## ECONOMIC INFORMATION - Quarter 3, FY 2009

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

All information is presented on a calendar-year basis unless otherwise indicated. **The section was prepared for release on April 23, 2009. Information in the text, tables, charts, and graphs was current as of March 31, 2009.** Sources of information are indicated in the text or immediately following the charts and tables, and also on the *Sources List* on the last page of the Exhibit A section. Although the Commonwealth considers the sources to be reliable, the Commonwealth has made no independent verification of the information presented herein and does not warrant its accuracy.

Population (p. A-2)	<u>Massachusetts</u>	<u>United States</u>
Estimated Percent Change in Population, April 1, 2000–July 1, 2008	2.3%	8.0%
Personal Income, Consumer Prices, and Poverty (p. A-7)		
Per Capita Personal Income, 2008p	\$50,735	\$39,751
Average Annual Pay, All Industries, 2007	\$55,244	\$44,458
Percent Change in CPI-U*, 2007-2008	3.5%	3.8%
Percent Change in CPI-U*, January 2008 - January 2009	-0.5%	0.0%
Poverty Rate, 2005-2007 Average	11.1%	12.5%
Average Weekly Earnings, Manufacturing Production Workers: 2008	\$825.40	\$724.23
Percent Change from previous year	5.3%	1.8%
Employment (p. A-15)		
Percent Change in Nonfarm Payroll Employment, February 2008-February 2009	-2.4%	-3.1%
Unemployment Rate, 2008	5.3%	5.8%
Unemployment Rate, February, 2009 (seasonally adjusted)	7.8%	8.1%
Economic Base and Performance (p. A-20)		
Percent Change in Gross Domestic Product, 2006-2007	2.5%	2.0%
Percent Change in International Exports, 2007-2008	11.6%	11.8%
Percent Change in Housing Permits Authorized, 2006-2007	-21.6%	-24.0%
Human Resources (p. A-41)		
Expenditure Per Pupil, 2006	\$11,981	\$9,13
Percent of Adults with a Bachelor's Degree or higher, 2007	37.9%	27.5%
*NOTE: Percent changes in the Consumer Price Index for All Urban Consumers (CPI-	-U) are for the	

Massachusetts is a densely populated state with a well-educated population, comparatively high income levels, and a relatively diversified economy. While the total population of Massachusetts has remained fairly stable in the last twenty-five years, significant changes have occurred in the age distribution of the population: dramatic growth in residents between the ages of 20 and 44 since 1980 is expected to lead to a population distributed more heavily in the 65 and over age group in the next twenty-five years. Just as the working-age population has increased, income levels in Massachusetts since 1980 have grown significantly more than the national average, and a variety of measures of income show that Massachusetts residents have significantly higher amounts of annual income than the national average. These higher levels of income have been accompanied by a consistently lower poverty rate and, with the exception of the recession of the early 1990s and a seventeen month stretch in 2006 and 2007, considerably lower unemployment rates in Massachusetts than in the United States since 1980. While the state unemployment rate rose to 7.8 percent in February 2009, the state has seen a slower rise in unemployment than the nation as a whole.

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

## **POPULATION CHARACTERISTICS**

Massachusetts is a relatively slow growing but densely populated state with a comparatively large percentage of its residents living in metropolitan areas. The population density of Massachusetts was estimated as of July 1, 2008 to be 825 persons per square mile, as compared to 85.2 for the United States as a whole. Among the 50 states, only Rhode Island and New Jersey have a greater population density. Massachusetts also ranked just behind the same two states in percentage of residents living in metropolitan areas according to the metropolitan definitions released in 2007 which are based on whole counties. According to this definition, the entire state is considered metropolitan except for the two island counties (99.6 percent of state residents lived outside of these counties in 2008) while Rhode Island, New Jersey and D.C. are wholly metropolitan.

The State's population is concentrated in its eastern portion. The city of Boston is the largest city in New England, with a 2007 population estimated at 608,357, or 9.4 percent of the state's population. Boston is the hub of the seven-county Boston-Cambridge-Quincy, MA-NH Metropolitan Statistical Area (MSA), which includes the two southeastern New Hampshire counties, and which had a total population in 2008 estimated at 4,522,858 or 31.4 percent of the total New England population. The three-county Boston-Quincy, MA Metropolitan Division is the largest component of that MSA, with a total population in 2008 estimated at 1,884,659.

The second largest MSA in the state is the Worcester, MA MSA, with a 2008 population estimated at 783,806. The city of Worcester, situated approximately 40 miles west of Boston with a 2007 population estimated at 175,521, is the second largest city in New England as well as the second largest in the state. As a major medical and education center, the Worcester area is home to 18 patient care facilities, including the University of Massachusetts Medical School, and thirteen other colleges and universities.

The third largest MSA in Massachusetts is the three-county Springfield, MA MSA, with a 2008 population estimated at 687,558. Springfield, the third largest city in the Commonwealth with a 2007 population estimated at 151,342, is located in the Connecticut River Valley in Western Massachusetts and enjoys a diverse body of corporate employers, the largest of which are Baystate Health System, Big Y Supermarkets, MassMutual Financial Group, and Hasbro Games (Milton Bradley). In addition, Springfield is home to three independent colleges.

As the following chart and table indicate, the population in Massachusetts generally grows more slowly than the population of New England and much more slowly than the nation as a whole. According to the Census Bureau's latest revised estimates released in December 2008, the Massachusetts population has only grown by 2.3% since Census 2000; eight states have grown more slowly.



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

		-	(in thousa	<b>972-2008</b> nds)		
	Massa	chusetts	New E	ngland	United	States
		Percent		Percent		Percent
Year	Total	Change	Total	Change	Total	Change
1972	5,760	0.4%	12,082	0.7%	209,284	1.2%
1973	5,781	0.4%	12,140	0.5%	211,357	1.0%
1974	5,774	-0.1%	12,146	0.0%	213,342	0.9%
1975	5,758	-0.3%	12,163	0.1%	215,465	1.0%
1976	5,744	-0.2%	12,192	0.2%	217,563	1.0%
1977	5,738	-0.1%	12,239	0.4%	219,760	1.0%
1978	5,736	0.0%	12,283	0.4%	222,095	1.1%
1979	5,738	0.0%	12,322	0.3%	224,567	1.1%
1980	5,737	0.0%	12,348	0.2%	226,546	0.9%
1981	5,769	0.6%	12,436	0.7%	229,466	1.3%
1982	5,771	0.0%	12,468	0.3%	231,664	1.0%
1983	5,799	0.5%	12,544	0.6%	233,792	0.9%
1984	5,841	0.7%	12,642	0.8%	235,825	0.9%
1985	5,881	0.7%	12,741	0.8%	237,924	0.9%
1986	5,903	0.4%	12,833	0.7%	240,133	0.9%
1987	5,935	0.5%	12,951	0.9%	242,289	0.9%
1988	5,980	0.8%	13,085	1.0%	244,499	0.9%
1989	6,015	0.6%	13,182	0.7%	246,819	0.9%
1990	6,023	0.1%	13,230	0.4%	249,623	1.1%
1991	6,018	-0.1%	13,248	0.1%	252,981	1.3%
1992	6,029	0.2%	13,271	0.2%	256,514	1.4%
1993	6,061	0.5%	13,334	0.5%	259,919	1.3%
1994	6,095	0.6%	13,396	0.5%	263,126	1.2%
1995	6,141	0.8%	13,473	0.6%	266,278	1.2%
1996	6,180	0.6%	13,555	0.6%	269,394	1.2%
1997	6,226	0.7%	13,642	0.6%	272,647	1.2%
1998	6,272	0.7%	13,734	0.7%	275,854	1.2%
1999	6,317	0.7%	13,838	0.8%	279,040	1.2%
2000	6,363	0.7%	13,952	0.8%	282,172	1.1%
2001	6,407	0.7%	14,047	0.7%	285,040	1.0%
2002	6,433	0.4%	14,127	0.6%	287,727	0.9%
2003	6,441	0.1%	14,181	0.4%	290,211	0.9%
2004	6,437	-0.1%	14,202	0.1%	292,892	0.9%
2005	6,434	0.0%	14,208	0.0%	295,561	0.9%
2006	6,443	0.1%	14,233	0.2%	298,363	0.9%
2007	6,468	0.4%	14,259	0.2%	301,290	1.0%

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

The next twenty-five years are expected to bring about a continued change in the age distribution of the Massachusetts population. As the following table and chart show, the share of the 65 and over age group and especially the 85 and over age group will continue to grow. The chart, table and population pyramids (below, and on the following page) show the projected population by age for Massachusetts for 2000 through 2030.

		110			-	on by Age (	Joup		
			2	2000-2030	(in thousa	nds)			NA 1.
Year	0-4	5-17	18-24	25-44	45-64	65-84	85+	All Ages	Median Age
2000	397.3	1,102.8	579.3	1,989.8	1,419.8	743.5	116.7	6,349.1	36.5
2005	406.3	1,119.2	611.8	1,874.6	1,649.0	720.7	137.4	6,518.9	37.8
2010	400.7	1,083.1	670.2	1,769.7	1,817.1	750.6	158.0	6,649.4	38.8
2015	409.7	1,064.2	656.0	1,746.1	1,857.1	856.5	168.9	6,758.6	39.2
2020	422.3	1,070.9	617.5	1,775.8	1,809.3	987.8	172.0	6,855.5	39.5
2025	431.0	1,087.7	616.2	1,782.5	1,703.3	1,137.8	180.1	6,938.6	39.7
2030	430.6	1,115.0	610.7	1,783.9	1,608.7	1,251.2	211.9	7,012.0	40.2

## Projected Massachusetts Population by Age Group 2000-2030



Actual Census 2000 counts as of April 1; all other figures are projections as of July 1 of the indicated year. Interim Population Projections through 2030 released April 21, 2005 by the Population Division, Bureau of the Census, United States Department of Commerce. More recent estimates of the 2005 population are somewhat lower.

#### EXHIBIT A-5 Quarter 3, FY 2009

## **Population Pyramids of Massachusetts**

(percent of total population)



EXHIBIT A-6 Quarter 3, FY 2009

## Personal Income, Consumer Prices, and Poverty

*Personal Income.* Real per capita income levels in Massachusetts increased faster than the national average between 1994 and 1997. In 2000, Massachusetts had its highest per capita income growth in 16 years, exceeding the national growth rate by 2.4 percentage points. From 2001 to 2003 real income in both Massachusetts and the United States declined, with a steeper decline in Massachusetts. However, real income levels in Massachusetts remained well above the national average. In 2006 and 2007, income in the state grew faster than in the nation. For the last fifteen years only the District of Columbia, Connecticut, and New Jersey have had higher levels of per capita personal income. The following graph illustrates these changes in real per capita personal income in Massachusetts, New England, and the United States since 1970.



The following table compares per capita personal income in Massachusetts, New England, and the United States for the period 1970-2008.

			Per Capi	ta Personal I	ncome, 1	970-2008p				
	Noi	minal Incom	e		Real Incor	ne	Per	Percent Change		
	(in cı	urrent dolla	rs)	(i	(in 2008 dollars)			in Real Income		
Year	MA	N.E.	U.S.	MA	N.E.	US.	MA	N.E.	US.	
1970	4,483	4,445	4,085	26,248	24,666	22,668	9.1%	10.8%	11.0%	
1971	4,752	4,680	4,342	26,504	24,879	23,083	1.0%	0.9%	1.8%	
1972	5,109	5,029	4,717	27,517	25,903	24,296	3.8%	4.1%	5.3%	
1973	5,547	5,481	5,231	28,199	26,578	25,366	2.5%	2.6%	4.4%	
1974	6,016	5,958	5,707	27,656	26,020	24,924	-1.9%	-2.1%	-1.7%	
1975	6,459	6,381	6,172	27,245	25,536	24,700	-1.5%	-1.9%	-0.9%	
1976	6,998	6,959	6,754	27,452	26,332	25,556	0.8%	3.1%	3.5%	
1977	7,620	7,593	7,405	28,423	26,977	26,309	3.5%	2.4%	2.9%	
1978	8,430	8,413	8,245	29,882	27,781	27,227	5.1%	3.0%	3.5%	
1979	9,385	9,392	9,146	30,177	27,853	27,123	1.0%	0.3%	-0.4%	
1980	10,602	10,629	10,114	30,211	27,773	26,427	0.1%	-0.3%	-2.6%	
1981	11,798	11,846	11,246	30,249	28,058	26,637	0.1%	1.0%	0.8%	
1982	12,941	12,871	11,935	31,894	28,717	26,628	5.4%	2.3%	0.0%	
1983	14,009	13,829	12,618	33,039	29,894	27,276	3.6%	4.1%	2.4%	
1984	15,723	15,422	13,891	35,346	31,958	28,785	7.0%	6.9%	5.5%	
1985	16,910	16,546	14,758	36,381	33,108	29,530	2.9%	3.6%	2.6%	
1986	18,148	17,722	15,442	38,070	34,814	30,335	4.6%	5.2%	2.7%	
1987	19,575	19,119	16,240	39,346	36,236	30,779	3.3%	4.1%	1.5%	
1988	21,341	20,811	17,331	40,443	37,875	31,542	2.8%	4.5%	2.5%	
1989	22,342	22,083	18,520	40,051	38,343	32,157	-1.0%	1.2%	1.9%	
1990	23,043	22,712	19,477	39,047	37,414	32,085	-2.5%	-2.4%	-0.2%	
1991	23,432	22,969	19,892	38,036	36,309	31,445	-2.6%	-3.0%	-2.0%	
1992	24,538	24,172	20,854	38,866	37,094	32,002	2.2%	2.2%	1.8%	
1993	25,176	24,752	21,346	38,755	36,880	31,805	-0.3%	-0.6%	-0.6%	
1994	26,303	25,687	22,172	39,967	37,318	32,211	3.1%	1.2%	1.3%	
1995	27,457	26,832	23,076	40,748	37,907	32,601	2.0%	1.6%	1.2%	
1996	28,933	28,194	24,175	41,702	38,689	33,174	2.3%	2.1%	1.8%	
1997	30,498	29,687	25,334	42,754	39,824	33,984	2.5%	2.9%	2.4%	
1998	32,524	31,677	26,883	44,585	41,841	35,509	4.3%	5.1%	4.5%	
1999	34,227	33,126	27,939	45,773	42,810	36,107	2.7%	2.3%	1.7%	
2000	37,753	36,120	29,847	48,398	45,161	37,318	5.7%	5.5%	3.4%	
2001	38,877	37,332	30,582	47,783	45,385	37,179	-1.3%	0.5%	-0.4%	
2002	38,855	37,378	30,838	46,541	44,734	36,907	-2.6%	-1.4%	-0.7%	
2003	39,431	37,966	31,530	45,517	44,425	36,894	-2.2%	-0.7%	0.0%	
2004	41,420	40,081	33,157	46,535	45,683	37,791	2.2%	2.8%	2.4%	
2005	43,315	41,736	34,690	47,112	46,011	38,243	1.2%	0.7%	1.2%	
2006	46,305	44,574	36,794	48,852	47,604	39,295	3.7%	3.5%	2.8%	
2007	48,995	47,221	38,615	50,710	49,034	40,098	3.8%	3.0%	2.0%	
2008p	50,735	48,715	39,751	50,735	48,715	39,751	0.0%	-0.7%	-0.9%	

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

Notes: Using midyear population estimates from the Census Bureau and two CPI-U series from the U.S. Bureau of Labor Statistics for price inflation; p = preliminary.

EXHIBIT A-8 Quarter 3, FY 2009

*Annual Pay in Nominal Dollars.* Massachusetts has seen steady growth in average annual pay over the past decade. Average annual pay is computed by dividing the total annual payroll of employees covered by Unemployment Insurance programs by the average monthly number of employees. Data are reported by employers covered under the Unemployment Insurance programs. While levels of annual pay were nearly equal in Massachusetts and the United States in 1984, average annual pay levels in Massachusetts have grown more rapidly than the national average since that time. The level of annual pay in Massachusetts in 2007 was 24.3 percent higher than the national average: \$55,244 compared to \$44,458.

*Wage and Salary Disbursements*. Wage and salary disbursements by place of work is a component of personal income and measures monetary disbursements to employees. This includes compensation of corporate officers, commissions, tips, bonuses, and receipts in-kind. Although the data are recorded on a place-of-work basis, they are then adjusted to a place-of-residence basis so that the personal income of the recipients whose place of residence differs from their place of work will be correctly assigned to their state of residence. The table below details Wage and Salary Disbursements since 1990. Between 1991 and 2000, Massachusetts shares of the New England and overall U.S. totals increased, but in the subsequent years the Massachusetts share of the New England total has remained essentially constant at 50 percent while the Massachusetts share of the U.S. total has dropped back slightly from 3.1 to 2.9 percent.

			3.4	1
Year	<i>U.S.</i>	N.E.	MA MA	A as a pct. of N.E.
1990	\$ 2,743,016	\$171,448	\$83,129	48.5%
1991	\$ 2,811,076	\$170,333	\$82,311	48.3%
1992	\$ 2,972,287	\$177,810	\$86,014	48.4%
1993	\$ 3,076,276	\$183,236	\$89,047	48.6%
1994	\$ 3,227,483	\$190,661	\$93,164	48.9%
1995	\$ 3,415,368	\$201,946	\$99,194	49.1%
1996	\$ 3,615,699	\$213,667	\$105,573	49.4%
1997	\$ 3,874,011	\$230,032	\$113,579	49.4%
1998	\$ 4,179,922	\$247,851	\$123,054	49.6%
1999	\$ 4,463,650	\$266,554	\$134,045	50.3%
2000	\$ 4,825,906	\$293,889	\$150,842	51.3%
2001	\$ 4,939,944	\$300,698	\$153,131	50.9%
2002	\$ 4,976,522	\$298,534	\$150,107	50.3%
2003	\$ 5,107,298	\$304,756	\$151,955	49.9%
2004	\$ 5,388,680	\$321,473	\$160,189	49.8%
2005	\$ 5,665,392	\$332,852	\$165,180	49.6%
2006	\$ 6,020,799	\$350,680	\$174,487	49.8%
2007	\$ 6,355,759	\$371,255	\$185,821	50.1%
2008p	\$ 6,543,998	\$382,375	\$192,782	50.4%

*Consumer Prices.* Higher income levels in Massachusetts relative to the rest of the United States are offset to some extent by the higher cost of living in Massachusetts. The following table presents consumer price trends for the Boston metropolitan area and the United States for the period between 1970 and 2008. The table shows the annual average of the Consumer Price Index for All Urban Consumers (CPI-U) and the percentage change in that average from the previous year. In 2008, the CPI-U for Boston increased by 3.5 percent over the average for 2007, while the index for the United States as a whole increased by 3.8 percent. The latest available data for January 2009 show that the CPI-U for the Boston metropolitan area declined at a rate of 0.5 percent from January 2008, while the index remained flat over the same period for the U.S.

## Consumer Price Index for All Urban Consumers (CPI-U), 1970-2008

(not seasonally adjusted; 1982-1984 base period average=100)

	<b>Boston</b> M		United S	
Year	CPI-U	Pct.Change	CPI-U	Pct. Chang
1970	40.2		38.8	
1971	42.2	5.0%	40.5	4.49
1972	43.7	3.6%	41.8	3.29
1973	46.3	5.9%	44.4	6.29
1974	51.2	10.6%	49.3	11.09
1975	55.8	9.0%	53.8	9.19
1976	60.0	7.5%	56.9	5.89
1977	63.1	5.2%	60.6	6.59
1978	66.4	5.2%	65.2	7.69
1979	73.2	10.2%	72.6	11.39
1980	82.6	12.8%	82.4	13.59
1981	91.8	11.1%	90.9	10.39
1982	95.5	4.0%	96.5	6.29
1983	99.8	4.5%	99.6	3.29
1984	104.7	4.9%	103.9	4.39
1985	109.4	4.5%	107.6	3.69
1986	112.2	2.6%	109.6	1.99
1987	117.1	4.4%	113.6	3.69
1988	124.2	6.1%	118.3	4.19
1989	131.3	5.7%	124.0	4.89
1990	138.9	5.8%	130.7	5.49
1991	145.0	4.4%	136.2	4.29
1992	148.6	2.5%	140.3	3.09
1993	152.9	2.9%	144.5	3.09
1994	154.9	1.3%	148.2	2.69
1995	158.6	2.4%	152.4	2.89
1996	163.3	3.0%	156.9	3.09
1997	167.9	2.8%	160.5	2.39
1998	171.7	2.3%	163.0	1.69
1999	176.0	2.5%	166.6	2.29
2000	183.6	4.3%	172.2	3.49
2001	191.5	4.3%	177.1	2.89
2002	196.5	2.6%	179.9	1.69
2003	203.9	3.8%	184.0	2.39
2004	209.5	2.7%	188.9	2.79
2005	216.4	3.3%	195.3	3.49
2006	223.1	3.1%	201.6	3.29
2000	227.4	1.9%	207.3	2.89
2008	235.4	3.5%	215.3	3.89
Jan-08	232.0		211.1	
Jan-09	230.8	-0.5%	211.1	0.09



*Consumer Confidence, Present Situation, and Future Expectations.* These three measures offer multiple insights into consumer attitudes. The U.S. measures are compiled from a national monthly survey of 5,000 households and are published by The Conference Board, Inc. The survey for Massachusetts is conducted in a similar manner and the results are published by the Mass Insight Corporation, based on quarterly polling of 500 adult residents of Massachusetts. The "Present Situation" index measures consumers' appraisal of business and employment conditions at the time of the survey. The "Future Expectations" index focuses on consumers' expectations for six months hence regarding business and employment conditions, as well as expected family income. The overall "Consumer Confidence" index is a weighted average of the two sub-indices. Although the U.S. measures are compiled by a different source than the Massachusetts measures, according to the Federal Reserve Bank of Boston the numbers are generally comparable. A score of 100 is considered neutral. According to the Conference Board, consumer confidence nationally reached a six year high point of 111.9 in July 2007, but it has declined 74.5 points to an all time low of 37.4 by January 2009. The Mass Insight Corporation reported that as of January, 2009 (the most recent survey month for the quarterly Massachusetts index) the Massachusetts index dropped 13 points to 38, the lowest level since Mass Insight began tracking it in 1991. The Massachusetts index is almost the same as the national index for January. The following table and chart detail the recent record of these measures.

	Janu	ary 2001	January 20	09 (1985=	=100)	
	Consumer Co	onfidence	Present	Situation	Future Exp	ectations
	MA	U.S.	MA	U.S.	MA	U.S.
Jan-01	101.0	115.7	139.0	170.4	76.0	79.3
Apr-01	104.0	109.9	124.0	156.0	91.0	79.1
Jul-01	99.0	116.3	108.0	151.3	93.0	92.9
Oct-01	91.0	85.3	94.0	107.2	90.0	70.7
Jan-02	97.8	107.0	98.1	72.0	97.6	130.0
Apr-02	109.0	108.5	84.0	106.8	125.0	109.6
Jul-02	92.0	97.4	68.0	99.4	108.0	96.1
Oct-02	78.0	79.6	48.0	77.2	97.0	81.1
Jan-03	63.0	78.8	75.3	28.0	81.1	86.0
Apr-03	77.0	81.0	31.0	75.2	108.0	84.8
Jul-03	77.0	77.0	41.0	63.0	101.0	86.3
Oct-03	82.0	81.7	36.0	67.0	112.0	91.5
Jan-04	91.0	97.7	48.0	86.1	119.0	105.3
Apr-04	89.0	93.0	53.0	90.4	113.0	94.8
Jul-04	97.0	105.7	66.0	106.4	119.0	105.3
Oct-04	90.0	92.9	64.0	94.0	108.0	92.2
Jan-05	96.0	105.1	70.0	112.1	114.0	100.4
Apr-05	78.0	97.5	63.0	113.8	88.0	86.7
Jul-05	91.0	103.6	80.0	119.3	99.0	93.2
Oct-05	88.0	85.2	80.0	107.8	95.0	70.1
Jan-06	81.0	106.8	71.0	128.8	87.0	92.1
Apr-06	76.0	109.8	77.0	136.2	76.0	92.3
Jul-06	76.0	107.0	68.0	134.2	81.0	88.9
Oct-06	101.0	105.1	86.0	125.1	111.0	91.9
Jan-07	92.0	110.2	74.0	133.9	104.0	94.4
Apr-07	97.0	106.3	89.0	133.5	102.0	88.2
Jul-07	85.0	111.9	80.0	138.3	90.0	94.4
Oct-07	82.0	87.8	76.0	115.7	86.0	69.1
Jan-08	62.0	87.3	49.0	114.3	71.0	69.3
Apr-08	54.0	62.8	35.0	81.9	67.0	50.0
Jul-08	50.0	51.9	24.0	65.8	68.0	42.7
Oct-08	51.0	38.8	27.0	43.5	66.0	35.7
Jan-09	38.0	37.4	9.0	29.7	58.0	42.5

## Consumer Confidence: Massachusetts and the U.S., January 1999 – January 2009

(Massachusetts index not seasonally adjusted; 1985 = 100)



Mass Insight Corporation (for MA measures, not seasonally adjusted).

EXHIBIT A-12 Quarter 3, FY 2009

*Poverty.* Through 2007, the Massachusetts poverty rate remained well below the national average. Since 1980, the percentage of the Massachusetts poverty universe below the poverty line has varied between 7.7 percent and 12.2 percent. During the same time, the national poverty rate varied between 11.3 percent and 15.1 percent. The estimated poverty rate in Massachusetts decreased from 12.0 percent in 2006 to 11.2 percent in 2007, while the poverty rate in the United States increased from 12.3 percent in 2006 to 12.5 percent in 2007. These official poverty estimates are based on a sample of households and are not adjusted for regional differences in the cost of living. The following chart illustrates the lower poverty rates in Massachusetts (1985 - 2007) compared with the national average during similar periods. Poverty estimates for states are not as reliable as national estimates. Not everyone has a poverty status determined; the poverty universe excludes foster children, college students in dormitories, military personnel in barracks, nursing home residents, and other groups of people in institutionalized settings. Poverty data for 2008 are not yet available.



#### EXHIBIT A-13 Quarter 3, FY 2009

*Transfer Payments*. Transfer payment income is payment to individuals from all levels of government and from businesses, for which no current services are performed, including payments to nonprofit institutions serving individuals. These payments accounted for 13.9 percent of total personal income in Massachusetts in 2007. The chart below does not include transfer payments from business or payments to non-profit organizations. Total transfer payments to individuals in Massachusetts from governments and businesses totaled 42.6 billion dollars for 2007. Fifty-two percent of government transfer payments to individuals were medical payments.



#### EMPLOYMENT

*Employment by Industry* The chart on this page shows the annual level of non-agricultural payroll employment in Massachusetts on the North American Industry Classification System (NAICS) basis for the seven largest NAICS supersectors starting with 1990, the earliest year for which NAICS data are available. The chart on the following page compares the super-sector shares for the 2007-2008 period with the corresponding shares for the 1990-1991 period. Like many industrial states, Massachusetts has seen a steady decline of its manufacturing jobs base over the last two decades, not only as a share of total employment, but in absolute numbers of jobs as well. Several NAICS service sectors and the Financial Activities sector have grown to take the place of manufacturing in driving the Massachusetts economy and now account for more than half of total payroll employment, while Government, Information, Trade, Transportation & Utilities have remained level or declined in share.

After significant declines in 2002 and 2003, total non-agricultural employment in Massachusetts increased 1.0 percent in 2004 and continued to increase every year through 2007. In 2007 employment grew another 1.0 percent, but the state still had 21 thousand (0.6 percent) fewer jobs than in the peak year of 2001. The comparable growth rate for the nation in 2007 was 1.1 percent. The latest seasonally adjusted estimate (3213.8 thousand for February 2009) is about 170 thousand below the peak month in 2001 (3384.0 thousand in February 2001) and 86.6 thousand below the 2008 peak in March (3300.4 thousand).

After years of moderate but steady declines or near-zero growth in the late nineties and early 2000s, manufacturing employment experienced steep annual declines in 2002 (10.2 percent) and 2003 (7.0 percent) before returning to more moderate declines in 2004 (4.0 percent). The most recent declines for manufacturing employment returned to the steady declines prior to 2002, with a 2.1 percent decline in 2007 and a 3.1 percent decline in 2008. The seasonally adjusted estimates for the first two months of 2009 average 4.3 percent below the comparable estimates for 2008.



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



EXHIBIT A-16 Quarter 3, FY 2009

*Largest Employers in Massachusetts.* The following table lists the twenty-five largest private employers in Massachusetts based upon employment covered by the Unemployment Insurance system for March, 2008. Tufts University replaces the Friendly Ice Cream Corporations from the June 2007 list. As noted, the list may not include some employers who do business in the state under multiple legal names or register each facility as a separate employer.



**Unemployment.** The unemployment rate in Massachusetts was consistently below the national average from mid-1995 through November 2005, with similar patterns of gradual improvement after the mid-2003 peak. The Massachusetts rate exceeded the U.S. rate for seventeen months starting in December 2005, but only three of those differences exceeded 0.2%. Since April 2007, the state rate has been at or below the comparable U.S. rate, seasonally adjusted. In April 2008, the Massachusetts rate was 4.1 percent, the lowest it had been since September 2001. By February 2009, the Massachusetts rate had increased to 7.8 percent, the highest it had been since January 1993. The tables and graphs on the following two pages compare the unemployment rate in the state with those in New England the U.S.

## Annual Average Civilian Labor Force and Unemployment, 1969-2008

(in thousands) **Civilian Labor Force** Unemployed **Unemployment Rate** MA Rate as Year MA N.E. U.S. MA N.E. U.S. MA N.E. U.S. Pct. of U.S. 2,832 1969 2,581 5,201 80,734 100 198 3.9% 3.8% 3.5% 111.2% 2,465 253 4.9% 1970 5,128 82,771 113 4,093 4.6% 4.9% 93.7% 1971 2,459 5,157 84,382 163 364 5,016 6.6% 7.1% 5.9% 112.7% 1972 2,487 87,034 4,882 6.5% 5,260 161 363 6.9% 5.6% 115.6% 89,429 1973 2,557 5,387 171 336 4,365 6.7% 6.2% 4.9% 136.1% 1974 2,637 5,514 91,949 190 368 5,156 7.2% 6.7% 5.6% 128.5% 1975 2,725 93,775 11.2% 5,633 305 578 7,929 10.3% 8.5% 131.5% 1976 2,726 5,714 96,158 268 521 9.8% 9.1% 7,406 7.7% 127.3% 1977 2,760 99,009 218 437 6,991 7.9% 7.5% 111.3% 5,820 7.1% 1978 2,809 5,936 102,251 173 343 6,202 6.2% 5.8% 6.1% 101.6% 1979 2,863 104,962 5.5% 6,080 156 326 6,137 5.4% 5.8% 94.8% 1980 2,885 6,154 106,940 164 5.7% 5.9% 80.3% 365 7,637 7.1% 1981 2,938 6,268 108,670 189 400 8,273 6.4% 6.4% 7.6% 84.2% 1982 2,966 6,345 110,204 489 236 10,678 8.0% 7.7% 9.7% 82.5% 1983 2,972 209 10,717 7.0% 72.9% 6,386 111,550 434 6.8% 9.6% 1984 3,032 6,540 113,544 146 318 8,539 4.8% 4.9% 7.5% 64.0% 1985 3,049 6,630 115,461 125 290 8,312 4.1% 4.4% 7.2% 56.9% 1986 3,080 8,237 4.0% 6,724 117,834 123 264 3.9% 7.0% 57.1% 1987 3,114 6,827 119,865 104 228 7,425 3.4% 3.3% 6.2% 54.8% 1988 3,156 6,907 121,669 104 215 6,701 3.3% 3.1% 5.5% 60.0% 1989 3,189 123,869 4.2% 3.9% 79.2% 7,004 132 274 6,528 5.3% 5.6% 1990 3,226 7,128 125,840 204 409 6.3% 5.7% 112.5% 7,047 1991 3,199 7,112 126,346 283 558 8,628 8.8% 7.8% 6.8% 129.4% 1992 3,181 7,105 128,105 573 9,613 8.8% 281 8.1% 7.5% 117.3% 1993 3,173 129,200 232 8,940 7.3% 6.9% 7,062 486 6.9% 105.8% 1994 3,188 7,041 131,056 199 415 7,996 6.2% 5.9% 6.1% 101.6% 1995 3,205 132,304 5.5% 7,053 176 375 7,404 5.3% 5.6% 98.2% 3,231 1996 7,118 133,943 148 340 7,236 4.6% 4.8% 5.4% 85.2% 1997 3.293 7.228 136,297 135 315 6,739 4.1% 4.4% 4.9% 83.7% 1998 3,322 7,257 137,673 113 253 6,210 3.4% 3.5% 4.5% 75.6% 4.2% 1999 3,355 7,327 139,368 110 234 3.3% 3.2% 5,880 78.6% 2000 3,366 7,348 142,583 92 204 5,692 2.7% 2.8% 4.0% 67.5% 2001 3,401 7,424 143,734 126 266 6,801 3.7% 3.6% 4.7% 78.7% 2002 3,424 144,863 363 5.3% 7,496 181 8,378 4.8% 5.8% 91.4% 2003 3.407 7.508 146,510 198 407 8,774 5.8% 5.4% 6.0% 96.7% 2004 3,381 7,476 147,401 177 8,149 5.2% 4.9% 94.5% 366 5.5% 2005 3,377 149,320 7,591 4.8% 4.7% 7,515 164 353 5.1% 94.1% 2006 3,408 7,598 4.8% 151,428 163 343 7,001 4.5% 4.6% 104.3% 2007 3.416 7.633 153.124 153 340 7.078 4.5% 4.5% 4.6% 97.8% 3,424 2008 7,669 154,287 180 415 8,924 5.3% 5.4% 5.8% 91.4%

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





EXHIBIT A-19 Quarter 3, FY 2009

**Unemployment Insurance Trust Fund.** The unemployment insurance system is a federal-state cooperative program established by the Social Security Act and the Federal Unemployment Tax Act to provide for the payment of benefits to eligible individuals when they become unemployed through no fault of their own. Benefits are paid from the Commonwealth's Unemployment Insurance Trust Fund, financed through employer contributions. The assets and liabilities of the Commonwealth Unemployment Insurance Trust Fund are not assets and liabilities of the Commonwealth.

As of February 28, 2009, the Massachusetts Unemployment Trust Fund had a balance of \$906 million, of which the private contributory account portion was \$788 million, compared to a December 31, 2008 balance of \$1.224 billion with a private contributory portion of \$1.106 billion. The March 2009 Unemployment Insurance Trust Fund report indicated that private contributory account reserves were estimated to be \$1.161 billion at the end of 2013 according to the Moody's based outlook, but only \$231 million according to Global Insight's Massachusetts forecast.

## ECONOMIC BASE AND PERFORMANCE

According to the Bureau of Economic Analysis, Gross Domestic Product by State (GDP) is the value added in production by the labor and property located in a state. GDP for a state is derived as the sum of the gross state product originating in all industries in a state. In concept, an industry's GDP, referred to as its "value added", is equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported).

Real GDP is an inflation-adjusted measure of each state's gross product that is based on national prices for the goods and services produced within that state. The estimates of real GDP and of quantity indexes with a base year of 2000 are derived by applying national implicit price deflators to the current-dollar GDP estimates for the 63 Standard Industrical Code (SIC) industries for years 1977-1997, and for the 81 NAICS industries for years 1997 forward. The chain-type index formula that is used in the national accounts is then used to calculate the estimates of total real GDP and of real GDP at more aggregated industry levels.

Between 2001 and 2007, gross domestic product in Massachusetts, New England, and the sum of all states GDP grew approximately 46.2, 47.2, and 54.7 percent respectively in current dollars. Between 2001 and 2007, gross domestic product in Massachusetts, New England, and the sum of all states GDP grew approximately 10.4, 11.6, and 16.6 percent respectively in chained 2000 dollars. U.S. real GDP decreased at an annualized rate of 6.3 percent in the fourth quarter of 2008, (from the third quarter to the fourth quarter), according to estimates released by the Bureau of Economic Analysis. In the third quarter, real GDP decreased 0.5 percent. The Donahue Institute's MassBenchmarks Current Economic Index estimates that the Massachusetts economy also declined at a 4.7 percent annualized rate in the last quarter of 2008.

	Gross Domestic Product - Cumulative Change (millions of chained 2000 dollars)					
Massachusetts			Ne	New England		ited States
Year	GDP	Change from 1997	GDP	Change from 1997	GDP	Change from 1997
1997	\$227,074		\$487,671		\$8,620,955	
1998	\$240,617	6.0%	\$511,374	4.9%	\$9,004,670	4.5%
1999	\$255,189	12.0%	\$531,902	8.9%	\$9,404,251	8.9%
2000	\$274,949	19.8%	\$565,835	15.3%	\$9,749,103	12.6%
2001	\$276,634	20.4%	\$570,313	16.0%	\$9,836,576	13.5%
2002	\$274,997	19.8%	\$568,750	15.8%	\$9,981,850	14.9%
2003	\$280,881	21.9%	\$579,651	17.7%	\$10,225,679	17.4%
2004r	\$286,541	23.9%	\$597,196	20.7%	\$10,580,223	20.8%
2005r	\$289,363	24.9%	\$606,068	22.2%	\$10,899,704	23.9%
2006r	\$298,036	27.9%	\$623,136	25.0%	\$11,240,107	27.0%
2007	\$305,400	30.4%	\$636,223	27.1%	\$11,467,503	29.0%

SOURCE: Bureau of Economic Analysis, U.S. Department of Commerce. Last revised: June 2008. Next release date: June 2009.

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

		(1	nillions of chai	ned 2000 dollars)		
Massachusetts		sachusetts	New	v England	Unite	ed States
Year	GDP	Annual change	GDP	Annual change	GDP	Annual change
1997	\$227,074		\$487,671		\$8,620,955	
1998	\$240,617	6.0%	\$511,374	4.9%	\$9,004,670	4.5%
1999	\$255,189	6.1%	\$531,902	4.0%	\$9,404,251	4.4%
2000	\$274,949	7.7%	\$565,835	6.4%	\$9,749,103	3.7%
2001	\$276,634	0.6%	\$570,313	0.8%	\$9,836,576	0.9%
2002	\$274,997	-0.6%	\$568,750	-0.3%	\$9,981,850	1.5%
2003	\$280,881	2.1%	\$579,651	1.9%	\$10,225,679	2.4%
2004r	\$286,541	2.0%	\$597,196	3.0%	\$10,580,223	3.5%
2005r	\$289,363	1.0%	\$606,068	1.5%	\$10,899,704	3.0%
2006r	\$298,036	3.0%	\$623,136	2.8%	\$11,240,107	3.1%
2007	\$305,400	2.5%	\$636,223	2.1%	\$11,467,503	2.0%

SOURCE: Bureau of Economic Analysis, U.S. Department of Commerce. Last revised: June 2008. Next release date: June 2009.



SOURCE: Bureau of Economic Analysis, U.S. Department of Commerce. Last revised: June 2008. Next release date: June 2009.

## EXHIBIT A-21 Quarter 3, FY 2009



The commercial base of Massachusetts is anchored by the twenty-two 2008 Fortune 1000 companies (twelve of which are Fortune 500) headquartered in Massachusetts. Rejoining the Massachusetts 2008 Fortune 1000 list was PerkinElmer (943rd). Beacon Roofing Supply, a diversified wholesale company, joined the Fortune 1000 (994th). When comparing the 2008 Fortune 1000 to 2007's, eleven Massachusetts companies gained and nine lost rank. Thermo Fisher Scientific climbed 280 places on the list (from 549th to 269th); the largest leap for a Massachusetts company.

Ra	nk			2007 revenues
2008	2007	Company	Industry	(millions)
94	95	Liberty Mutual Ins. Group (Boston)	Insurance: P & C (stock)	\$25,961
99	90	Mass. Mutual Life Ins. (Springfield)	Insurance: Life, Health (mutual)	\$25,268
112	96	Raytheon (Waltham)	Aerospace and Defense	\$22,426
128	126	Staples (Framingham)	Specialty Retailers	\$19,373
132	133	TJX (Framingham)	Specialty Retailers	\$18,647
201	224	EMC (Hopkinton)	Computer Peripherals	\$13,230
225	263	State St. Corp. (Boston)	Commercial Banks	\$11,818
269	549	Thermo Fisher Scientific (Waltham)	Scientific, Photo, Control Equipment	\$9,746
291	287	BJ's Wholesale Club (Natick)	Specialty Retailers	\$9,005
310	308	Boston Scientific (Natick)	Medical Products & Equipment	\$8,357
364	491	Global Partners (Waltham)	Energy	\$6,758
499	648	Perini (Framingham)	Engineering, Construction	\$4,628
572	620	Genzyme (Cambridge)	Pharmaceuticals	\$3,814
631	569	NSTAR (Boston)	Utilities: Gas & Electric	\$3,262
648	698	Biogen Idec (Cambridge)	Pharmaceuticals	\$3,172
712	710	Hanover Insurance Group (Worcester)	Insurance: P & C (stock)	\$2,787
718	728	Analog Devices (Norwood)	Semiconductors and Other Electronic Components	\$2,740
722	780	Iron Mountain (Boston)	Diversified Outsourcing	\$2,730
751	732	Cabot (Boston)	Chemicals	\$2,610
902	873	Commerce Group (Webster)	Insurance: P & C (stock)	\$1,982
943	N.A.	PerkinElmer (Waltham)	Scientific, Photo, Control Equipment	\$1,787
994	N.A.	Beacon Roofing Supply (Peabody)	Wholesalers: Diversified	\$1,646

## EXHIBIT A-22 Quarter 3, FY 2009

## Economic Base and Performance - Sector Detail (NAICS Basis)

The Massachusetts economy remains diversified among several industrial and non-industrial sectors. The four largest sectors of the economy, real estate and rental and leasing, professional and technical services, finance and insurance, and manufacturing, contributed 45.6 percent of the GDP in 2007. The following pie chart displays the latest sector contributions to the Massachusetts GDP.



*GDP Subsectors.* When measured in chained 2000 dollars, the cumulative change in Massachusetts total GDP was 10.4 percent between 2001 and 2007. Between 2001 and 2006 (the latest data available for subsector data), several industries grew much faster than the state average. Industry subsectors that experienced substantial cumulative growth or reduction are listed in the following chart.

(chained 2000 dollars)						
NAICS* Industry Subsector	Cumulative percent change 2001-2006					
Funds, trusts, and other financial vehicles	158.1%					
Motor vehicle, body, trailer, and parts manufacturing	88.2%					
Pipeline transportation	76.9%					
Information and data processing services	68.3%					
Water transportation	-23.9%					
Petroleum and coal products manufacturing	-24.1%					
Electrical equipment and appliance manufacturing	-27.6%					
Textile and textile product mills	-47.0%					

## Gross Domestic Product by Industry in Massachusetts

(millions of chained 2000 dollars)

NAICS* Industry Sector	1999	2000	2001	2002	2003	2004r	2005r	2006r	2007
Total Gross Domestic Product by State	\$255,189	\$274,949	\$276,634	\$274,997	\$280,881	\$286,541	\$289,363	\$298,036	\$305,400
Private industries	231,945	251,645	253,140	251,272	257,997	263,890	266,547	275,233	283,005
Agriculture, forestry, fishing, and hunting	469	540	587	668	701	733	797	772	782
Mining	109	124	141	139	142	153	144	151	194
Utilities	3,218	3,453	3,162	3,137	3,486	3,782	3,706	3,625	3,914
Construction	10,995	11,159	11,850	11,412	10,544	10,301	10,323	9,301	8,08
Manufacturing	30,126	37,204	35,011	35,376	38,071	36,568	36,695	39,222	42,00
Wholesale trade	17,749	16,173	17,819	17,214	17,959	18,042	17,124	17,779	17,64
Retail trade	13,650	14,519	15,713	15,997	16,644	17,028	17,616	17,569	18,09
Transportation and warehousing, excluding Postal Service	4,766	5,172	5,063	4,915	4,835	5,138	5,184	5,337	5,50
Information	12,083	13,017	13,710	13,676	13,936	15,344	17,494	18,853	20,18
Finance and insurance	26,693	29,915	29,890	29,781	30,529	32,001	30,330	32,818	33,92
Real estate, rental, and leasing	34,129	35,587	37,683	37,379	37,952	38,341	38,872	39,663	39,97
Professional and technical services	24,648	28,560	28,572	27,397	27,486	30,480	31,728	33,572	35,10
Management of companies and enterprises	6,870	7,506	6,152	5,673	5,778	5,082	5,223	5,121	5,18
Administrative and waste services	8,252	8,382	7,400	7,042	7,459	7,440	7,793	7,998	8,53
Educational services	5,591	5,915	5,851	5,978	6,003	6,062	5,905	5,851	6,05
Health care and social assistance	19,496	20,363	20,484	21,179	22,241	22,764	23,349	24,418	25,42
Arts, entertainment, and recreation	1,906	1,911	2,023	2,152	2,244	2,337	2,344	2,348	2,50
Accommodation and food services	6,251	6,594	6,510	6,556	6,734	6,952	6,924	7,010	7,10
Other services, except government	5,307	5,549	5,477	5,570	5,596	5,532	5,424	5,370	5,52
Government	23,272	23,304	23,493	23,710	22,960	22,798	22,970	23,056	22,80

\* North American Industry Classification System SOURCE: United States Department of Commerce, Bureau of Economic Analysis. Revised June 2008.

## Cumulative Percent Change in GDP by Industry in Massachusetts

(millions of chained 2000 dollars)

NAICS* Industry Sector	1999 to	2000	2001	2002	2003	2004r	2005r	2006r	2007
Total Gross Domestic Product by State		7.7%	8.4%	7.8%	9.9%	11.9%	12.9%	15.9%	18.4%
Private industries		8.5%	9.1%	8.3%	11.0%	13.3%	14.3%	17.6%	20.4%
Agriculture, forestry, fishing, and hunting		15.1%	23.8%	37.6%	42.6%	47.1%	55.9%	52.7%	54.0%
Mining		13.8%	27.5%	26.1%	28.2%	36.0%	30.1%	34.9%	63.4%
Utilities		7.3%	-1.1%	-1.9%	9.2%	17.7%	15.7%	13.5%	21.5%
Construction		1.5%	7.7%	4.0%	-3.6%	-5.9%	-5.7%	-15.6%	-28.7%
Manufacturing		23.5%	17.6%	18.6%	26.3%	22.3%	22.7%	29.5%	36.7%
Wholesale trade		-8.9%	1.3%	-2.1%	2.2%	2.7%	-2.4%	1.4%	0.7%
Retail trade		6.4%	14.6%	16.4%	20.4%	22.7%	26.2%	25.9%	28.9%
Transportation and warehousing, excluding Postal Service		8.5%	6.4%	3.5%	1.9%	8.1%	9.0%	12.0%	15.0%
Information		7.7%	13.1%	12.8%	14.7%	24.8%	38.8%	46.6%	53.7%
Finance and insurance		12.1%	12.0%	11.6%	14.1%	19.0%	13.7%	21.9%	25.3%
Real estate, rental, and leasing		4.3%	10.2%	9.4%	10.9%	11.9%	13.3%	15.3%	16.1%
Professional and technical services		15.9%	15.9%	11.8%	12.1%	23.0%	27.1%	32.9%	37.5%
Management of companies and enterprises		9.3%	-8.8%	-16.6%	-14.7%	-26.8%	-24.0%	-25.9%	-24.7%
Administrative and waste services		1.6%	-10.1%	-15.0%	-9.1%	-9.3%	-4.6%	-1.9%	4.7%
Educational services		5.8%	4.7%	6.9%	7.3%	8.3%	5.7%	4.8%	8.2%
Health care and social assistance		4.4%	5.0%	8.4%	13.4%	15.8%	18.4%	22.9%	27.1%
Arts, entertainment, and recreation		0.3%	6.1%	12.5%	16.8%	20.9%	21.2%	21.4%	27.9%
Accommodation and food services		5.5%	4.2%	4.9%	7.6%	10.9%	10.5%	11.7%	13.1%
Other services, except government		4.6%	3.3%	5.0%	5.4%	4.3%	2.3%	1.3%	4.2%
Government		0.1%	0.9%	1.9%	-1.3%	-2.0%	-1.2%	-0.9%	-2.0%

\* North American Industry Classification System

SOURCE: United States Department of Commerce, Bureau of Economic Analysis. Revised June 2008.

#### EXHIBIT A-24 Quarter 3, FY 2009

## Gross Domestic Product by Industry in Massachusetts

(as a percent of total GDP chained 2000 dollars)

NAICS* Industry Sector	1999	2000	2001	2002	2003	2004r	2005r	2006r	2007
Total Gross Domestic Product by State	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.09
Private industries	90.9%	91.5%	91.5%	91.4%	91.9%	92.1%	92.1%	92.3%	92.79
Agriculture, forestry, fishing, and hunting	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.39
Mining	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.19
Utilities	1.3%	1.3%	1.1%	1.1%	1.2%	1.3%	1.3%	1.2%	1.3
Construction	4.3%	4.1%	4.3%	4.1%	3.8%	3.6%	3.6%	3.1%	2.6
Manufacturing	11.8%	13.5%	12.7%	12.9%	13.6%	12.8%	12.7%	13.2%	13.8
Wholesale trade	7.0%	5.9%	6.4%	6.3%	6.4%	6.3%	5.9%	6.0%	5.8
Retail trade	5.3%	5.3%	5.7%	5.8%	5.9%	5.9%	6.1%	5.9%	5.9
Transportation and warehousing, excluding Postal Service	1.9%	1.9%	1.8%	1.8%	1.7%	1.8%	1.8%	1.8%	1.8
Information	4.7%	4.7%	5.0%	5.0%	5.0%	5.4%	6.0%	6.3%	6.6
Finance and insurance	10.5%	10.9%	10.8%	10.8%	10.9%	11.2%	10.5%	11.0%	11.1
Real estate, rental, and leasing	13.4%	12.9%	13.6%	13.6%	13.5%	13.4%	13.4%	13.3%	13.1
Professional and technical services	9.7%	10.4%	10.3%	10.0%	9.8%	10.6%	11.0%	11.3%	11.5
Management of companies and enterprises	2.7%	2.7%	2.2%	2.1%	2.1%	1.8%	1.8%	1.7%	1.7
Administrative and waste services	3.2%	3.0%	2.7%	2.6%	2.7%	2.6%	2.7%	2.7%	2.8
Educational services	2.2%	2.2%	2.1%	2.2%	2.1%	2.1%	2.0%	2.0%	2.0
Health care and social assistance	7.6%	7.4%	7.4%	7.7%	7.9%	7.9%	8.1%	8.2%	8.3
Arts, entertainment, and recreation	0.7%	0.7%	0.7%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8
Accommodation and food services	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.3
Other services, except government	2.1%	2.0%	2.0%	2.0%	2.0%	1.9%	1.9%	1.8%	1.8
Government	9.1%	8.5%	8.5%	8.6%	8.2%	8.0%	7.9%	7.7%	7.5

\* North American Industry Classification System

SOURCE: United States Department of Commerce, Bureau of Economic Analysis. Revised June 2008.

## Rank of Industry Contribution to GDP in Massachusetts

(millions of chained 2000 dollars)

NAICS* Industry Sector	1999	2000	2001	2002	2003	2004r	2005r	2006r	200
Fotal Gross Domestic Product by State									
Private industries									
Agriculture, forestry, fishing, and hunting	19	19	19	19	19	19	19	19	
Mining	20	20	20	20	20	20	20	20	
Utilities	17	17	17	17	17	17	17	17	
Construction	10	10	10	10	10	10	10	10	
Manufacturing	2	1	2	2	1	2	2	2	
Wholesale trade	7	7	7	7	7	7	9	8	
Retail trade	8	8	8	8	8	8	7	9	
Transportation and warehousing, excluding Postal Service	16	16	16	16	16	15	16	15	
Information	9	9	9	9	9	9	8	7	
Finance and insurance	3	3	3	3	3	3	4	4	
Real estate, rental, and leasing	1	2	1	1	2	1	1	1	
Professional and technical services	4	4	4	4	4	4	3	3	
Management of companies and enterprises	12	12	13	14	14	16	15	16	
Administrative and waste services	11	11	11	11	11	11	11	11	
Educational services	14	14	14	13	13	13	13	13	
Health care and social assistance	6	6	6	6	6	6	5	5	
Arts, entertainment, and recreation	18	18	18	18	18	18	18	18	
Accommodation and food services	13	13	12	12	12	12	12	12	
Other services, except government	15	15	15	15	15	14	14	14	
Government	5	5	5	5	5	5	6	6	

\* North American Industry Classification System

SOURCE: United States Department of Commerce, Bureau of Economic Analysis. Revised June 2008.

*GDP Sector Overview.* Between 2001 and 2007, the portion of the total GDP in chained 2000 dollars, from the private industry sector increased 1.2 percent, and it decreased 1.0 percent in the government sector. Contributions by each industry to total GDP have remained steady for most sectors. The exceptions were information, up 1.7 percent, professional and technical services, up 1.2 percent, and manufacturing, up 1.1 percent. When the 2001 to 2007 industry contributions to total annual GDP are ranked according to their dollar value, the top five have remained fairly constant. In 2007 they were manufacturing, real estate, rental and leasing, professional and technical services, finance and insurance, and health care and social assistance.

*International Trade.* Massachusetts ranked 13th in the United States, and first in New England, with \$28.3 billion in international exports in 2008. This represents an 11.6 percent increase from the previous year's exports from the Commonwealth, while national exports increased by 11.8 percent in the same year. In January 2009, Massachusetts's year-to-date exports totaled \$2 billion, a decrease of 11.8 percent compared with exports for the same period of 2008. National exports were down 21.1 percent and New England's were down 11 percent during the same period. It is not possible to provide balance of trade comparisons for Massachusetts because import data are not compiled on a state-by-state basis.

Massachusetts' five most important trading partners for 2008 were: Canada, \$3.8 billion, United Kingdom, \$3.5 billion, Netherlands, \$2.7 billion, Germany, \$2.5 billion, Japan, \$2.4 billion. Between 2007 and 2008, the most significant growth in Massachusetts exports among its top ten trading partners was to the United Kingdom, 52 percent, and the Netherlands, 20.7 percent.



Percent Change from Prior Year 22.1% -14.7% -4.5% 11.7% 17.4% 0.7% 9.1% 5.4% 11.6%

\$6,604

\$6,528

\$21,899

\$6,385

\$22,052

\$6,965

\$24,057

\$7,717

\$25,351

\$8,321

\$28,293

\$5,706

\$17,490 \$16,705 \$18,652

\$6,150

\$20,514

\$5,745

All other countries

Total Exports

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

#### EXHIBIT A-26 Quarter 3, FY 2009



## Value of International Shipments from Massachusetts

(top ten industry groups ranked by value of latest exports, in millions)

Major Industry Group	2000	2001	2002	2003	2004	2005	2006	2007	2008
Computer And Electronic Products	\$10,215	\$8,122	\$7,022	\$7,688	\$7,526	\$7,019	\$7,522	\$7,716	\$7,832
Chemicals	\$1,600	\$1,534	\$2,259	\$3,216	\$4,910	\$5,285	\$5,189	\$5,258	\$5,481
Miscellaneous Manufactured Commodities	\$1,053	\$1,213	\$1,211	\$1,571	\$1,930	\$2,114	\$2,240	\$2,319	\$3,118
Machinery, Except Electrical	\$2,545	\$2,044	\$1,788	\$1,672	\$2,447	\$2,311	\$2,739	\$2,881	\$2,614
Primary Metal Manufacturing	\$358	\$272	\$247	\$425	\$423	\$405	\$647	\$982	\$2,052
Waste And Scrap	\$106	\$146	\$190	\$184	\$326	\$330	\$597	\$849	\$1,373
Transportation Equipment	\$659	\$449	\$346	\$379	\$454	\$477	\$548	\$926	\$1,186
Fabricated Metal Products, Nesoi	\$649	\$569	\$691	\$534	\$621	\$664	\$679	\$615	\$721
Electrical Equipment, Appliances, And Compon	\$834	\$691	\$649	\$592	\$752	\$810	\$872	\$769	\$624
Plastics And Rubber Products	\$374	\$400	\$407	\$375	\$404	\$470	\$530	\$582	\$586
Total Exports, Top Massachusetts Industries	\$18,393	\$15,438	\$14,809	\$16,636	\$19,792	\$19,884	\$21,563	\$22,898	\$25,588
All other exports	\$2,121	\$2,052	\$1,896	\$2,016	2107.17	\$2,168	\$2,494	\$2,453	\$2,704

SOURCE: World Institute for Strategic Economic Research (WISER). These figures reflect the changeover in export statistics reporting to the NAICS system from the SIC system. Categories and state totals are not comparable between systems. Pre-1997 data is not available. 2002 to 2007 data was slightly revised by Census.

EXHIBIT A-27 Quarter 3, FY 2009

*Utilities.* Between 1999 and 2007, the utilities sector of Massachusetts GDP increased 21.5 percent when measured with year 2000 chained dollars. It contributed 1.3 percent to the total Massachusetts Real GDP in 2007; as it did in 1999. Based on preliminary December 2008 year-to-date data, the Massachusetts electric utilities generated \$9 billion in revenue last year. This was 4 percent more than the same period in 2007, while they sold 2.5 percent less electricity. Massachusetts had the fourth highest electric rate in the country, 16.22 cents per kilowatt hour. The U.S. average was 9.81. Both increased approximately 7 percent from the previous year. Massachusetts Net Electricity Trade Index, which represents a state's electricity self-sufficiency, was 0.76 in 2006. This means it imported one quarter of its electricity supply, 14,586 million kilowatt hours, from out-of-state. In 2006, two-thirds of Massachusetts generating capacity was oil and natural gas based .



EXHIBIT A-28 Quarter 3, FY 2009



*Transportation and Warehousing*. Between 1999 and 2007, the transportation and warehousing sector of Massachusetts GDP increased 15 percent when measured with year 2000 chained dollars. It contributed 1.8 percent to the total Massachusetts Real GDP in 2007; 0.1 percent less than it did in 1999.

Massachusetts' major air and seaports are managed by the Massachusetts Port Authority (Massport), an independent public authority. According to Massport, as of December 31, 2007, airline service at the airport, both scheduled and non-scheduled, was provided by 91 airlines, including nine U.S. major air carrier airlines, 28 non-major domestic carriers, 34 non-U.S. flag ("foreign flag) carriers and 20 regional and commuter airlines. Based on total passenger volume in calendar year 2007 data, Logan Airport was the most active airport in New England and remained the 19th most active in the U.S. according to the Federal Aviation Authority. Massport reported that as of February, year-to-date 2009, total airport flight operations were down 10.4 percent and total airport passengers were down 11.8 percent from the same period in 2008.

Logan was served by 11 all-cargo and small package/express carriers in 2007. According to the FAA, Logan Airport ranked 26th in the nation in total air cargo volume in calendar year 2007. In 2007, the airport handled 1.06 billion pounds of cargo, a 3.7 percent decrease from 2006. Massport reported that as of February, year-to-date 2009, the combined cargo volume was down 20.2 percent and total airport mail was up 11.0 percent from the same period in 2008. Please refer to the Aviation Activity charts on the following page.

At Massport's Port of Boston properties, 2008 total cargo throughput was 15.5 million metric tons, a 1.0 percent increase from 2007. Automobile processing increased 166 percent to 26,779 units, and cruise passenger trips increased 15 percent to 269,911. Total containerized cargo decreased 15 percent to 1.5 million metric tons. Massport reported that between December 2007 and November 2008, total containerized cargo was down 5.0 percent compared to the same period the previous year. The Army Corps of Engineers reported Massachusetts total waterborne cargo shipped or received in 2007 increased, for the first time since 2004, to 2.3 percent to 28.0 million short tons from 2006. Waterborne cargo in New England decreased just 0.5 percent and the U.S decreased 0.9 percent. Please refer to the Waterborne Tonnage by State charts on the following page.

## EXHIBIT A-29 Quarter 3, FY 2009

#### Aviation Activity for Massachusetts Primary Airports

Passenger Boardings	2000	2001	2002	2003	2004	2005	2006	2007
General Edward Lawrence Logan International	13,613,507	11,739,553	11,077,238	11,087,799	12,758,020	13,214,923	13,544,552	13,783,297
Nantucket Memorial	296,451	272,460	253,422	229,300	243,313	252,757	276,866	282,197
Barnstable Municipal-Boardman/Polando Field	205,906	197,106	180,807	158,360	167,522	177,761	206,980	204,152
Worcester Regional	52,916	79,653	37,298	2,234	1,274	2,036	14,823	460
Laurence GHanscom Field	82,204	71,381	40,419	19,375	17,049	13,887	14,560	16,568
Marthas Vineyard	71,150	65,374	59,500	53,011	49,480	48,977	45,881	49,205
New Bedford Regional	22,882	21,786	21,667	21,097	19,686	17,960	15,211	14,567
Provincetown Municipal	15,694	12,986	10,533	11,801	11,424	10,236	11,375	12,459
Total	14,360,710	12,460,299	11,680,884	11,582,977	13,267,768	13,738,537	14,130,248	14,362,905
Cargo - Gross Landed Weight (lbs.)	2000	2001	2002	2003	2004	2005	2006	2007
General Edward Lawrence Logan International	1.405.482.600	1.301.842.100	1.272,185,900	1,199,383,800	1.172.103.700	1.148.881.400	1,100,485,850	1.059.947.900

#### Change in Aviation Activity at Massachusetts Primary Airports

Passenger Boardings	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
General Edward Lawrence Logan International	-13.8%	-5.6%	0.1%	15.1%	3.6%	2.5%	1.8%
Nantucket Memorial	-8.1%	-7.0%	-9.5%	6.1%	3.9%	9.5%	1.9%
Barnstable Municipal-Boardman/Polando Field	-4.3%	-8.3%	-12.4%	5.8%	6.1%	16.4%	-1.4%
Worcester Regional	50.5%	-53.2%	-94.0%	-43.0%	59.8%	628.0%	-96.9%
Laurence G Hans com Field	-13.2%	-43.4%	-52.1%	-12.0%	-18.5%	4.8%	13.8%
Martha's Vineyard	-8.1%	-9.0%	-10.9%	-6.7%	-1.0%	-6.3%	7.2%
New Bedford Regional	-4.8%	-0.5%	-2.6%	-6.7%	-8.8%	-15.3%	-4.2%
Provincetown Municipal	-17.3%	-18.9%	12.0%	-3.2%	-10.4%	11.1%	9.5%
Total	-13.2%	-6.3%	-0.8%	14.5%	3.5%	2.9%	1.6%
Cargo	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
General Edward Lawrence Logan International	-7.4%	-2.3%	-5.7%	-2.3%	-2.0%	-4.2%	-3.7%

SOURCE: Federal Aviation Administration Jul 2008,

 $http://www.faa.gov/airports\_airtraffic/airports/planning\_capacitypassenger\_allcargo\_stats/$ 

Waterborne Tonnage by State (In Units of 1,000 Tons)											
State	2000	2001	2002	2003	2004	2005	2006	2007			
U.S. total	2,424,596	2,386,558	2,340,292	2,394,199	2,551,939	2,527,622	2,588,440	2,563,972			
Maine	31,769	30,586	29,140	31,698	32,447	32,353	28,103	26,839			
Massachusetts	26,973	26,446	26,117	30,655	31,787	28,812	27,411	28,043			
Connecticut	18,959	18,267	17,610	18,579	20,075	19,617	19,340	20,148			
Rhode Island	9,089	9,170	8,437	9,417	9,764	10,972	11,016	11,184			
New Hampshire	4,462	4,447	4,108	4,971	4,795	5,254	4,823	4,026			
Vermont	0	0	0	0	0	0	0	0			
New England	91,252	88,916	85,412	95,320	98,868	97,008	90,693	90,240			

## Waterborne Tonnage by State - Percent Change from Previous Year

		0 2		0,0			
State	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007
U.S. total	-1.6%	-1.9%	2.3%	6.6%	-1.0%	2.4%	-0.9%
Maine	-3.7%	-4.7%	8.8%	2.4%	-0.3%	-13.1%	-4.5%
Massachusetts	-2.0%	-1.2%	17.4%	3.7%	-9.4%	-4.9%	2.3%
Connecticut	-3.6%	-3.6%	5.5%	8.1%	-2.3%	-1.4%	4.2%
Rhode Island	0.9%	-8.0%	11.6%	3.7%	12.4%	0.4%	1.5%
New Hampshire	-0.3%	-7.6%	21.0%	-3.5%	9.6%	-8.2%	-16.5%
Vermont	-	-	-	-	-	-	-
New England	-2.6%	-3.9%	11.6%	3.7%	-1.9%	-6.5%	-0.5%

SOURCE: Army Core of Engineers, Waterborne Commerce Statistics Center (WCSC) Feb 2008, http://www.iwr.usace.army.mil/ndc/wcsc/wcsc.htm

EXHIBIT A-30 Quarter 3, FY 2009

*Construction and Housing.* In 2007, construction activity contributed 2.6 percent to the total Massachusetts Gross Domestic Product (GDP) when measured in 2000 chained dollars. The construction sector contributed 4.3 percent to state GDP in 2001. Overall loss between 2001 and 2007 was 1.6 percent in real dollars.

	Massa	chusetts	New 1	England	United	l States
	Total	Percent	Total	Percent	Total	Percent
Year	Permits	Change	Permits	Change	Permits	Change
1969	33,572		70,539		1,330,161	
1970	38,330	14.2%	74,068	5.0%	1,354,746	1.8%
1975	17,697	-27.5%	41,645	-21.0%	934,511	-12.4%
1980	16,055	-20.4%	40,195	-25.1%	1,171,763	-23.6%
1981	15,599	-2.8%	38,067	-5.3%	985,600	-15.9%
1982	15,958	2.3%	39,470	3.7%	1,000,500	1.5%
1983	22,950	43.8%	57,567	45.9%	1,605,221	60.4%
1984	28,471	24.1%	72,356	25.7%	1,689,667	5.3%
1985	39,360	38.2%	96,832	33.8%	1,732,335	2.5%
1986	43,877	11.5%	108,272	11.8%	1,771,832	2.3%
1987	40,018	-8.8%	101,222	-6.5%	1,542,499	-12.9%
1988	31,766	-20.6%	82,123	-18.9%	1,450,583	-6.0%
1989	21,634	-31.9%	53,543	-34.8%	1,345,084	-7.3%
1990	15,276	-29.4%	36,811	-31.2%	1,125,583	-16.3%
1991	12,624	-17.4%	31,111	-15.5%	953,834	-15.3%
1992	16,346	29.5%	36,876	18.5%	1,105,083	15.9%
1993	17,715	8.4%	39,225	6.4%	1,210,000	9.5%
1994	18,302	3.3%	40,459	3.1%	1,366,916	13.0%
1995	15,946	-12.9%	37,357	-7.7%	1,335,835	-2.3%
1996	17,360	8.9%	40,425	8.2%	1,419,083	6.2%
1997	17,554	1.1%	42,047	4.0%	1,442,251	1.6%
1998	18,958	8.0%	47,342	12.6%	1,619,500	12.3%
1999	18,967	0.0%	47,632	0.6%	1,663,533	2.7%
2000	18,000	-5.1%	45,335	-4.8%	1,592,267	-4.3%
2001	17,034	-5.4%	44,594	-1.6%	1,636,676	2.8%
2002	17,465	2.5%	49,031	9.9%	1,747,678	6.8%
2003	20,257	16.0%	52,395	6.9%	1,889,214	8.1%
2004	22,477	11.0%	57,858	10.4%	2,070,077	9.6%
2005	24,549	9.2%	58,742	1.5%	2,155,316	4.19
2006	19,580	-20.2%	46,782	-20.4%	1,838,903	-14.7%
2007	15,358	-21.6%	37,532	-19.8%	1,398,415	-24.0%

SOURCES: Federal Reserve Bank of Boston; United States Department of Commerce. June 2008.

*Home Sales.* Sales of existing single-family homes for Massachusetts and the U.S. are presented in the following chart and graph. Seasonally adjusted rates are used in reporting quarterly data to factor out seasonal variations in resale activity.

## **Existing Home Sales** (Quarterly rates are seasonally adjusted, rates in thousands)

	Massa	chusetts	United	l States
Year	Sales	% Change	Sales	% Change
1981	43.0		2,575.0	
1985	60.2	40.2%	3,382.5	31.4%
1990	48.6	-19.4%	3,603.5	6.5%
1995	69.6	-2.6%	4,342.3	-1.5%
1996	81.2	16.6%	4,705.3	8.4%
1997	90.1	11.0%	4,908.8	4.3%
1998	99.9	10.8%	5,585.3	13.8%
1999	98.5	-1.3%	5,922.8	6.0%
2000	88.7	-10.0%	5,831.8	-1.5%
2001	87.5	-1.4%	6,026.3	3.3%
2002	115.9	32.5%	5,631.0	-6.6%
2003	118.3	2.1%	6,175.0	9.7%
2004	141.7	19.8%	6,778.0	9.8%
2005	148.6	4.9%	7,076.0	4.4%
2006	128.1	-13.8%	6,478.0	-8.5%
2007	122.4	-4.4%	5,652.0	-12.8%
2008	103.8	-15.2%	4,912.0	-13.1%
2007.IV	110.8		4,997.0	
2008.IV p*	103.2	-6.9%	4,700.0	-5.9%

#### Change in Existing Home Sales - Annual and Latest Quarter Massachusetts and the United States



EXHIBIT A-32 Quarter 3, FY 2009

*Median Home Prices.* Median sales price of existing single-family homes for the Boston metropolitan area and the United States are presented in the following chart and graph.

	Boston Metropolitan		Boston Prices as a	Boston Annual	U.S. Annual
Year	Area	United States	Percent of the U.S.	Percent Change	Percent Change
1985	\$131	\$75	173.7%	33.5%	4.0%
1990	\$174	\$95	182.6%	-4.2%	2.3%
1991	\$169	\$99	169.5%	-3.0%	4.4%
1992	\$171	\$104	164.6%	1.2%	4.2%
1993	\$171	\$107	160.9%	0.5%	2.8%
1994	\$179	\$109	164.7%	4.4%	2.1%
1995	\$179	\$113	158.6%	-0.2%	3.7%
1996	\$189	\$119	158.7%	5.7%	5.6%
1997	\$195	\$124	157.1%	3.0%	4.0%
1998	\$212	\$130	162.9%	8.9%	5.1%
1999	\$261	\$133	196.2%	23.1%	2.2%
2000	\$330	\$138	238.3%	26.4%	4.1%
2001	\$355	\$146	242.4%	7.6%	5.8%
2002	\$335	\$158	212.1%	-5.5%	8.0%
2003	\$359	\$180	198.9%	6.9%	14.0%
2004	\$390	\$195	199.6%	8.7%	8.3%
2005	\$413	\$219	188.7%	6.0%	12.2%
2006	\$402	\$222	181.3%	-2.7%	1.3%
2007	\$396	\$218	181.6%	-1.6%	-1.8%
2008 p	\$361	\$197	182.9%	-8.9%	-9.5%



EXHIBIT A-33 Quarter 3, FY 2009

*Travel and Tourism.* In 2007, the arts, entertainment, recreation and accommodations industries contributed 3.1 percent to Massachusetts total GDP (real 2000 dollars). The Massachusetts Office of Travel and Tourism (MOTT) reported an annual increase of 1.7 percent in museum and attraction attendance, 12.2 million visitors, in 2008. January 2009 museum and attraction attendance was up 1.1 percent compared to January 2008.

*State Taxes*. Per capita state taxes in Massachusetts were significantly higher, 30.1 percent, than the national average. In fiscal year 2008, the total per capita state tax bill in the United States was \$2,571. Citizens of the Commonwealth however, paid \$3,360 on average, the ninth highest (tenth last year) in the nation and an increase of 4.9 percent from the previous year's \$3,204. In New England, citizens in Connecticut and Vermont paid more per capita, and all New England states except New Hampshire (49th) ranked in the top two fifths for per capita state tax collections.

In fiscal year 2008, over half (57.2 percent) of the state taxes in Massachusetts came from the state income tax. Per capita individual income taxes in Massachusetts were \$1,923, up 8.8 percent from \$1,767 in fiscal year 2008. Also increasing in fiscal year 2008 were corporate net income at 2.7 percent. Sales receipts decreased very slightly at 0.1 percent. Other taxes (licenses, death and gift, and documentary and stock transfer) decreased 3.7 percent in Massachusetts on a per capita basis. Across the New England states, there was wide variation in both total per capita state taxes and in the breakdown of those taxes, as illustrated in the following chart.



*State Government Spending in Massachusetts*. The following chart depicts fiscal 2007 per capita state general expenditures by category for the six New England states and the U.S. average state expenditure. Massachusetts ranked 8th in the nation in per capita expenditures (\$6,779 in 2007), while it ranked 11th and spent \$6,198 in 2006. This represents a 9.4 percent increase in per capita expenditures from 2006 to 2007 with the largest per capita dollar increase in education. Massachusetts spent more state funds per capita on debt service (\$518 in 2007 which was 6.4 percent more than the previous year). This spending is greater than that of the other New England states.



## Fiscal 2007 Per Capita State Government General Expenditures, by Type For the U.S. and the New England States

General expenditures, by function	<i>U.S.</i>	CT	ME	MA	NH	RI	VT
Education	\$1,693	\$1,525	\$1,502	\$1,640	\$1,476	\$1,580	\$3,466
Public welfare	\$1,293	\$1,467	\$1,855	\$1,877	\$1,099	\$1,979	\$1,936
Health & hospitals	\$349	\$610	\$403	\$227	\$152	\$244	\$271
Highways	\$339	\$212	\$378	\$267	\$334	\$251	\$535
Police & corrections	\$195	\$249	\$153	\$274	\$121	\$227	\$309
Natural resource, parks & recreation	\$92	\$43	\$143	\$87	\$58	\$50	\$135
Administration & other	\$1,280	\$1,883	\$1,413	\$1,890	\$1,216	\$2,039	\$1,129
Interest on general debt	\$134	\$326	\$181	\$518	\$277	\$359	\$257
Total	\$5,377	\$6,316	\$6,028	\$6,779	\$4,732	\$6,730	\$8,038
State's rank of total per capita expenditure	2S	13	16	8	35	9	3
SOURCE: U.S. Census Bureau, Governments Di	vision						

		FY2000	-2007					
General expenditures, by function	2000	2001	2002	2003	2004	2005	2006	2007
Education	\$890	\$1,026	\$1,020	\$1,055	\$1,183	\$1,346	\$1,401	\$1,640
Public welfare	\$1,030	\$1,135	\$932	\$824	\$1,647	\$1,719	\$1,843	\$1,877
Health & hospitals	\$308	\$363	\$377	\$372	\$172	\$177	\$187	\$227
Highways	\$439	\$400	\$427	\$378	\$471	\$276	\$261	\$267
Police & corrections	\$191	\$213	\$223	\$230	\$215	\$222	\$248	\$274
Natural resource, parks & recreation	\$58	\$88	\$86	\$95	\$90	\$76	\$81	\$87
Administration & other	\$1,392	\$1,473	\$1,630	\$1,755	\$1,815	\$1,660	\$1,690	\$1,890
Interest on general debt	\$335	\$371	\$418	\$386	\$401	\$435	\$487	\$518
Total	\$4,643	\$5,067	\$5,115	\$5,095	\$5,994	\$5,911	\$6,198	\$6,779
SOURCE: US Census Bureau, Government	s Division.							

## Massachusetts Per Capita State Government General Expenditures, by Type FY 2000-2007

*Federal Government Spending in Massachusetts.* Federal government spending contributes significantly to the Massachusetts economy. In fiscal 2007, Massachusetts ranked twelfth among states in per capita distribution of federal funds, with total spending of \$9,462 per person, excluding loans and insurance. Massachusetts ranked fifteenth in fiscal 2006. While federal spending in Massachusetts has increased every year since 1990, its share of total U.S. spending has declined steadily since 1990. The following chart shows total federal expenditures and the percentage of federal expenditures in Massachusetts. Federal spending includes grants to state and local governments, direct payments to individuals, wage and salary employment, and procurement contracts, and includes only those expenditures that can be associated with individual states and territories.



EXHIBIT A-36 Quarter 3, FY 2009

Half of FY 2007 federal spending in Massachusetts was composed of health care and social programs like Medicare, Medicaid, Social Security, unemployment benefits and Section 8 Housing Vouchers. Massachusetts was 37 percent above the national average in per capita federal grants to state and local governments, receiving \$2,231 per capita compared to a national average of \$1,624. Per capita federal spending on salaries and wages in 2007 was 25 percent lower in Massachusetts than in the rest of the nation at \$620 compared to a national average of \$825, but Massachusetts was 6 percent above the national average in per capita direct federal payments to individuals at \$4,759 compared to a national average of \$4,498. Massachusetts ranked 9th, 12th in 2006, among states in per capita procurement contract awards at \$1,853 compared to a national average of \$1,393 in 2007. The following chart shows the composition of direct federal spending within Massachusetts in fiscal 2007, excluding loans and insurance.



*Federal Contracts.* The total dollar value of all federal contracts performed in Massachusetts increased an average of 10.9 percent a year since 2000, 1.2 percent slower then the 12.1 percent U.S. average. The following two pages compare Massachusetts federal contract dollars to the U.S. total and summarize the fiscal year periods from 2000 to 2008 and the first quarter of 2009.

		MA percent increase			U.S. percent increase
Year	Massachusetts	from previous year	MA portion of all	<i>U.S.</i>	from previous year
2000	\$5,696,739,020		2.7%	\$208,313,935,270	
2001	6,360,307,695	11.6%	2.9%	219,230,677,187	5.2%
2002	6,186,520,976	-2.7%	2.4%	258,979,950,879	18.1%
2003	7,451,025,593	20.4%	2.5%	297,827,910,797	15.0%
2004	8,490,369,594	13.9%	2.5%	343,226,543,362	15.2%
2005	9,737,837,408	14.7%	2.5%	385,148,469,517	12.2%
2006	10,377,337,753	6.6%	2.5%	423,434,842,183	9.9%
2007	11,838,827,113	14.1%	2.6%	456,979,190,060	7.9%
2008	12,834,120,298	8.4%	2.5%	517,897,504,947	13.3%
2009 1Q*	2,445,335,921		2.8%	87,055,806,660	



EXHIBIT A-38 Quarter 3, FY 2009

## Summary of Federal Contracts Performed in Massachusetts

## Fy 2000 To Q1-2009

Total Dollars: \$81,418,421,371 This State Is Ranked 7 Among States For All Years For Federal Contract Awards By Contractor State Total Number Of Contractors: 14,685 Total Number Of Transactions: 637,895

#### **Top 5 Products Or Services Sold**

Gas Turbines And Jet Engines, Aircraft; Prime Moving, And Components	\$8,492,919,614
Engineering Advanced Development (R&D)	\$3,615,691,579
Miscellaneous Communication Equipment	\$2,410,400,429
Other Research And Development Advanced Development (R&D)	\$2,406,307,830
Other Research And Development Engineering Development (R&D)	\$2,307,780,694

## Top 5 Contracting Agencies Purchasing From Contractor(S)

Navy, Department Of The	\$24,603,783,742
Army, Department Of The (Except Corps Of Engineers Civil Program Financing)	\$21,015,735,805
Air Force, Department Of The (Headquarters)	\$16,375,250,167
Defense Logistics Agency	\$2,639,965,608
Veterans Affairs, Department Of	\$2,399,481,273

## **Top 10 Contractors**

Raytheon Company	\$16,691,364,607
General Dynamics Corporation	\$11,315,834,295
General Electric Company	\$9,796,733,135
Massachusetts Institute Of Technology	\$4,573,590,867
The Charles Stark Draper Laboratory Inc	\$2,587,038,092
The Mitre Corporation	\$2,285,000,087
Textron Inc.	\$1,575,086,863
Bae Systems Plc	\$1,198,611,542
L-3 Communications Holdings, Inc.	\$1,011,726,790
Qinetiq North America Operations Llc	\$816,596,393

SOURCE: http://www.usaspending.gov. \*Note: FY 2009 is partial data for the first quarter. March 30, 2009. 2000-2008 revised slightly.

## EXHIBIT A-39 Quarter 3, FY 2009

## Federal Contracts Performed in Massachusetts in:

## Fiscal Year: 2008

Total Dollars: \$12,834,120,298 The Amount For This Search Is 2.5% Of All Awarded Dollars For The Fiscal Year. This State Is Ranked 10 Among States For This Year. Total Number Of Contractors: 6,467 Total Number Of Transactions: 120,008

## **Top 5 Products Or Services Sold**

Engineering Advanced Development (R&D)	\$1,022,242,593
Gas Turbines And Jet Engines, Aircraft; Prime Moving, And Components	\$975,740,268
Defense Electronics And Communication Equipment Basic Research (R&D)	\$740,358,953
Adpe System Configuration	\$632,408,652
Guided Missile Warheads And Explosive Components	\$551,242,658

#### Top 5 Contracting Agencies Purchasing From Contractor(S)

Army, Department Of The (Except Corps Of Engineers Civil Program Financing)	\$4,291,583,218
Navy, Department Of The	\$3,677,395,086
Air Force, Department Of The (Headquarters)	\$2,075,227,902
Missile Defense Agency	\$457,605,574
Veterans Affairs, Department Of	\$324,851,114

## **Top 10 Contractors**

-	
Raytheon Company	\$3,473,701,136
General Dynamics Corporation	\$1,804,433,302
General Electric Company	\$1,327,639,334
Massachusetts Institute Of Technology	\$700,110,219
The Charles Stark Draper Laboratory Inc	\$336,682,123
The Mitre Corporation	\$315,804,637
Bae Systems Plc	\$315,513,068
Mckesson Corporation	\$164,452,659
Qinetiq North America Operations Llc	\$164,185,281
Textron Inc.	\$135,579,812

SOURCE: http://www.usaspending.gov. \*Note: FY 2009 is partial data for the first quarter. March 30, 2009. 2000-2008 revised slightly.

## EXHIBIT A-40 Quarter 3, FY 2009

## Human Resources

*Human Resources.* The availability of a skilled and well-educated population is an important resource for the Commonwealth. The level of education reached by the population of Massachusetts compares favorably with the level in the United States as a whole. In 2007, the Census Bureau's American Community Survey (ACS) reported that Massachusetts had a smaller proportion of persons who had not completed high school (11.6 percent), than the national average, 15.5 percent. Massachusetts had a much higher proportion of persons with a bachelor's degree or more, 37.9 percent, than the nation, 27.5 percent.







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

Higner Ed	ducation Enrol	lment by K	ace and I	Hispanic	Origin in 2	007
		White	Black	Asian		Hispanic of
	Total	alone	alone	alone	Other race	Latino
United States	20,793,948	71.0%	14.0%	6.9%	8.2%	11.7%
Massachusetts	524,147	77.9%	8.6%	8.0%	5.5%	6.4%

Massachusetts is an internationally recognized center for higher education, with 443,316 students in undergraduate, professional and graduate private and public programs in the 2005/2006 school year, according to the New England Board of Higher Education. Survey data released by the Institute of International Education stated that 31,817 foreign students were enrolled in Massachusetts colleges and universities in the 2007/2008 school year. This was an increase of 10.9 from the previous year. Massachusetts is still ranked 4th among states for foreign student enrollment.

The Massachusetts public higher education system is composed of universities, state colleges, and community colleges on 29 campuses with a combined enrollment of 263,836 students in the 2006-07 school year. The system awarded 31,986 degrees in the 2007-08 school year. In addition, Massachusetts has a system of private higher education that accounted for over half of the total enrollment in Massachusetts in 2005. The strength of both public and private colleges and universities as centers for research and education contributes to the high quality of the Massachusetts work force and plays a key role in attracting and retaining business and industry within the state.

The higher education system in Massachusetts is particularly strong in post-graduate, scientific, and technical education, with 1,724 science and engineering doctorates awarded in 2006, 4th in the nation. Massachusetts conferred a total of 2,676 doctorates in 2005. Massachusetts was also ranked 2nd in the U.S. in science and engineering post doctorates in doctorate granting institutions in 2006, with 6,670 post doctorates.

The preeminence of higher education in Massachusetts contributes not only to the quality of its work force, but also to its stature in the nation and the world as a center for basic scientific research and for academic and entrepreneurial research and development. Doctorate-granting institutions in Massachusetts received 4.4 percent or \$2.2 billion of total national academic expenditures on Research and Development in fiscal 2007. Massachusetts is still ranked sixth in the nation behind California, New York, Texas, Maryland and Pennsylvania.

Life sciences receive almost half of the research and development funds performed at Massachusetts educational institutions. Of the \$2.2 billion in total fiscal 2007 outlays for science and engineering research to universities and colleges in Massachusetts, 48.3 percent was for life sciences, 18.3 percent for engineering, 11.3 percent for physical sciences, 9.3 percent for environmental, 4.6 percent for math and computer, 3.9 percent for social sciences, 2.3 percent for other sciences and 1.9 percent for psychology.



EXHIBIT A-43 Quarter 3, FY 2009

*Primary and Secondary Education Data*. Although spending on education is not necessarily an indicator of results, Massachusetts has spent from 12 to 31 percent more per pupil on primary and secondary education than the nation since 1981. During the 2005-2006 school year, Massachusetts increased per student expenditures to \$11,981; 31 percent higher than the national average. The table below shows expenditures per pupil for Massachusetts and the U.S. since FY 1981.

Fiscal Year	Massachusetts	United States	Ratio (MA/U.S.)
1981	\$2,735	\$2,307	1.19
1982	2,823	2,525	1.12
1983	3,072	2,736	1.12
1984	3,298	2,940	1.12
1985	3,653	3,222	1.13
1986	4,031	3,479	1.16
1987	4,491	3,682	1.22
1988	4,965	3,927	1.26
1989	5,485	4,307	1.27
1990	5,766	4,643	1.24
1991	5,881	4,902	1.20
1992	5,952	5,023	1.18
1993	6,141	5,160	1.19
1994	6,423	5,327	1.21
1995	6,783	5,529	1.23
1996	7,033	5,689	1.24
1997	7,331	5,923	1.24
1998	7,651	6,137	1.25
1999	8,106	6,458	1.26
2000	8,444	6,836	1.24
2001	9,038	7,284	1.24
2002	9,856	7,701	1.28
2003	10,223	8,019	1.27
2004	10,693	8,287	1.29
2005	11,267	8,701	1.29
2006	11,981	9,138	1.31

The National Assessment of Educational Progress (NAEP), also known as "the Nation's Report Card," is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and the arts. Under the current structure, the Commissioner of Education Statistics, who heads the National Center for Education Statistics in the U.S. Department of Education, is responsible by law for carrying out the NAEP project.

Since 1990, NAEP assessments have also been conducted to give results for participating states. Those that choose to participate receive assessment results that report on the performance of students in that state. In its content, the state assessment is identical to the assessment conducted nationally. However, because the national NAEP samples were not, and are not currently designed to support the reporting of accurate and representative state-level results, separate representative samples of students are selected for each participating jurisdiction/state. The graphs on the following page compare the data available for Massachusetts to the nation.



EXHIBIT A-45 Quarter 3, FY 2009

# **Sources List**

Listed below are the the web sites of the original data sources used to compile this section (Exhibit A) of the Economic Due Diligence report. The sites are listed in section title order.

**Population Characteristics** United States Department of Commerce, Bureau of the Census http://www.census.gov

## Personal Income, Consumer Prices, and Poverty

U.S. Department of Commerce, Bureau of Economic Analysis http://www.bea.gov/regional/index.htm United States Department of Labor, Bureau of Labor Statistics http://www.bls.gov The Conference Board, Inc. http://www.conference-board.org Mass Insight Corporation http://www.massinsight.com/index.asp U.S. Department of Commerce, Bureau of the Census

http://www.census.gov

## Employment

Mass. Executive Office of Labor and Workforce Development, Division of Unemployment Assistance http://lmi2.detma.org/Lmi/LMIDataProg.asp U.S. Department of Labor, Bureau of Labor Statistics http://www.bls.gov/data/home.htm.

## **Economic Base and Performance**

U.S. Department of Commerce, Bureau of Economic Analysis http://www.bea.gov/regional/index.htm Fortune Magazine http://www.fortune.com/fortune/

## Economic Base and Performance - Sector Detail (NAICS Basis)

U.S. Department of Commerce, Bureau of Economic Analysis http://www.bea.gov/regional/index.htm

U.S. Census Bureau, Foreign Trade Division. Prepared by the World Institute for Strategic Economic Research (WISER) http://www.wisertrade.org Massport http://www.massport.com **Airports Council International** http://www.aci.aero **Federal Aviation Administration** http://www.faa.gov/airports\_airtraffic/airports/ planning\_capacity/passenger\_allcargo\_stats/ **Army Corps of Engineers** http://www.iwr.usace.army.mil.ndc/ **Federal Reserve Bank of Boston** http://www.bos.frb.org **United States Department of Commerce** http://www/census.gov National Association of Realtors; Federal Reserve Bank of **Boston** http://www.bos.frb.org/economic/neei/neeidata.htm **Massachusetts Office of Travel and Tourism** http://www.massvacation.com **U.S. Census Bureau, Governments Division** http://www.census.gov/govs/www/statetax.html http://www.census.gov/govs/www state.html U.S. Department of Commerce, Bureau of the Census, **Consolidated Federal Funds Report** http://www.census.gov/govs/www/cffr.html Federal Spending - contract, grant, and other award data. http://www.usaspending.gov

## Human Resources and Infrastructure

U.S. Census Bureau http://www.census.gov/acs/www/ New England Board of Higher Education http://www.nebhe.org.connection.html National Science Foundation http://www.nsf.gov/statistics United States Department of Education, National Center for Education Statistics http://nces.ed.gov Institute of International Education http://www.iee.org