and examine the average wages that these jobs paid.

The loss of manufacturing employment continues to be cause for concern. Manufacturing jobs, which historically were available to workers with low levels of education, provide average weekly wages that are higher than the state average. As manufacturing jobs continued to decline, the leisure and hospitality supersector remained one of the few sources of employment for workers with low educational attainment. However, leisure and hospitality employment pays wages that are significantly lower than wages in the manufacturing supersector.

³ The Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) announced in early December 2008 that the U.S. had been in a recession since December 2007. More information about the factors considered to make this determination is available at: http://www.nber.org/cycles/dec2008.html).

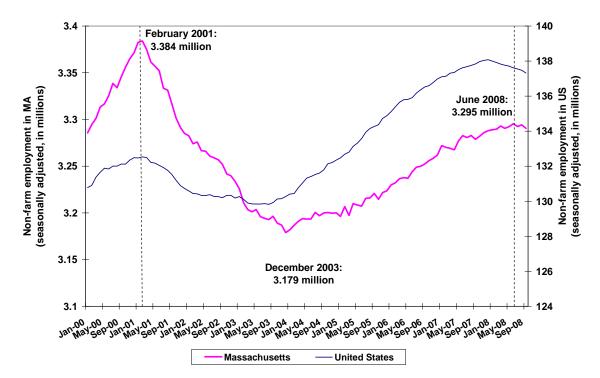
⁴ This report breaks industries down into the same supersectors, sectors and subsectors that are used by the Census Bureau's North American Industry Classification System (NAICS). For instance, higher education is a subsector within the Educational Services, Health Services and Social Assistance supersector. Available at: http://www.census.gov/eos/www/naics/

⁵ The health care and education services sector includes social service jobs and excludes teachers in public elementary and high schools and employees at public hospitals. Those teachers are included in the government sector.

Aggregate Employment Trends

Massachusetts' recovery after the recession of 2001 was fairly weak. Unlike the nation at large, Massachusetts never fully regained the jobs it held at the previous employment peak in February of 2001. Massachusetts lost over 200,000 jobs or 2.5 percent of total employment. When its employment peaked in June of 2008, Massachusetts had regained employment but still fell 89,000 jobs short of the employment peak of almost 3.4 million jobs in 2001.

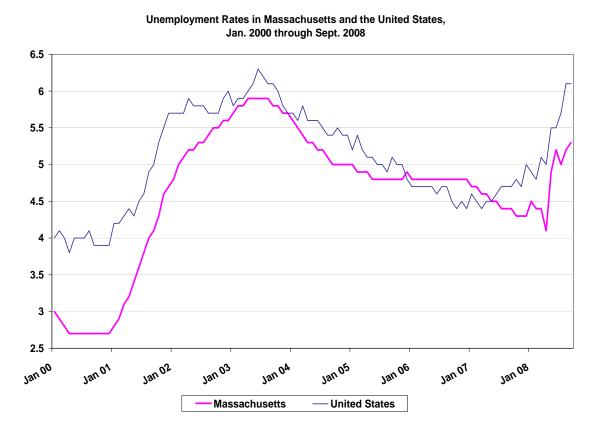
Figure 1.



Employment in MA and the US, Jan. 00 - Sept. 08

By the peak of the business cycle at the end of 2007, Massachusetts' unemployment rate remained lower than the national average. As Figure 2 indicates, despite the fact that Massachusetts only restored slightly more that half of the jobs it lost during the 2001 recession, the state's unemployment rate still remained below the national average.





Composition of Employment in Massachusetts

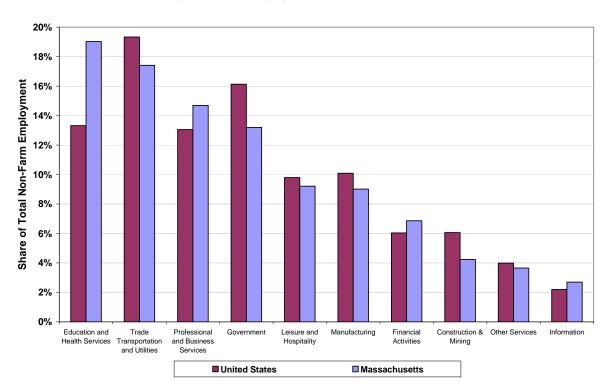
The health and educational services supersector⁶ is the largest employer in Massachusetts. In 2007, this supersector employed over 623,000 people, or 19 percent of total employment in the state.

The trade, transportation and utilities supersector was Massachusetts' second-largest employer in 2007, providing 570,000 or 17 percent of all jobs in the state. This supersector, comprised largely of retail and wholesale jobs, is the largest employer in the nation, accounting for almost 20 percent of all jobs in the United States.

Compared with the composition of jobs nationally, Massachusetts employed more workers in the education and health services, professional and business services, the financial activities and the information supersectors. Manufacturing, leisure and hospitality, government and construction and mining supersectors held a smaller share of jobs in Massachusetts than they did in the nation as whole.

⁶ For a description of what each supersector contains see information box on page 7





Composition of Employment in the US and MA, 2007

What's in a Name? An Explanation of Economic Supersectors

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: <u>http://www.bls.gov/iag/iaghome.htm</u>.

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.

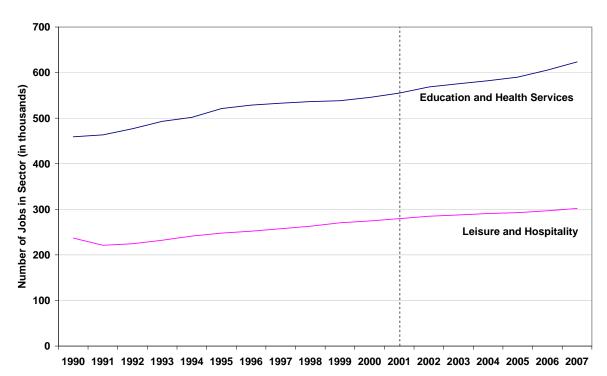
Other Services – This sector is made up of service-sector establishments that are generally not otherwise classifiable and includes, among other enterprises, drycleaners, parking garages, and repair shops.

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.

Where employment grew in Massachusetts

In the most recent business cycle, Massachusetts saw job growth in two supersectors education and health services and leisure and hospitality. These supersectors, as indicated in Figure 3, showed little sensitivity to the business cycle. Even during the recession of 2001, jobs steadily increased in these two supersectors.

Figure 4.



Growing Sectors of the MA Economy, 1990-2007

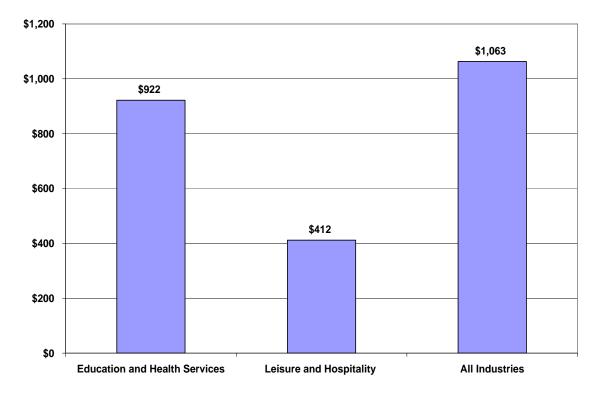
Health Care, Education and Social Services Supersector

The vibrancy of the education and health services supersector, which includes the educational services, health care and social services sectors,⁷ has been crucial to the Massachusetts economy. Not only does this supersector account for the single largest number of jobs in the state, 19 percent of total employment, it also created almost 97,000 jobs between 2001 and 2007. While the average weekly pay in education and health services of \$922 is below the state average for all industries (see Figure 4), further

⁷ The North American Industry Classification System (NAICS) breaks industries into 11 supersectors of which Education and Health Services is one. See: <u>http://www.bls.gov/ces/cessuper.htm</u>. Within each supersector are specific sectors and subsectors. This report uses the NAICS system in identifying employment categories in Massachusetts.

analysis shows that there are jobs within the educational services and health care sectors pay above the state average weekly wage.⁸

Figure 5.



Average Weekly Wage in Growing Sectors of the MA Economy, 2007

To understand where employment and wage growth occur within this sector, this report uses data supplied by the state Department of Workforce Training. The state data, which is gathered from employer surveys, is different from the national-level Current Employment Statistics (CES) data the report uses to look at job growth within each of the major employment sectors.⁹

Health Care Employment

Employment in the health care sector accounted for the largest share of job growth within the health and education services supersector. The health care sector, which grew at an average annual rate of 2.2 percent, created 52,028 jobs between 2001 and 2007 to employ over 421,000 people. The social services sector, which employs the fewest workers

⁸ This report uses CES data where possible to remain consistent with earlier reports and the national State of Working America projects. However, in order to look more closely at wage and employment within industries, this report uses the Quarterly Census of Employment and Wages (CQES). This data source provides wage and employment data over time for employment subsectors. It is important to note that due to differences in collection and employment categorization, CES and CWES data is not directly comparable.

⁹ All wages in this section are inflation adjusted to 2007 numbers.

within this supersector, expanded at an average annual rate of 2.0 percent, adding 7,513 new jobs to a total of 67,594 by 2007. The educational services sector grew the slowest at an average annual rate of 1.2 percent expanding by 29,768 jobs to a total of 315,385 jobs.

Hospitals, which are the largest employers within the health care sector, created the most jobs during this period. In 2007 hospitals employed 186,129 people, an increase of more than 30,000 workers since 2001. General medical and surgical hospitals account for the majority of these jobs. Employment at these hospitals grew by 26,110 jobs from 134,000 in 2001 to more than 160,000 by 2007.

Health Care Wages

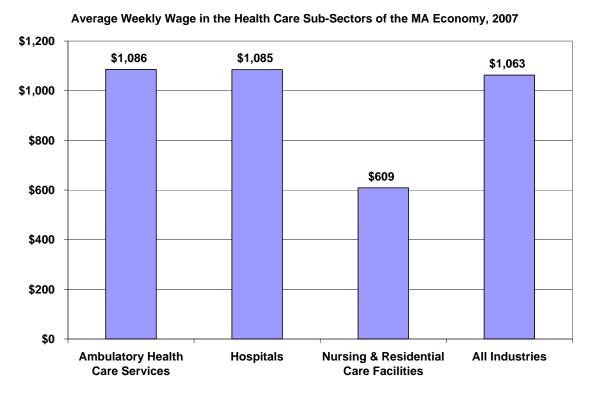
Health care was not only the fastest growing sector in the Massachusetts economy but paid some wages that were higher than the average weekly wage in the state. Hospitals, which provided the greatest job growth in the health care sector, also have average wages just above the state average wage for all industries, as seen in figure 6.¹⁰

Within the hospital sector, general medical and surgical hospitals both created the most jobs and paid the highest wages. Employees at these hospitals earned an average weekly wage of \$1,105 by 2007. Workers at specialty hospitals, including children's hospitals and hospitals for cancer patients, received an average \$1,008 per week. In 2007, workers in psychiatric and substance abuse hospitals were paid the least, receiving an average weekly wage of \$864.

Health care jobs within the ambulatory care subsector also paid well. Workers in this subsector earned on average, \$1,086 per week in 2007. Those who worked at nursing and residential care facilities, including those that house the elderly and disabled, earned a much smaller average weekly wage of \$609.

¹⁰ The state's Department of Labor and Workforce Development provides information on wages in subsectors within the health care sector such as hospitals and ambulatory care. However, the data does not tell us whether the jobs created within these subsectors were all high wage jobs since the information only provides job growth and average weekly wage for the subsector as a whole. It does not provide data on where, within that subsector, the jobs were created and whether those jobs were high wage or low wage jobs.

Figure 6.



Education Employment

The education sector employed over 300,000 workers in Massachusetts in 2007, 4.8 percent of total jobs in the state. This share of the workforce is more than double the national figure of 2.1 percent.

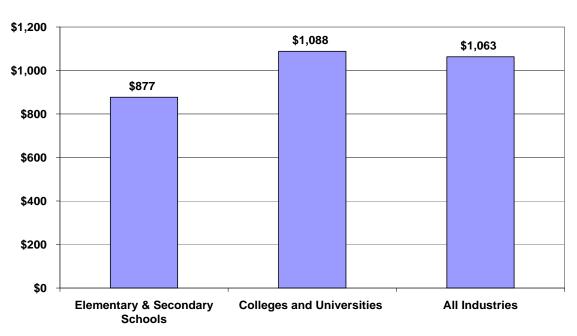
Employment at colleges and universities in Massachusetts grew more than any other field within the education sector. Jobs in higher education grew an average of 0.7 percent between 2001 and 2007, from 93,657 employees to 107,430. Elementary and secondary schools showed a more modest job growth rate of 0.5 percent between 2001 and 2007 from 178,128 to slightly more than 183,000.¹¹

¹¹ The state's office of workforce development, which provides this information, includes public school teachers in within its education sector while the Current Population Survey data used earlier in the report counts public school teacher in the government supersector.

Education Wages

Much like the health care sector, the education subsector with the greatest job growth also provided the highest wages. Colleges and universities in Massachusetts created the most jobs within the education subsector and paid the highest average education wage of \$1,088 per week. Elementary and secondary schools employees were paid \$877 in 2007 which is still well below the state average weekly wage of \$1,063.

Figure 7.



Average Weekly Wage in the Education Sub-Sectors of the MA Economy, 2007

Social Services Employment and Wages

The social services sector, which employed the least number of workers within the health and education services supersector, showed modest job growth. This sector, which employs workers in child care, family services, home-based assistance and vocational rehabilitation, grew at a rate of 2.0 percent between 2001 and 2007, an increase of 7,000 employees.

The average weekly wage for social services was the lowest within the education and health services supersector. The average pay of \$507 per week in 2007 was well below the average weekly pay of \$922 for the health and education supersector and less than half of the average weekly pay for all industries. Workers in the emergency and other relief services earned the highest average wage in this sector of \$583. Child care workers receive the lowest, earning an average weekly wage of \$440 in 2007.

Leisure and Hospitality Employment and Wages

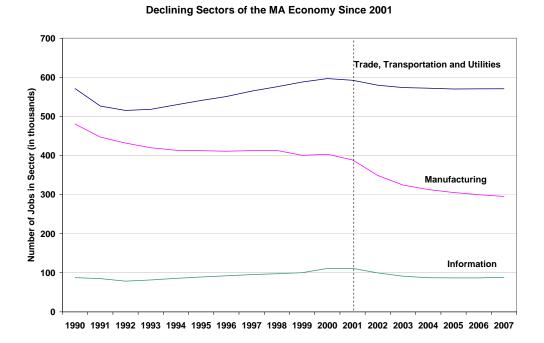
The leisure and hospitality supersector, which includes restaurants, hotels, professional sports facilities and other recreational activities, has seen steady employment growth between 2001 and 2007. Employment in leisure and hospitality increased in 2008 from 278,000 in January to 292,500 by November. This industry increased employment by an average of 1.3 percent per year or 2,300 jobs since 2001. Even with this steady growth, the leisure and hospitality supersector does not represent as large a share of the state's workforce as it does in the nation as a whole.

While the leisure and hospitality supersector has seen steady job growth between 2001 and 2007, the average weekly wage remains significantly below the state average. The average weekly wage for the supersector was \$412 in 2007. Employees in the arts, entertainment and recreation sector were paid the highest average wage of \$648 in 2007. Employees in the accommodations and food services sector were paid the lowest wage of \$363 per week in 2007.

Where employment declined in Massachusetts

Several industries in Massachusetts which contracted during the 2001 economic downturn continued to shed jobs during the recovery and never regained them. These supersectors, including manufacturing, trade, information, and transportation and utilities, lost almost 140,000 jobs between 2001 and 2007.

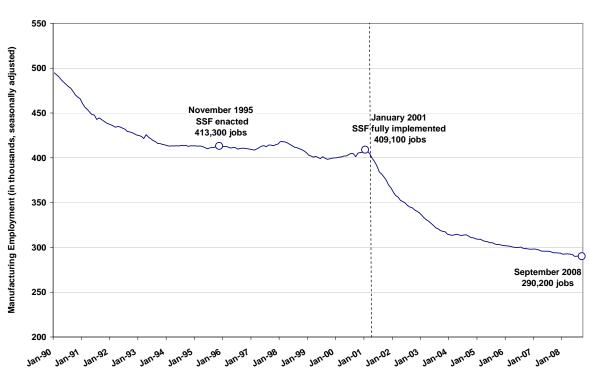
Figure 8.



Manufacturing

Since 2001, the number of manufacturing jobs has declined the most of any supersector in Massachusetts. In the 1990s manufacturing jobs accounted for 16.3 percent of total employment, making it the second largest employer in Massachusetts. Between the 1991 and 2001, Massachusetts lost more than 76,000 of these jobs. After the 2001 recession, manufacturing continued to decline, losing another 119,000 jobs by September of 2008.

Figure 9.



Manufacturing Employment in Massachusetts, Jan. 1990 - Sept. 2008

The long-term decline in manufacturing has persisted despite the 1995 enactment of a significant tax cut for manufacturing companies, which was fully implemented in 2001 after a phase-in period. Known as the "single sales factor apportionment formula," this tax cut altered the manner in which the state's corporate income tax is determined for manufacturing companies. It 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, the single sales factor apportionment formula was a "bold step towards restoring Massachusetts as a manufacturing state."¹² Yet, as Figure 9 makes clear, the single sales factor apportionment formula (designated as SSF in the figure) did not restore Massachusetts as a manufacturing state. This tax cut has, however, cost the Commonwealth hundreds of millions of dollars. According to the Department of

¹² "Corporate Tax Breaks Approved," *Boston Globe*, November 16, 1995, p. 45.

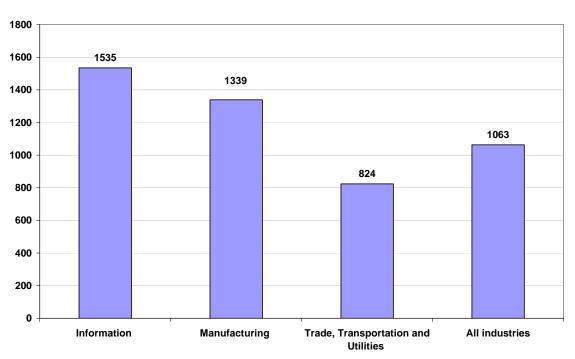
Revenue, the presence of a single sales factor apportionment formula for manufacturers is expected to reduce corporate income taxes by \$84.3 million in fiscal year 2009 alone.

In addition to manufacturing, employment in two other important supersectors within the Massachusetts economy dropped after the 2001 peak. Trade, transportation and utilities, the second largest employer, provides 17.6 percent of all jobs in the state. This supersector, which includes retail and wholesale trade, transportation and utilities, shed slightly more than 21,000 jobs between 2001 and 2007. The information sector, which includes all press and publications as well as the movie and recording industries, saw a decrease of 23,000 jobs over the same period.

Wages in declining sectors

Jobs of the shrinking sectors in the Massachusetts economy, most notably information and manufacturing, pay some of the state's highest average weekly wages. The steep decline in manufacturing employment brings with it a loss of many well paying jobs. In 2007 manufacturing jobs paid an average weekly wage of \$1,339 well above the average weekly wage of \$1,063 for all industries.

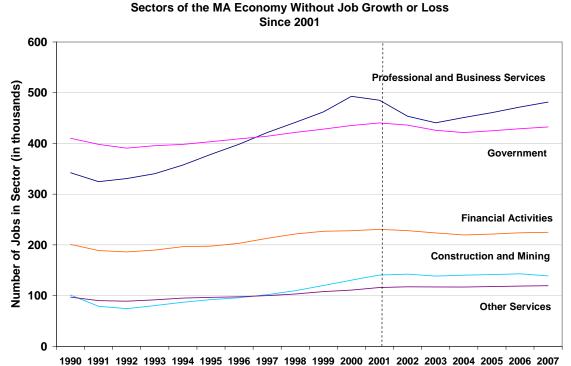
Figure 10.



Average Weekly Wage in Declining Sectors of the MA Economy, 2007

The 2001 recession also led to a decline in high-paying jobs in the information sector. The information sector's weekly wage of \$1,535 was the second highest in the state, after financial activities.

Figure 11.

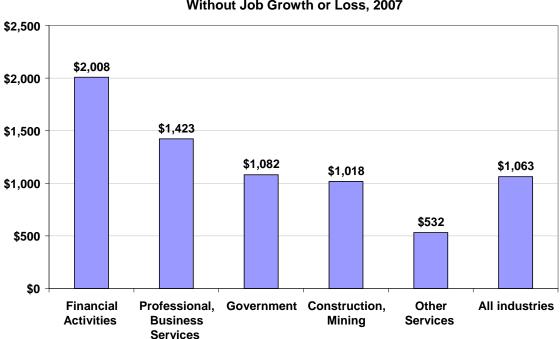


Sectors in the Economy without job growth or loss since 2001

Employment in the remaining supersectors of the Massachusetts economy showed neither job growth nor job losses between 2001 and 2007. Employment in some of the supersectors, such as financial activities and professional and business services did fluctuate with the economy. Despite these fluctuations, as seen in Figure 11, overall employment levels in 2007 compared with 2001 remained relatively unchanged.

Employment in the other supersectors including government, construction, mining and other services, have neither gained nor lost a significant number of jobs during the last business cycle.

Figure 12.



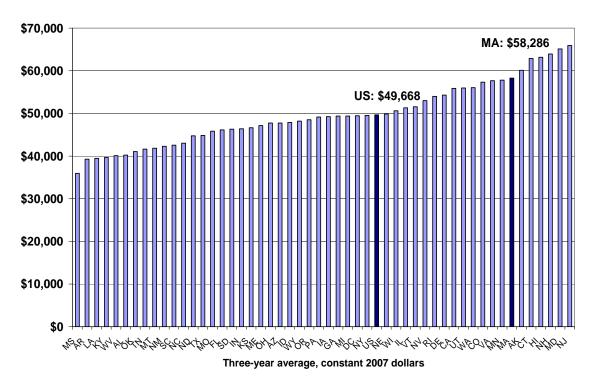
Average Weekly Wage in Sectors of the MA Economy Without Job Growth or Loss, 2007

The average weekly wages in the supersectors with little change in employment since 2001 varied widely. The financial activities sector, which accounts for 6.9 percent of all jobs in Massachusetts, paid some of the highest wages in the state. Employees in this sector made an average weekly salary of \$2,008. Government jobs, which account for 13.2 percent of all jobs in the state, paid an average weekly salary of \$1,082, comparable to the average weekly pay for all industries.

INCOMES AND WAGES

Compared to the country as a whole, Massachusetts remains affluent, with wages and incomes above, and poverty and unemployment rates below, national levels. However, the state's recent wage gains have been concentrated among high earners, largely leaving low- and middle-wage earners behind.

Figure 13.



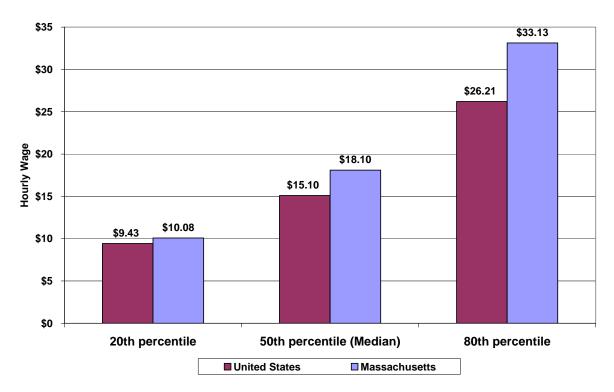
Median Household Incomes, 2005-2007

Massachusetts Wages and Income from a National Perspective

As Figure 13 shows, for the most recent three-year rolling average provided by the Bureau of Labor Statistics, Massachusetts' median household income¹³ ranks seventh in the nation, 17.4 percent above the national figure. When we look at wages at different levels at different levels of the income scale however, we see a more nuanced story.

¹³ The Census Bureau defines "money income" received by households as: earnings, unemployment compensation, workers' compensation, Social Security, Supplemental Security Income, public assistance, veterans' payments, survivor benefits, disability benefits, pension or retirement income, interest, dividends, rents/royalties/estates/trusts, educational assistance, alimony, child support, financial assistance from outside of the household, other income. More information is available at: http://www.census.gov/prod/2007pubs/p60-233.pdf, Appendix A.

Figure 14.



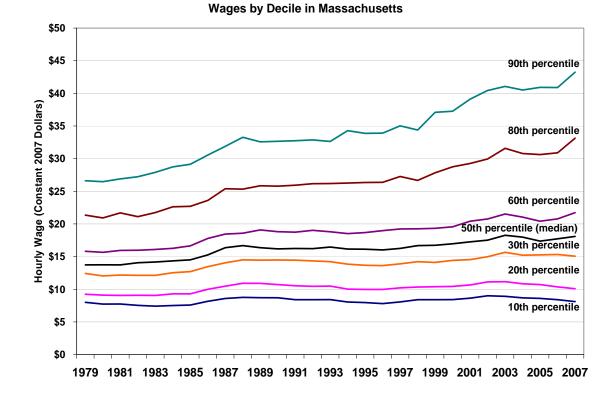
Comparison of Hourly Wages, Massachusetts and the US, 2007

When wages are disaggregated by percentile, it is clear that the relative difference in earnings between the state and the nation is not equal across wage levels. As Figure 14 demonstrates, the 20th percentile wage in Massachusetts exceeds that of the nation by 6.8 percent, while the median wage in Massachusetts exceeds the national median wage by nearly 20 percent. Massachusetts workers earning wages in the 80th percentile, exceed the national average by 26 percent. Simply put, the affluence of Massachusetts, compared to the nation, is felt the least by low-wage workers. Looking solely at median wages in Massachusetts earn.

Looking at Wages in Massachusetts over Time – Growing Inequality

In order to get a more complete picture of wages and wage growth in Massachusetts, it is important to track wage changes over time. Doing this provides a context for examining wage inequality and growth. Specifically, it provides guidance for whether or not wage inequality have been improving, remaining the same, or getting worse.

Figure 15.



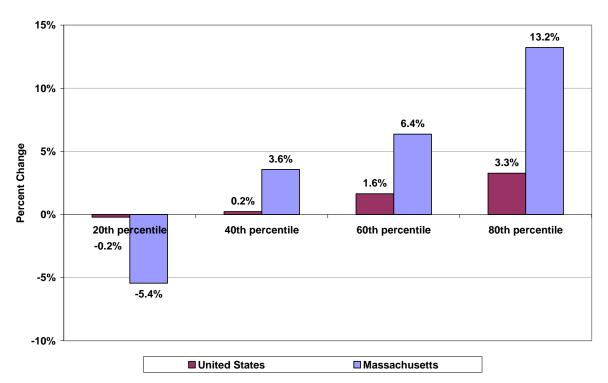
As the Massachusetts economy began recovering from the 2001 economic downturn, the real wages of the lowest-income workers actually fell, while those of the highest wage earners increased. Figure 15 shows how wages for each decile have changed since 1979, and of more interest, since 2001. Low-wage workers in Massachusetts were making less in September 2007 than they did in 2001, both in real dollars and compared to other wage earners. Between 2001 and 2007 the real hourly wages for workers in the 10th and 20th percentiles decreased 52 and 58 cents respectively. Perhaps even more troubling, these decreases took place in a time when every other wage decile in the state saw an increase in real wages. In 2001, a 10th percentile wage was almost exactly half of a 50th percentile wage. In 2007, a 10th percentile wage had lost 10 percent of its value compared to the 50th percentile wage.

In the same six-year period from 2001 to 2007, the middle class saw the gap between high earners and themselves grow as well. In 2001, a 50^{th} percentile wage represented 59 percent of an 80^{th} percentile wage. By 2007, the 50^{th} percentile wage had dropped to less than 55 percent of the 80^{th} percentile wage.

Higher-wage earners of Massachusetts enjoyed substantial increases in their incomes between 2003 and 2007. The same increases in earnings cannot be said of low-income workers in the state, who actually saw their inflation-adjusted wages decrease over the same period. In particular, between 2003 and 2007, the median hourly wage fell more sharply here than in 27 other states.

Looking at wages in Massachusetts by decile, it becomes apparent that the relative affluence of Massachusetts hides some disturbing trends regarding inequality. Low-wage workers earned less in 2007 than they did in 2001 after adjusting for inflation, while high-wage workers earn substantially more. At the same time, the gap between low-income and middle-income workers has grown wider. To determine whether these problems are simply a reflection of a national trend, or a problem specific to Massachusetts, it is important to make comparisons to national data.

Figure 16.



 $Change \ in \ Real \ Hourly \ Wage, \ Massachusetts \ and \ the \ US, \ 2001-2007$

There has been a growing trend of wage inequality in the nation, but the problem is even more pronounced in Massachusetts. Figure 16 shows that the earnings trend for each quintile from 2001 to 2007 is substantially greater in magnitude in Massachusetts than in the nation as a whole. While this means the state's upper quintile was more prosperous than the nation over this period, those at the low end of the income spectrum saw an even larger drop in earnings than low-income earners in the U. S. overall.

More recent data from the first six months of 2008 does indicate that a recent minimum wage increase in Massachusetts may be beginning to have the intended effect for low-

wage workers¹⁴. In the first half of 2008, wages for the 10th decile were \$9.30, up 11.5 percent over 2007. This increase is the largest real wage increase for the 10th decile of the last decade. Equally interesting is that this real wage increase occurred while wages in the 70th, 80th, and 90th deciles decreased. While it is not yet possible to know if this wage increase is attributable to the minimum wage increase, it is certainly an encouraging data point for low-wage growth in the Commonwealth.

Wages in Massachusetts – Important Trends

Massachusetts remains one of the wealthiest states in the nation. However, this prosperity masks growing differences in earnings between the lower-and middle-income wage earners and middle- and upper-income wage earners. Looking closely at the data, it is apparent that economic gains over the past decade have largely left low-wage earners behind. At the same time, while the middle-income earners are earning higher wages, these increases have not kept pace with high-wage earners, meaning that earnings in the state have become more unequal.

Wage data since the state's passage of the minimum-wage increase was fully implemented in 2008 does give some cause for optimism that low-wages are on the rise, but wage stagnation and income gaps remain two important issues for the state's economy going forward.

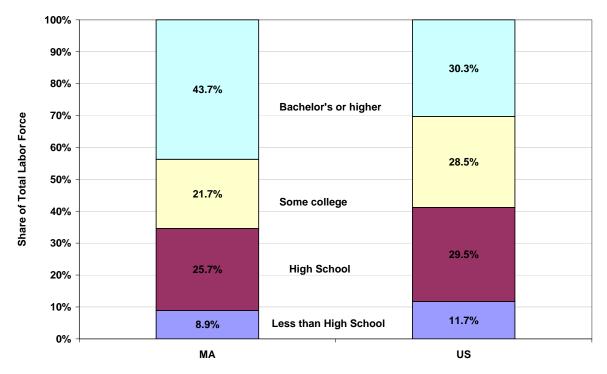
LABOR FORCE DEMOGRAPHICS

The Massachusetts Labor Force v. the National Labor Force

To further examine the state of working in Massachusetts, it is important to consider how the demographic composition of the state's workforce compares to that of the nation at large. Looking at factors such as educational attainment, age and race and ethnicity of the state's workforce, compared to the rest of the country, can provide insight as to the strengths of the Massachusetts economy as well as future challenges.

¹⁴ Massachusetts' minimum wage increase went into effect on January 1, 2007, with another increase effective January 1, 2008. The delay between the minimum wage increase and increase in 10th percentile wages could be because 10th percentile wages are higher than the minimum wage and therefore it takes time for minimum wage increases to create a slight boost for higher wage jobs.

Figure 17.

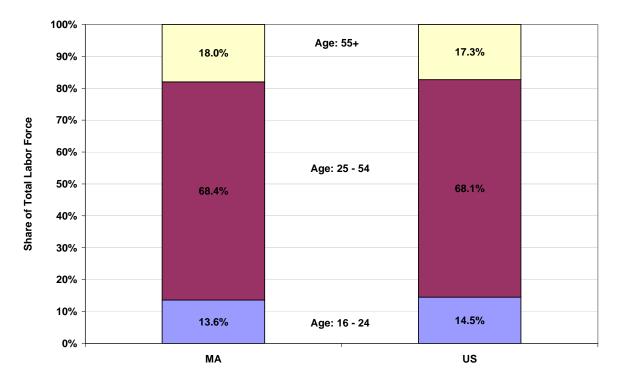


Education of Labor Force in MA and the US, 2007

The Massachusetts workforce differs substantially from the nation in terms of educational attainment. Massachusetts workers are much more likely to have a postsecondary degree than their national counterparts. Massachusetts workers are also more likely to have completed high school. The substantial percentage of Massachusetts workers with a bachelor's degree or higher indicates one of the great strengths of the state's economy: a highly educated workforce.

While educational attainment in Massachusetts is not the same across different racial and ethnic groups, the higher rates of postsecondary education are consistent. Nationally 45.8 percent of African Americans 25 and over have received some postsecondary education. In Massachusetts, more than 50 percent of African Americans 25 and over have had some post-secondary education.

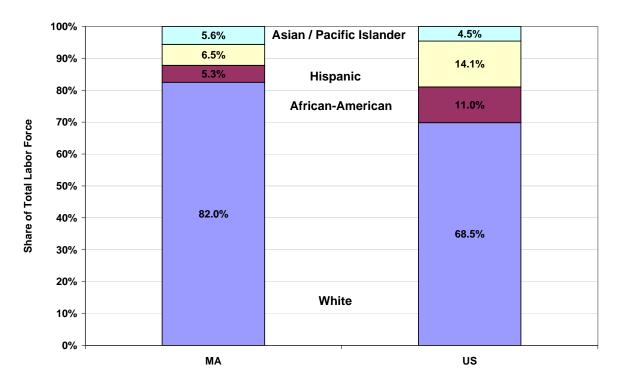
Figure 18.



Age of Labor Force in MA and the US, 2007

While education is an economic asset, the age of the state's workforce mirrors a worrying national trend. The workforce is aging as the baby boom generation begins to reach retirement age. The chart above illustrates that Massachusetts has a slightly older workforce than the nation as a whole. As more and more workers reach retirement age, the state and the nation may face difficulties in replacing these skilled workers.

Figure 19.



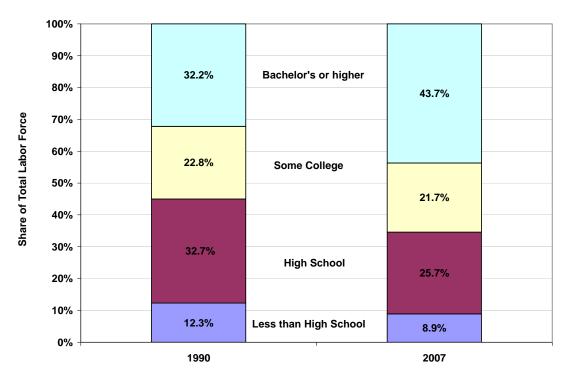
Race / Ethnicity of Labor Force in MA and the US, 2007

The Massachusetts workforce is substantially less racially and ethnically diverse than that of the nation at large. Eighty-two percent of the labor force in Massachusetts is non-Hispanic white, compared to 68.5 percent nationally, a difference of 13.5 percentage points. In addition, Hispanic and African American workers comprise less than half the share of the workforce than they do nationally. It is important to note that the differences between the racial and ethnic diversity of the workforce in Massachusetts and the nation at large reflect differences in their respective populations as well. For example, African American's make up fewer than 6 percent of the total population in Massachusetts, while nationally African American's comprise more than 12 percent of the population.

The Massachusetts Labor Force over Time: 1990 v. 2007

In order to improve our understanding of how the state's economy is developing, it is essential to look at how the workforce has changed in the past two decades. The following charts demonstrate that the state's labor force has undergone substantial transformation since 1990, in terms of educational attainment, age and racial diversity.

Figure 20.

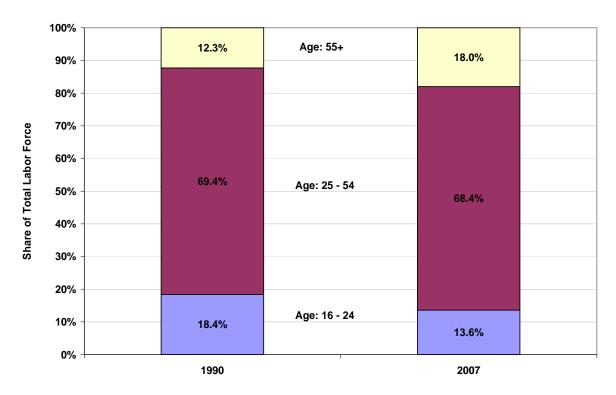


Education of Labor Force in Massachusetts, 1990 & 2007

As demonstrated by Figure 20, the changes in the educational attainment of the state's workforce are both substantial and impressive. In the last 17 years, the number of workers with a bachelor's degree or higher has increased by almost 36 percent. At the same time, fewer and fewer workers enter the job market with less than a high school degree. Over this period, the percentage of these low-skilled workers dropped by more than one quarter. Educational attainment has always been strength of the state's workforce and that asset has increased greatly over the last twenty years.

Changes in educational attainment among racial and ethnic minority populations have differed in the last decade. While a majority of the state's African American population, aged 25 and older, now has some post secondary education, the educational attainment among Hispanics and Latinos has seen a decline over the same time period. In 2000, 34.6 percent of Hispanics and Latinos 25 and older had some post secondary education. By 2007, that percentage was only 32.7 percent.

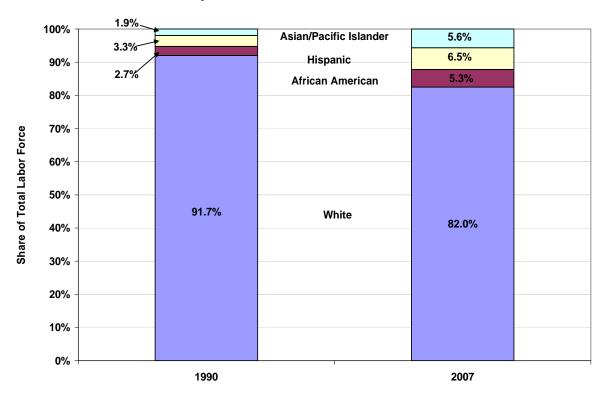
Figure 21.



Age of Labor Force in Massachusetts, 1990 & 2007

While improving levels of educational attainment is a strong positive for the state's workforce going forward, the aging of the state's workforce could be cause for concern. The chart above shows that since 1990, the 55+ segment of the state's workers has increased by almost 50 percent. At the same time the pool of the state's youngest workers, who will be needed to replace these highly-skilled older workers, has dropped by a 25 percent. It is important to note that some of this decline is likely due to higher numbers of young adults finishing high school and going on to a college and graduate school, which would make this segment of the workforce artificially small. Still, as the state's economy evolves in the coming years, the age makeup of the workforce will be important to track.

Figure 22.



Race/Ethnicity of Labor Force in Massachusetts, 1990 & 2007

While earlier data indicated that the state workforce is much less racially and ethnically diverse than the nation, it has become much more diverse over the last two decades, as shown in Figure 22. The three largest minority groups have more than doubled their share of the workforce since 1990, going from less than 10 percent of workers to close to 20 percent. Asian/Pacific Islanders were responsible for the largest share of this increase, but both Hispanic and African American workers saw their numbers almost double as well.

Labor Force Characteristics – Important Trends

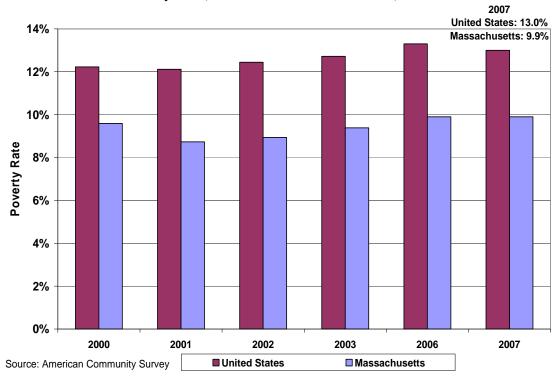
Looking broadly at how the state's workforce has changed over the past two decades and how it compares to the national workforce, two major trends are clear. The state has made great strides in improving the educational attainment of its workforce and significantly outpaces the nation in terms of workers with a bachelor's degree or higher. This strength is particularly important given educational requirements of many of the growing industry sectors, such as health care and educational services, as well as other high-wage sectors including the information, financial, and professional and business services sectors.¹⁵ This fundamental advantage is reflected in the high levels of employment in these sectors in Massachusetts, relative to the rest of the nation and should inform policy discussions of the future of the state's economy.

At the same time, Massachusetts faces a potential challenge with the aging of its population. It is still unclear whether retirements will create labor shortages in some industry sectors, but the relationship between the state's workforce and age will be an important issue in coming years.

Poverty

Between 2001 and 2007, the poverty rate in Massachusetts increased, even as the state's economy was improving. Poverty has increased steadily from 8.7 percent in 2001 to 9.9 percent in 2007. The poverty level, while increasing in Massachusetts between 2001 and 2007, still remains lower than the national rate of 13.0 percent.

Figure 23.



Total Poverty Rates, United States and Massachusetts, 2000 - 2007

¹⁵ For additional discussion of this advantage, see "Economic Impacts of Eliminating the Massachusetts State Income Tax" prepared by Global Insight, Inc. and Sponsored by the Associated Industries of Massachusetts, the Greater Boston Chamber of Commerce, The Massachusetts Business Roundtable and the Massachusetts Taxpayers Foundation. Available at: http://www.masstaxpayers.org/files/tmp 345 10-20-2008 15837 .pdf

CONCLUSIONS

As we look back at Massachusetts' economic performance since the 2001 recession, it is clear that the state did not recover fully. At the high point of the most recent recovery, in June of 2008, Massachusetts still had 89,000 fewer jobs than at the previous employment peak in February of 2001.

Like employment, wages also saw limited and uneven growth during this recovery. As the wage data for various income levels indicates, the higher-income earners benefited far more from the recovery than did lower-income workers. The wealthier residents in the state, those in the 80^{th} percentile, saw their incomes increase by 13.2 percent from 2001 - 2007 while those in the 20^{th} percentile saw a negative real growth in their salaries of 5.4 percent during the same period. The poverty level in Massachusetts also showed no significant decline during the most recent recovery.

Employment in the state does have some bright spots. The state's fastest growing sectors, health care and education services, have grown in areas that pay relatively well. At the same time, the composition of the state's workforce is increasingly better educated. The level of educational attainment of the workforce is vitally important to many of the state's industries like financial activities and business services, as well as parts of the health and education sectors.

Looking at the state of working Massachusetts going forward, it is clear that, like the rest of the nation, Massachusetts will face a severe recession. The challenge facing the Commonwealth will be to address the short-term fiscal and economic crisis without taking actions that could weaken the foundation of the state's long-term economic strength – which is the education and skills of the people who live and work in Massachusetts.