

4th Quarter 2007

Massachusetts Job Vacancy Survey

Hiring Trends by Industry and Occupation

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During the 4th quarter of 2007 (October to December), the Massachusetts Department of Workforce Development conducted its eleventh semiannual job vacancy survey. Approximately 10,000 companies were selected at random by industry, size and region and asked to provide the following data:

- The number and types of positions for which they were currently recruiting
- The expected educational and training requirements
- The typical pay and benefits offered

The response rate was 81 percent, with data further weighted and scaled to produce statistically valid results.

The Massachusetts Job Vacancy Survey:

- Identifies imbalances in the supply of and demand for labor
- Helps business managers develop effective recruiting strategies
- Identifies industries and occupations in which jobs are available
- Detects emerging labor and skills shortages

Survey Highlights

Business hiring in Massachusetts continued to expand during the 4th quarter of 2007, but at a slower pace. In total, Massachusetts employers posted 92,021 job openings during the 4th quarter of 2007, a 2.7 percent increase from the same quarter a year ago. This was the smallest 4th quarter over-the-year percent increase since the job vacancy survey began. The job vacancy rate (jobs postings per 100 filled positions) also edged up over the year from 3.1 percent to 3.2 percent.

Recruitment remained high in several of the state's key industries including health care and social assistance, professional and technical services, information, as well as in accommodation and food services. Job vacancies continued to rise in virtually all service and professional and technical occupational groups. Demand for information technology (IT), and bio-tech workers, health care practitioners, community and social workers, engineers and business and finance workers remained particularly strong this quarter, and accounted for 30 percent of all job postings – up from 27 percent the year before.

While hiring remained strong in professional and technical and service occupations, job postings were off in construction trades, office and administrative support, and transportation and material moving occupations.

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Industries Accounting for the Most Job Postings

Over the year, the volume of job postings rose 2.7 percent to 92,021. Job openings increased in ten of the state's 18 major industry sectors, and job vacancy rates exceeded the 3.2 percent all-industry average in seven of the major industry sectors.



Health Care and Social Services. Demand for health care and social assistance remained high and fueled the largest number of job postings during the 4th quarter of 2007. The 20,016 open health care positions accounted for 22 percent of all jobs posted during this quarter. Over the year, the volume of open-for-hire positions in health care rose 14 percent while the job vacancy rate climbed to 4.4 percent, up from 4.0 percent a year ago.



Leisure and Hospitality. With the low value of the dollar boosting travel and tourism, particularly international tourism, 4th quarter hiring remained strong in leisure and hospitality which includes accommodation and food service, and arts and entertainment. Along with other services, the 14,415 jobs posted by employers in this combined grouping accounted for 16 percent of all open-for-hire positions during the quarter – up from 13 percent the year before.

Professional and Technical Services and Information. In these two industry sectors where salaries last year averaged about \$78,000, nearly 1.5 times higher than the \$52,435 average salary for all workers across all industries, the job vacancy rate jumped from 4.3 percent in 2006 to 4.9 percent in 2007. This was the highest job vacancy rate recorded among the state's major industry groups during the 4th quarter of 2007. The 14,412 positions open-for-hire were up 17 percent from the prior year.

Retail Trade. With consumer spending showing signs of slowing over the year amid higher energy and food prices and softening growth in retail sales, retailers posted a smaller proportion of job openings this year compared to last year – 21 percent versus 15 percent. Yet at 4.2 percent, the 4th quarter 2007 job vacancy rate in retail trade remained higher than the statewide average for all industries, with 13,504 open-for-hire positions, the fourth largest number posted during this quarter.



Finance and Insurance. Job postings in the financial and insurance sector in Massachusetts continued to increase, but more slowly than in the past. In total, job postings rose 14 percent over the year to 5,432, with 39 percent of these openings centered on core business and financial positions and IT specialties, up from 32 percent a year earlier. Recruiting for sales positions was also strong and accounted for 12 percent of all job postings in finance and insurance, up from 9 percent one year ago.

Manufacturing. With the low value of the dollar helping to boost Massachusetts exports, manufacturing job vacancies rose 5.3 percent over the year to 5,753. Electronics instrument manufacturers accounted for the largest number of postings (13 percent) in this sector followed by pharmaceutical and medicine manufacturers (8 percent), semiconductors (7 percent), and medical equipment and supply manufacturers (6 percent). In total, these four manufacturing industries accounted for 35 percent of all manufacturing job postings. One year ago, the top four manufacturing industries accounting for the most job postings (42 percent) were electronics instrument manufacturers (16 percent), computer equipment manufacturing (9 percent), machine shops and threaded manufacturing (9 percent), and semiconductors (8 percent).

At 2.1 percent, the 4th quarter 2007 job vacancy rate in manufacturing is up from the 1.9 percent rate recorded one year ago, although it still remains one of the lowest job vacancy rates among the state's 18 major industries.

Construction. Job postings in construction fell 12 percent over the year, largely the result of weaker demand for residential construction. At 1.3 percent, the 4th quarter 2007 job vacancy rate in construction remains low and virtually unchanged from the 1.4 percent rate recorded one year ago.



Demand for Workers by Occupation

Demand for managerial, professional and technical workers, and service workers remained strong during the 4th quarter. In total, these two groups, which are at opposite end of the earnings spectrum, accounted for 63 percent of all job postings during the 4th quarter of 2007, up from 56 percent the year before.

Managerial, Professional and Technical Workers. Job postings in the managerial, professional and technical occupational groups increased 14 percent over the year and accounted for 42 percent of all jobs posted during the 4th quarter of 2007, up from 37 percent the year before. Among the 10 professional and technical categories that are tracked, computer and math workers had the largest over-the-year increase in job postings, followed closely by health practitioners, and community and social service workers.

Life, physical and social scientists recorded the 4th largest over-the-year increase in job postings. At 5.6 percent life, physical and social scientists had the highest job vacancy rate of all 21 major occupational groups with job postings increasing 33 percent from one year ago.

Other professional and technical workers with high job vacancy rates during the 4th quarter included health care practitioners (registered nurses, therapists, etc., at 4.4 percent), community and social service providers (social workers and other paraprofessionals at 4.3 percent), and IT workers and engineers (each at 4.2 percent).

Service Workers. Job postings for service workers which include health support workers, protective service workers, food preparers, personal care workers, and building and grounds cleaning and maintenance workers remained high and increased 17 percent over the year. Health support workers continued to have the highest job vacancy rate (4.5 percent) among all service workers despite a drop in job postings over the year.

Office and Sales. The volume of job postings for office and sales workers was off 14 percent over the year. As a result, the proportions of job postings for office and sales workers were down sharply from a year ago. In total, these two groups of workers captured 28 percent of the job postings during the 4th quarter of 2007 – down from 33 percent the year before.

Construction, Production, Transportation. In response to higher energy prices and a weakening of the housing market, job postings for construction, production, and transportation workers fell 14 percent over the year, causing a decline in their hiring demand indices. In total, construction and production and transportation workers accounted for less than 10 percent of the 4th quarter 2007 job postings, down from 11 percent recorded the previous year.



The Importance of Education in the 4th Quarter Job Market

Demand for skilled workers having an associate's degree or higher accounted for 46 percent of all jobs posted during the 4th quarter of 2007. This was up from 38 percent the year before and once again exceeded the 31 percent share of filled jobs that required an associate's degree or higher.

Over the year, the proportion of job postings requiring an associate's degree increased in over half of the state's major industries. These industries included construction, wholesale trade, finance and insurance, management, education, health care and social assistance and other services.

Recruitment of those with specialized skills remained strongest in information, education, and professional and technical services, and finance and insurance. On average, nearly four out of five job postings in these industries required an associate's degree or higher during the quarter, about the same proportion as recorded one year ago.

Regional Hiring

During the 4th quarter of 2007, job vacancy rates varied widely among the state's seven regions, ranging from a high of 4.1 percent in Berkshire County to a low of 2.7 percent in the Pioneer Valley. In Greater Boston, the job vacancy rate average of 3.4 percent, was slightly above the 3.2 percent statewide average. The Greater Boston region accounted for 54 percent of all job vacancies posted during the 4th quarter of 2007, a proportion that exceeded its 51 percent share of employment.

Over the year, the number of job vacancies and the job vacancy rate increased in three of seven regions. Greater Boston recorded an 8 percent increase, the largest over-the-year percentage gain in job vacancies, followed by the Cape and Islands and the Northeast, which each gained four percent more job postings. Job vacancy rates increased by 0.2 percentage points in each of these three regions to 3.4, 3.3, and 3.1 percent, respectively.

In the Berkshires, Central Region, Pioneer Valley and Southeast Region, the volume of job postings fell over the year between one to 10 percent, while job vacancy rates edged down by one-tenth to three-tenths of a percentage point over the year.

In the Central Region, the volume of job postings was off one percent over the year and the job vacancy rate edged down from 3.2 to 3.1 percent.

In the Berkshires, where hiring was down in construction, retail trade, manufacturing, and professional and technical services, the number of job postings fell seven percent and the job vacancy rate slipped from 4.4 to 4.1 percent.

In the Southeast, the volume of job postings declined by seven percent and the job vacancy rate dropped from 3.1 percent to 2.9 percent. A decline in job postings in retail trade and education contributed to the overall drop.

In the Pioneer Valley, where the volume of job postings in retail trade, health care and social assistance, finance and insurance, wholesale trade, and professional and technical services, were off from the previous year, job vacancies fell 10 percent and the job vacancy rate dropped from 3.0 percent to 2.7 percent.



Business Hiring Expectations

In order to detect and help analyze turning points in the demand for workers across the state, employers were asked to describe their hiring plans through the first half of 2008. Six possible responses were provided:

- Will definitely increase
- Will probably increase
- Will stay the same
- Will probably decrease
- Will definitely decrease
- Do not know

Of the nearly 7,700 employers who responded to this question, 30 percent expected to increase hiring, while just eight percent expected to cut jobs. Another 53 percent intended to keep their employment levels the same, and 10 percent were unsure about their future hiring plans.

The net 22 percent projected hiring increase (the percent of employers projecting an increase minus the percent projecting a decrease) for the first half of 2008 is up slightly from the net 21 percent increase forecasted last year at this time.

Industry Hiring Expectations. On an industry basis, the year-over-year change in the outlook for hiring was mixed, with employers in some industries slightly more optimistic than they were the year before while in other industries employers were less optimistic than they were the year before.

In the bellwether professional and technical services sector, which includes IT and biotech firms, the net projected hiring outlook was brighter than it was the year before. In this industry, companies projected a net 41 percent hiring increase for the first half of 2008, up from the prior year when the net projected hiring increase was 38 percent. Other industries where the hiring outlook is stronger than it was the year before include construction, manufacturing, retail trade, transportation and warehousing, information, finance and insurance, real estate, rental and leasing, education, healthcare, accommodation and food services, and public administration.

Industries affected by higher fuel prices and slowing consumer and business spending were generally less optimistic than the previous year. Industries where the projected hiring outlook is weaker than it was the year before include utilities, wholesale trade, management, administrative support and waste management, and arts, entertainment and recreation.

Hiring Expectations by Region. The hiring outlook for the first half of 2008 varied widely by region. Greater Boston area employers continued to report the most optimism. Approximately 33 percent of business respondents in Greater Boston expected to hire additional workers through the first half of 2008 while just six percent intended to cut jobs. Cape and Islands employers reported the weakest outlook with 25 percent expected to hire additional workers over the next six months, and 15 percent projected a decline. It is important to note that hiring on the Cape and Islands is largely seasonal.

The year-over-year change in the net projected outlook for hiring was mixed (see Table 12), with some regional employers slightly more optimistic than they were the year before. In the Pioneer Valley, Northeast, Southeast, and Greater Boston Regions, the net projected outlook for hiring through the first half of 2008 is slightly more optimistic than it was the year before. In the Central region, the net projected outlook for hiring remained essentially unchanged from the year before. In the Cape and Islands, and the Berkshires, the net projected outlook for hiring is down over the year, as employers in these tourist-driven economies expressed concerns over the likely scaling back of consumer spending for vacations and other recreational activities. Employer expectations may be dampened given the continued rise in food and fuel prices.

Hiring Expectations by Firm Size. Employers at the largest companies – defined as those employing 250 or more workers – remained cautiously optimistic about their outlook for hiring through the first half of 2008. Approximately 39 percent of business respondents at large firms planned on hiring additional workers over the next six months, while just five percent projected a decline, for a net projected hiring increase of 34 percent. This compares to a 34 percent net projected hiring for the first half of 2007. Hiring expectations at large firms are a major economic indicator, given their important role in the Massachusetts economy,

Business Training Needs

In order to make better investments in education and training, employers were asked to rate the workplace skills of their new hires in eight categories:

- Oral communication
- Written communication
- Teamwork
- Basic math
- Problem solving
- Information technology
- Professional/technical skills
- Leadership ability

Of the 3,870 employers (39 percent of those sampled) who responded to the question on basic skill proficiencies, 75 percent on average were satisfied with the skills of their new hires in the eight categories. The vast majority of employers, 90 percent, were most satisfied with their new hires' oral communication and teamwork skills, while 77 percent were satisfied with their new employees' problem solving, written communication, and basic math skills. While most employers gave their new employees high ratings in these five skill areas, employers were somewhat less satisfied with their new hires' professional and technical expertise (73 percent), and much less satisfied with their information technology skills (62 percent) and leadership ability (59 percent).

The degree to which employers were satisfied with their new hires' skills varied widely by industry. This may have been because some industries were able to hire more skilled and experienced workers than others. Starting salaries by industry and occupation often reflect these disparities.

For example, while 62 percent of all employers were satisfied with their new hires' IT skills, only 39 percent of employers in accommodation and food services—an industry that hires disproportionately large numbers of first-time job seekers, who tend to lack related work experience—were satisfied with the technological expertise of their new hires.

Other industries where the percentage of employers satisfied with the technological expertise of their new hires was much lower than average included administrative support and waste management (40 percent), and arts and entertainment (42 percent).

In contrast, the employers most likely to be satisfied with their new hires' skills were those in better paying industries such as utilities, professional, scientific and technical services, information, and finance and insurance. On average, some 88 percent of respondents in these industries expressed satisfaction with the skills of their new hires in the eight areas.

In education, another important industry in Massachusetts, an even higher proportion (91 percent) reported satisfaction with the skills of their new hires in the eight areas. This was the highest satisfaction rating among the 18 major industries.

Changes in the availability of skilled workers may change employer satisfaction ratings from one year to the next. In healthcare, where the volume of hiring has been the highest of any of the 18 major industries, the proportion of respondents satisfied with the skills of their new hires averaged 79 percent, down from the 83 percent average recorded last year. This may point to a tightening labor market for some health care workers as well as reflect the challenge of finding qualified job applicants.

Conclusion

Recruitment activity in Massachusetts in several key industries, including biotech, high tech, health care, finance and insurance continued to expand during the 4th quarter of 2007. Job postings for professional and technical workers continued to rise in virtually all categories. In total, managerial, professional and technical job postings rose 14 percent over the year and accounted for 42 percent of all postings during the quarter up from 37 percent the year before.

Although the economic effects of higher oil and gas prices may further weaken the US economy, the projected outlook for hiring in Massachusetts through the first half of 2008 remains stable in many industries like health care, and information and professional and technical services. In these industries where hiring has been the strongest, employers expected to maintain their current pace of hiring, which bodes well for professional and technical workers.

For more information on the results of the 4th quarter 2007 Massachusetts Job Vacancy Survey, turn to the tables and figures appended to this document. If you have any questions about this data or other types of labor market data, please call the Economic Analysis office at (617) 626-5744 or visit the website at www.mass.gov/lmi.

Table 1: Statewide Job Vacancies by Industry, 4th Quarter 2007

Industry Name	No. of Job Vacancies	Job Vacancy Rate**	Percent Private Sector	Percent Part-time	Percent Temporary/ Seasonal	Percent Requiring an Associate's Degree or Higher	Percent Requiring Related Experience	Percent Providing Health Care Benefits
Total, All Industries	92,021	3.2%	93%	28%	11%	46%	52%	74%
Agriculture	*	*	100%	9%	21%	53%	89%	73%
Mining	*	*	100%	0%	43%	0%	50%	100%
Utilities	127	1.0%	76%	9%	8%	55%	72%	86%
Construction	1,601	1.3%	90%	4%	5%	22%	42%	90%
Manufacturing	5,753	2.1%	100%	4%	1%	52%	63%	95%
Wholesale Trade	2,252	2.0%	100%	1%	10%	55%	58%	89%
Retail Trade	13,504	4.2%	100%	54%	26%	10%	28%	47%
Transportation & Warehousing	1,727	1.8%	98%	50%	26%	7%	41%	59%
Information	2,885	3.5%	98%	8%	3%	86%	60%	96%
Finance & Insurance	5,432	3.3%	100%	12%	1%	73%	64%	95%
Real Estate, Rental & Leasing	736	2.1%	100%	24%	1%	46%	34%	93%
Professional & Technical Services	11,527	5.5%	99%	8%	9%	76%	64%	92%
Management	1,508	2.5%	100%	15%	6%	67%	67%	89%
Administrative & Support & Waste Services	3,383	3.7%	100%	10%	3%	25%	42%	89%
Educational Services	4,230	1.3%	50%	26%	10%	84%	52%	78%
Healthcare	20,016	4.4%	97%	35%	4%	58%	62%	76%
Arts, Entertainment & Recreation	1,598	3.7%	96%	48%	49%	25%	27%	19%
Accommodation & Food Services	10,580	4.6%	100%	43%	5%	5%	36%	54%
Other Services	2,237	2.7%	98%	24%	14%	26%	58%	64%
Public Administration	2,862	2.6%	0%	11%	48%	32%	41%	49%

*Confidential

**Calculated by dividing the total number of job vacancies by the total number employed in the industry

Table 2: Number of Job Vacancies, 4th Quarter 2006 vs. 4th Quarter 2007

Industry	4th Quarter 2006			4th Quarter 2007			Net Change	Percent Change
	# of Job Vacancies	Job Vacancy Rate**	Percent Distribution	# of Job Vacancies	Job Vacancy Rate**	Percent Distribution		
Total, all Industries	89,620	3.1%	100%	92,021	3.2%	100%	2,401	2.7%
Agricultural	*	*	0%	*	*	0%	1	1.8%
Mining	*	*	0%	*	*	0%	(7)	-50.0%
Utilities	133	1.1%	0%	127	1.0%	0%	(6)	-4.5%
Construction	1,811	1.4%	2%	1,601	1.3%	2%	(210)	-11.6%
Manufacturing	5,464	1.9%	6%	5,753	2.1%	6%	289	5.3%
Wholesale Trade	1,652	1.5%	2%	2,252	2.0%	2%	600	36.3%
Retail Trade	18,795	5.7%	21%	13,504	4.2%	15%	(5,291)	-28.2%
Transportation & Warehousing	3,806	4.0%	4%	1,727	1.8%	2%	(2,079)	-54.6%
Information	2,224	2.6%	2%	2,885	3.5%	3%	661	29.7%
Finance & Insurance	4,746	3.0%	5%	5,432	3.3%	6%	686	14.5%
Real Estate, Rental & Leasing	216	0.6%	0%	736	2.1%	1%	520	240.7%
Professional & Technical Services	10,132	5.0%	11%	11,527	5.5%	13%	1,395	13.8%
Management	1,493	2.3%	2%	1,508	2.5%	2%	15	1.0%
Administrative & Support	2,382	2.6%	3%	3,383	3.7%	4%	1,001	42.0%
Educational Services	4,395	1.4%	5%	4,230	1.3%	5%	(165)	-3.8%
Healthcare	17,621	4.0%	20%	20,016	4.4%	22%	2,395	13.6%
Arts & Entertainment	1,666	3.7%	2%	1,598	3.7%	2%	(68)	-4.1%
Accommodation & Food Service	7,532	3.3%	8%	10,580	4.6%	11%	3,048	40.5%
Other Services	2,442	2.9%	3%	2,237	2.7%	2%	(205)	-8.4%
Public Administration	3,041	2.4%	3%	2,862	2.6%	3%	(179)	-5.9%

*Not strictly comparable.

**Calculated by dividing the total number of job vacancies by the total number employed in the industry

Table 3: Job Vacancies by Size of Firm, 4th Quarter 2007

Size of Firm	Number of Job Vacancies	Job Vacancy Rate	Percent Part-time	Percent Temporary/ Seasonal	Percent Requiring an Associate's Degree or Higher	Percent Requiring Related Experience
Total, all Firms	92,021	3.2%	28%	11%	46%	52%
Small (5-49 Employees)	38,995	4.0%	30%	11%	35%	48%
Medium (50-249 Employees)	28,021	3.1%	28%	10%	42%	50%
Large (250 or More Employees)	25,005	2.5%	23%	13%	68%	62%

Table 4: Job Vacancies by Region by Industry, 4th Quarter 2007

Industry Title	Massachusetts		Berkshire		Cape Cod & Islands		Central		Greater Boston		Northeast		Pioneer Valley		Southeast	
	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate
Total, All Industries	92,021	3.2%	2,276	4.1%	2,859	3.3%	7,770	3.1%	49,692	3.4%	11,827	3.1%	7,004	2.7%	10,593	2.9%
Agriculture	*	*	*	0.0%	*	7.6%	*	0.0%	*	4.2%	*	8.5%	*	2.8%	*	*
Mining	*	*	*	*	*	*	*	0.8%	*	0.0%	*	0.0%	*	2.3%	*	0.4%
Utilities	127	1.0%	*	1.2%	*	0.8%	*	0.5%	*	0.6%	*	0.6%	*	1.6%	41	1.9%
Construction	1,601	1.3%	*	0.8%	74	1.2%	82	0.7%	989	1.7%	270	1.6%	xs	0.7%	93	0.5%
Manufacturing	5,753	2.1%	137	2.5%	47	2.3%	463	1.3%	2,531	2.6%	1,406	2.4%	483	1.5%	686	1.4%
Wholesale Trade	2,252	2.0%	*	0.9%	*	1.7%	*	2.8%	1,064	1.9%	240	1.5%	106	1.3%	581	2.6%
Retail Trade	13,504	4.2%	420	5.0%	786	4.8%	1,002	3.1%	6,868	5.1%	1,235	2.8%	982	3.0%	2,211	4.1%
Transportation & Warehousing	1,727	1.8%	83	7.7%	130	5.3%	227	2.5%	469	0.9%	262	2.6%	244	2.2%	312	2.2%
Information	2,885	3.5%	22	2.2%	43	2.1%	29	0.8%	2,161	4.2%	361	2.8%	110	2.3%	159	2.3%
Finance & Insurance	5,432	3.3%	xs	2.6%	*	1.3%	470	4.2%	3,898	3.3%	383	3.3%	311	3.1%	290	3.2%
Real Estate, Rental & Leasing	736	2.1%	16	2.7%	*	0.7%	*	3.2%	383	1.8%	16	0.4%	135	4.9%	*	4.5%
Professional & Technical Services	11,527	5.5%	*	3.2%	257	6.9%	448	6.0%	8,119	5.3%	1,308	4.9%	xs	4.9%	1,021	10.5%
Management	1,508	2.5%	xs	4.0%	*	2.6%	65	1.6%	996	2.8%	156	3.1%	117	2.8%	135	1.5%
Administrative & Support & Waste Services	3,383	3.7%	52	4.0%	174	5.3%	437	8.7%	2,134	3.6%	347	3.3%	87	1.9%	152	1.9%
Educational Services	4,230	1.3%	138	2.0%	84	1.0%	501	1.4%	2,242	1.4%	404	1.0%	536	1.3%	325	1.0%
Healthcare	20,016	4.4%	434	4.2%	612	4.1%	2,089	4.7%	10,047	4.5%	2,519	4.3%	1,963	4.2%	2,352	4.1%
Arts, Entertainment & Recreation	1,598	3.7%	*	n/a	10	0.4%	*	6.0%	308	1.6%	326	5.5%	*	4.8%	286	3.9%
Accommodation & Food Services	10,580	4.6%	471	7.5%	454	3.5%	1,047	5.3%	5,359	4.9%	1,112	3.7%	959	4.6%	1,178	3.7%
Other Services	2,237	2.7%	20	1.0%	91	3.3%	274	4.3%	1,014	2.4%	222	2.1%	196	2.5%	420	3.8%
Public Administration	2,862	2.6%	*	3.0%	*	0.2%	128	1.2%	1,037	1.8%	1,246	8.9%	176	1.7%	221	1.8%

*Confidential

**Calculated by dividing the total number of job vacancies by the total number employed in the industry

xs secondary confidentiality

Table 5: Job Vacancies by Major Occupational Group, 4th Quarter 2007

Occupational Group	# of Job Vacancies	Job Vacancy Rate*	4th Qtr 2007 Hiring Demand Index**	Hiring Demand Descriptor	Percent Part-time	Percent Temporary/ Seasonal	Percent Requiring an Associate's Degree or higher	Percent Requiring Related Experience	Percent Providing Health Benefits
Total, All Occupations	92,021	3.2%	1.00	-	28%	11%	37%	52%	76%
Management Occupations	6,396	3.5%	2.22	high	3%	1%	98%	66%	98%
Business and Financial Operations	5,853	3.5%	1.44	high	4%	11%	85%	73%	90%
Computer and Mathematical	4,796	4.2%	1.73	high	2%	3%	95%	68%	98%
Architecture and Engineering	3,093	4.2%	2.24	high	1%	2%	94%	74%	98%
Life, Physical, and Social Services	2,612	5.6%	2.23	high	7%	2%	97%	73%	98%
Community and Social Services	2,520	4.3%	1.72	high	20%	3%	82%	56%	92%
Legal	432	1.8%	1.19	avg	9%	13%	96%	51%	98%
Education, Training and Library	2,972	1.4%	0.59	low	36%	15%	85%	64%	66%
Arts, Design, Entertainment, Sports and Media	962	2.0%	0.63	low	24%	14%	67%	50%	79%
Healthcare Practitioner and Technical	8,654	4.4%	2.08	high	34%	7%	78%	61%	82%
Healthcare Support	4,220	4.5%	1.12	avg	44%	2%	12%	50%	70%
Protective Service	1,628	2.3%	1.04	avg	24%	1%	8%	24%	86%
Food Preparation and Serving Related	8,965	3.4%	0.46	low	45%	6%	3%	39%	53%
Building and Grounds Cleaning and Maintenance & Fa	1,703	1.6%	0.49	low	22%	8%	1%	43%	78%
Personal Care and Service	3,032	4.3%	0.88	avg	32%	27%	26%	47%	51%
Sales and Related	13,134	4.0%	0.89	avg	48%	24%	21%	34%	57%
Office and Administrative Support	12,174	2.2%	0.63	low	33%	17%	20%	44%	71%
Farming, Fishing, and Forestry Occ	19	0.7%	0.19	low	32%	42%	6%	44%	53%
Construction and Extraction	880	0.8%	0.19	low	3%	10%	10%	43%	97%
Installation, Maintenance, and Repair	2,045	2.0%	0.72	low	7%	2%	5%	71%	93%
Production	2,354	1.3%	0.47	low	12%	2%	4%	50%	84%
Transportation and Material Moving	3,577	2.2%	0.52	low	41%	22%	0%	30%	59%

*Calculated by dividing the total number of job vacancies by the number employed in the occupation

**Calculated from job vacancy rates and US turnover rates obtained from the Current Population Survey

Hiring Demand index calculated as follows: (Job Vacancy Rate/Turnover Rate)/(Total Job Vacancy Rate/Total Turnover Rate)

The index value for all jobs is 1.0 High=above 1.2. average=between 0.8 and 1.2.Low=below 0.8.

Table 6: Number of Job Vacancies by Occupation, 4th Quarter 2006 vs. 4th Quarter 2007

Occupational Group	4th Quarter 2006			4th Quarter 2007			Net Change	Percent Change
	# of Job Vacancies	Job Vacancy Rate*	% Distribution	# of Job Vacancies	Job Vacancy Rate*	% Distribution		
Total, all Job Vacancies	89,620	3.1%	100.0%	92,021	3.2%	100.0%	2,401	2.7%
Management	5,758	3.1%	6.4%	6,396	3.5%	7.0%	638	11.1%
Business and Financial Operations	5,593	3.3%	6.2%	5,853	3.5%	6.4%	260	4.6%
Computer and Mathematical	4,020	3.5%	4.5%	4,796	4.2%	5.2%	776	19.3%
Architecture and Engineering	2,521	3.4%	2.8%	3,093	4.2%	3.4%	572	22.7%
Life, Physical, and Social Services	1,964	4.2%	2.2%	2,612	5.6%	2.8%	648	33.0%
Community and Social Services	1,819	3.1%	2.0%	2,520	4.3%	2.7%	701	38.5%
Legal	194	0.8%	0.2%	432	1.8%	0.5%	238	122.7%
Education, Training and Library	3,003	1.4%	3.4%	2,972	1.4%	3.2%	-31	-1.0%
Arts, Design, Entertainment, Sports, and Media Occ	715	1.5%	0.8%	962	2.0%	1.0%	247	34.5%
Healthcare Practitioner and Technical	7,886	4.0%	8.8%	8,654	4.4%	9.4%	768	9.7%
Healthcare Support	4,474	4.7%	5.0%	4,220	4.5%	4.6%	-254	-5.7%
Protective Service	1,181	1.7%	1.3%	1,628	2.3%	1.8%	447	37.8%
Food Preparation and Serving Related	7,435	2.8%	8.3%	8,965	3.4%	9.7%	1,530	20.6%
Building and Grounds Cleaning and Maintenance & Farming	833	0.8%	0.9%	1,703	1.6%	1.9%	870	104.4%
Personal Care and Service	2,813	4.0%	3.1%	3,032	4.3%	3.3%	219	7.8%
Sales and Related	16,366	5.0%	18.3%	13,134	4.0%	14.3%	-3,232	-19.7%
Office and Administrative Support	13,053	2.4%	14.6%	12,174	2.2%	13.2%	-879	-6.7%
Construction and Extraction	1,303	1.1%	1.5%	880	0.8%	1.0%	-423	-32.5%
Installation, Maintenance, and Repair	2,062	2.0%	2.3%	2,045	2.0%	2.2%	-17	-0.8%
Production	2,122	1.2%	2.4%	2,354	1.3%	2.6%	232	10.9%
Transportation and Material Moving	4,505	2.7%	5.0%	3,577	2.2%	3.9%	-928	-20.6%

*Calculated by dividing the total number of job vacancies by the number employed in the occupation

Table 7a: Occupations accounting for 54 Percent of all Job Vacancies, 4th Quarter 2007

SOC_title	# of Job Vacancies	Job Vacancy Rate	Median Hourly_Wage Offered
Retail Salespersons	5,303	4.9%	\$8.00
Registered Nurses	3,786	5.0%	\$25.00
Cashiers	3,240	4.3%	\$8.00
Waiters and Waitresses	2,239	4.2%	\$8.00
Nursing Aides, Orderlies, & Attend	2,018	5.0%	\$10.00
Customer Service Representatives	1,473	2.8%	\$13.00
Stock Clerks and Order Fillers	1,425	3.7%	\$8.00
Exec Secretaries & Admin Assistants	1,423	3.1%	\$12.00
Accountants and Auditors	1,397	4.4%	\$21.63
Combined Fd Prep and Serving Workrs	1,391	2.7%	\$7.50
Tellers	1,199	7.8%	\$10.00
Comp Software Engineers, Applicatns	1,128	4.9%	\$50.48
First-Line Sup/Mgr of Retail Sales	952	3.7%	\$12.00
Financial Analysts	885	8.8%	\$31.25
Cooks, Restaurant	883	5.2%	\$11.00
Marketing Managers	853	12.9%	\$38.46
First-Line Sup/Mgr of Fd Prep & Ser	852	5.3%	\$16.00
Computer Systems Analysts	844	6.2%	\$40.00
Sales Managers	820	8.3%	\$26.44
Management Analysts	807	4.2%	\$19.23
Receptionists & Information Clerks	784	3.1%	\$12.02
Financial Managers	752	4.0%	\$40.00
Security Guards	743	3.5%	\$10.00
Licensed Pract & Licensed Voc Nurse	721	4.3%	\$19.00
Bookkeepng, Accountng, & Aud Clerks	711	1.5%	\$15.00
Teacher Assistants	703	2.1%	\$9.62
Comp Software Enginrs, Systems Soft	697	3.4%	\$38.46
Food Preparation Workers	696	2.8%	\$8.00
Medical & Health Services Managers	685	9.2%	\$33.65
Sales Rep, Wholes & Man, Ex Tech/Sc	658	2.1%	\$20.00
Social and Human Service Assistants	650	4.2%	\$12.02
Laborers & Frght, Stock, & Mat Move	648	1.6%	\$9.50
Market Research Analysts	638	7.4%	\$31.25
AO Office & Admin Support Wkr	631	n/a	\$16.83
Preschool Teachers, Ex Special Ed	630	4.6%	\$10.00
Sales Rep, Wholes & Man, Tech & Sci	617	3.3%	\$21.63
Medical Scientists, Ex Epidemiolog	610	10.3%	\$24.04
Counter Attendnt, Cafe, Fd, Coffee	607	3.1%	\$7.50
Computer and Info Systems Managers	599	5.9%	\$48.08
Electrical Engineers	591	9.6%	\$37.50
First-Line Sup/Mgr of Office & Admi	555	1.7%	\$19.23
Medical Secretaries	551	3.0%	\$14.00
Home Health Aides	544	3.2%	\$10.00
Child Care Workers	503	4.8%	\$10.00
Industrial Engineers	503	8.1%	\$33.65

Table 7b: Occupations with the highest Job Vacancy Rates, 4th Quarter 2007

Occupation	# of Job Vacancies	Job Vacancy Rate
Amusement and Recreation Attendants	532	17.5
Security & Fire Alarm System Instal	174	16.3
Veterinry Assist & Lab Anmal Care	295	16.1
Physicists	82	16.1
Couriers and Messengers	322	13.9
Marketing Managers	853	12.9
Pest Control Workers	111	12.2
Parking Lot Attendants	365	11.3
Massage Therapists	85	11.2
Biochemists and Biophysicists	205	10.8
Substnce Abuse & Behavral Disor Cou	162	10.7
Medical Scientists, Ex Epidemiolog	610	10.3
Physician Assistants	201	9.8
Electrical Engineers	591	9.6
Medical & Public Health Social Work	458	9.3
Medical & Health Services Managers	685	9.2
Chemical Engineers	136	8.9
Financial Analysts	885	8.8
Veterinarians	105	8.6
Sales Managers	820	8.3
Cardiovascular Technlgists & Tech	78	8.2
Biomedical Engineers	116	8.1
Industrial Engineers	503	8.1
Physical Therapists	484	8.0

Table 8: 4th Quarter 2007 Job Vacancies by Region and Occupation

Occupational Group	Massachusetts		Berkshire		Cape & Islands		Central		Greater Boston		Northeast		Pioneer Valley		Southeast	
	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate
Total, all Occupations	92,021	3.2%	2,276	3.8%	2,859	2.7%	7,770	2.8%	49,692	3.1%	11,827	2.7%	7,004	2.5%	10,593	2.7%
Management Occupations	6,396	3.5%	51	1.8%	81	1.8%	411	3.0%	4,428	4.1%	765	3.1%	303	2.6%	357	1.9%
Business and Financial Operations	5,853	3.5%	23	1.2%	37	1.4%	301	3.3%	4,081	3.6%	841	4.4%	297	2.8%	273	2.2%
Computer and Mathematical	4,796	4.2%	25	2.9%	40	4.3%	131	3.7%	3,739	4.7%	615	3.3%	100	2.4%	146	2.6%
Architecture and Engineering	3,093	4.2%	51	6.4%	37	2.9%	185	4.6%	2,094	4.8%	473	3.1%	154	4.5%	99	1.9%
Life, Physical, and Social Services	2,612	5.6%	28	6.5%	96	7.2%	79	2.1%	2,001	6.4%	271	5.2%	47	2.4%	90	3.4%
Community and Social Services	2,520	4.3%	25	2.0%	102	5.3%	265	3.9%	1,293	4.9%	273	3.5%	221	3.1%	341	4.8%
Legal	432	1.8%	*	0.0%	*	0.0%	*	0.6%	364	2.1%	*	0.2%	*	0.1%	55	4.6%
Education, Training and Library	2,972	1.4%	100	2.0%	44	0.6%	207	1.0%	1,567	1.6%	312	1.1%	431	1.6%	311	1.2%
Arts, Design, Entertainment, Sports and Media	962	2.0%	xs	5.8%	*	0.5%	34	1.4%	531	1.8%	150	2.7%	62	1.7%	143	3.9%
Healthcare Practitioner and Technical	8,654	4.4%	171	4.5%	289	4.6%	1,089	5.8%	4,280	4.1%	1,045	4.4%	860	4.8%	920	4.1%
Healthcare Support	4,220	4.5%	140	6.9%	112	3.0%	311	3.3%	1,824	4.4%	741	5.6%	493	4.9%	599	4.2%
Protective Service	1,628	2.3%	*	4.4%	*	0.1%	77	1.3%	1,078	2.9%	174	2.0%	80	1.2%	180	2.2%
Food Preparation and Serving Related	8,965	3.4%	286	4.5%	332	2.4%	1,021	4.3%	4,347	3.7%	931	2.4%	959	3.9%	1,089	3.0%
Building and Grounds Cleaning and Maintenance	1,703	1.6%	57	2.2%	224	3.9%	89	1.1%	851	1.5%	174	1.4%	85	0.9%	223	2.0%
Personal Care and Service	3,032	4.3%	*	11.6%	158	5.5%	*	4.6%	1,307	3.8%	469	5.3%	185	2.6%	352	3.9%
Sales and Related	13,134	4.0%	296	4.2%	649	4.4%	1,035	3.8%	7,028	4.4%	1,222	2.9%	994	3.5%	1,910	4.1%
Office and Administrative Support	12,174	2.2%	266	2.7%	249	1.4%	901	2.0%	6,035	2.1%	2,222	3.0%	752	1.5%	1,749	2.7%
Farming, Fishing, and Forestry Occ	19	0.7%	*	n/a	*	n/a	*	n/a	*	n/a	*	n/a	*	n/a	*	n/a
Construction and Extraction	880	0.8%	40	1.3%	76	1.4%	61	0.6%	488	1.0%	32	0.2%	123	1.3%	60	0.3%
Installation, Maintenance, and Repair	2,045	2.0%	25	1.3%	108	2.7%	419	4.3%	619	1.4%	287	2.0%	218	2.1%	369	2.6%
Production	2,354	1.3%	113	2.7%	74	3.5%	303	1.3%	651	1.2%	498	1.4%	304	1.3%	411	1.3%
Transportation and Material Moving	3,577	2.2%	211	9.1%	138	2.5%	577	2.9%	1,079	1.6%	322	1.4%	334	1.8%	916	3.2%

Table 10: Job Vacancies by Region, 4th Quarter 2006 vs. 4th Quarter 2007

Region	4th Quarter 2006		4th Quarter 2007		Net Change	Percent Change
	# of Job Vacancies	Job Vacancy Rate	# of Job Vacancies	Job Vacancy Rate		
Berkshire	2,455	4.4%	2,276	4.1%	-179	-7.3%
Cape and Islands	2,749	3.1%	2,859	3.3%	110	4.0%
Central	7,863	3.2%	7,770	3.1%	-93	-1.2%
Greater Boston	45,909	3.2%	49,692	3.4%	3,783	8.2%
Northeast	11,388	2.9%	11,827	3.1%	439	3.9%
Pioneer Valley	7,814	3.0%	7,004	2.7%	-810	-10.4%
Southeast	11,442	3.1%	10,593	2.9%	-849	-7.4%
Massachusetts	89,620	3.1%	92,021	3.2%	2,401	2.7%

Table 11: Industry Hiring Expectations

NAICS	Industry Name	Increase	Same	Decrease	Not Sure	Difference*
11	Agriculture	9%	68%	7%	16%	2%
21	Mining	16%	43%	29%	12%	-14%
22	Utilities	13%	68%	2%	17%	10%
23	Construction	25%	49%	14%	13%	11%
31	Manufacturing	33%	48%	7%	12%	26%
42	Wholesale Trade	21%	59%	10%	10%	12%
44	Retail Trade	33%	48%	9%	9%	24%
48	Transportation & Warehousing	25%	54%	8%	13%	18%
51	Information	33%	49%	8%	9%	25%
52	Finance & Insurance	30%	53%	4%	13%	25%
53	Real Estate, Rental & Leasing	28%	53%	10%	9%	17%
54	Professional & Technical Services	45%	43%	4%	8%	41%
55	Management	30%	48%	10%	12%	20%
56	Administrative & Support & Waste Services	32%	42%	12%	14%	20%
61	Educational Services	22%	65%	4%	9%	18%
62	Healthcare	31%	57%	3%	9%	28%
71	Arts, Entertainment & Recreation	26%	51%	15%	8%	11%
72	Accommodation & Food Services	32%	53%	8%	7%	23%
81	Other Services	21%	58%	11%	10%	11%
92	Public Administration	23%	63%	3%	11%	20%
99	Total, All Industries	30%	53%	8%	10%	22%

*Percent of employers projecting an increase minus the percent projecting a decrease

Table 12: Regional Hiring Expectations

Region	Increase	Same	Decrease	Unsure	Difference*
Berkshire	25%	56%	9%	11%	16%
Cape and Islands	25%	53%	15%	7%	10%
Central	27%	55%	8%	9%	19%
Greater Boston	33%	50%	6%	11%	26%
Northeast	29%	55%	6%	9%	23%
Pioneer Valley	27%	54%	7%	12%	20%
Southeast	29%	53%	8%	10%	20%
Total, All Regions	30%	53%	8%	10%	22%

Table 13: Hiring Expectations by Size of Firm

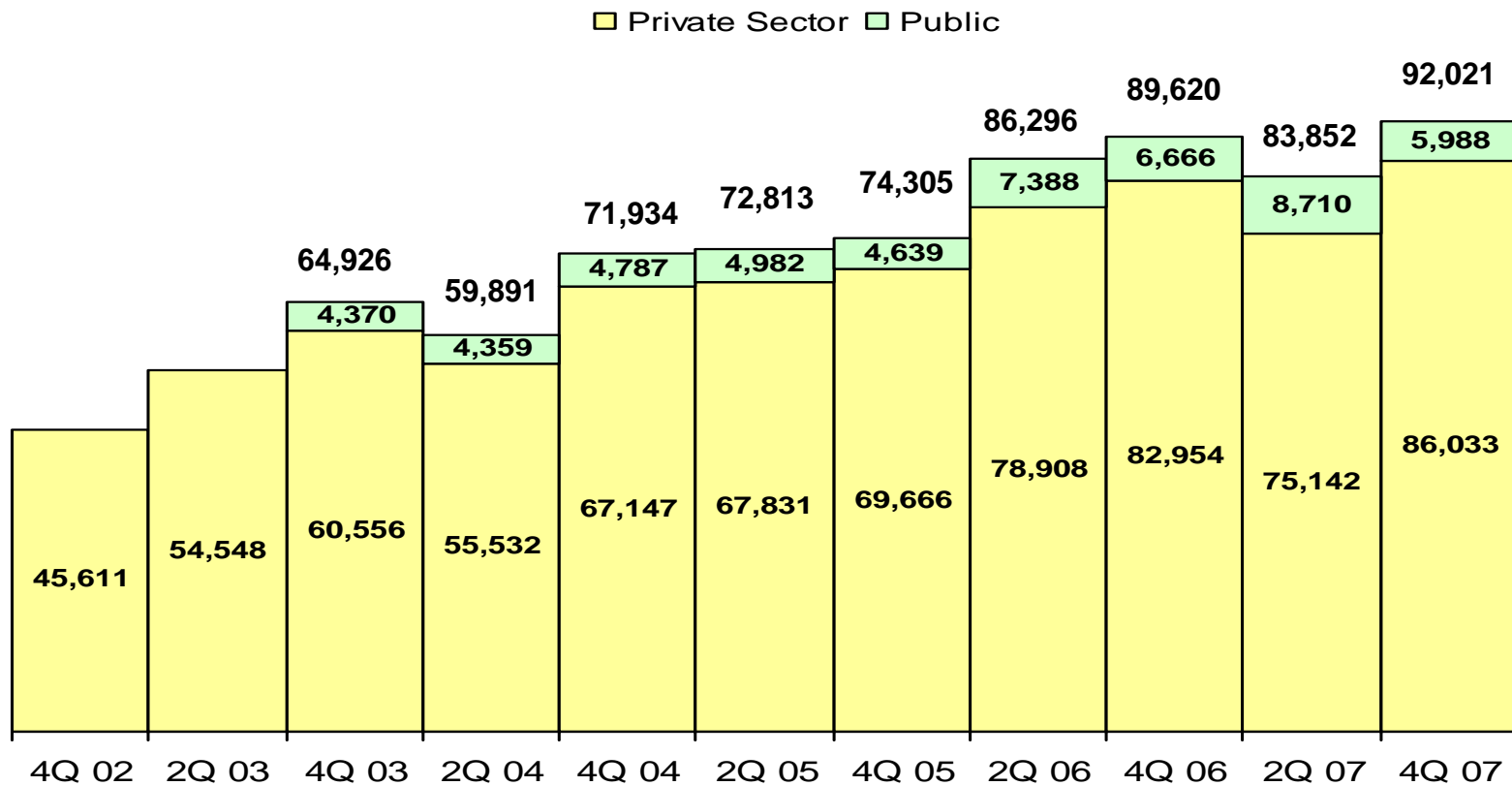
Size of firm	Increase	Same	Decrease	Unsure	Difference*
Small (5-49 Employees)	23%	59%	9%	9%	14%
Medium (50- 249 Employees)	35%	47%	7%	10%	28%
Large (250 or more Employees)	39%	41%	5%	13%	35%
Total, all Firms	30%	53%	8%	10%	22%

Table 14: Percent of Employers Satisfied with their New Hires' Basic Skills

Industry Name	Oral Communication	Written Communication	Teamwork	Basic Math	Problem Solving	Information Technology	Professional/ Technical Skills	Leadership	Average Overall
Agriculture	85%	45%	90%	60%	70%	40%	60%	45%	62%
Mining	50%	35%	75%	53%	50%	29%	39%	18%	44%
Utilities	90%	88%	96%	94%	90%	86%	90%	75%	89%
Construction	82%	64%	85%	71%	68%	51%	74%	45%	68%
Manufacturing	83%	68%	88%	79%	70%	50%	65%	46%	69%
Wholesale Trade	87%	74%	89%	80%	77%	61%	71%	54%	74%
Retail Trade	91%	71%	90%	77%	74%	56%	63%	52%	72%
Transportation & Warehousing	91%	74%	83%	69%	68%	53%	67%	53%	70%
Information	96%	91%	95%	81%	88%	85%	87%	74%	87%
Finance & Insurance	93%	87%	95%	89%	90%	81%	83%	62%	85%
Real Estate, Rental & Leasing	86%	71%	88%	79%	71%	57%	62%	45%	70%
Professional & Technical Services	95%	91%	94%	85%	90%	87%	93%	74%	89%
Management	89%	80%	94%	87%	82%	72%	77%	63%	81%
Administrative & Support & Waste Services	80%	66%	88%	52%	64%	40%	55%	46%	61%
Educational Services	98%	94%	93%	88%	93%	88%	94%	82%	91%
Healthcare	92%	85%	89%	74%	81%	62%	82%	66%	79%
Arts, Entertainment & Recreation	86%	63%	88%	66%	70%	42%	59%	52%	66%
Accommodation & Food Services	88%	60%	87%	69%	60%	39%	47%	43%	62%
Other Services	85%	68%	86%	67%	67%	52%	67%	51%	68%
Public Administration	94%	91%	94%	82%	87%	78%	88%	78%	86%
Total, All Industries	89%	77%	90%	77%	77%	62%	73%	59%	75%

Figure 1:

The total volume of private sector job postings rose 3.7% from the 4th quarter of 2006*



* Not seasonally adjusted

Figure 2:

Demand for Professional/Scientific/Business & Information Services generated the biggest increase in job vacancies over the year.

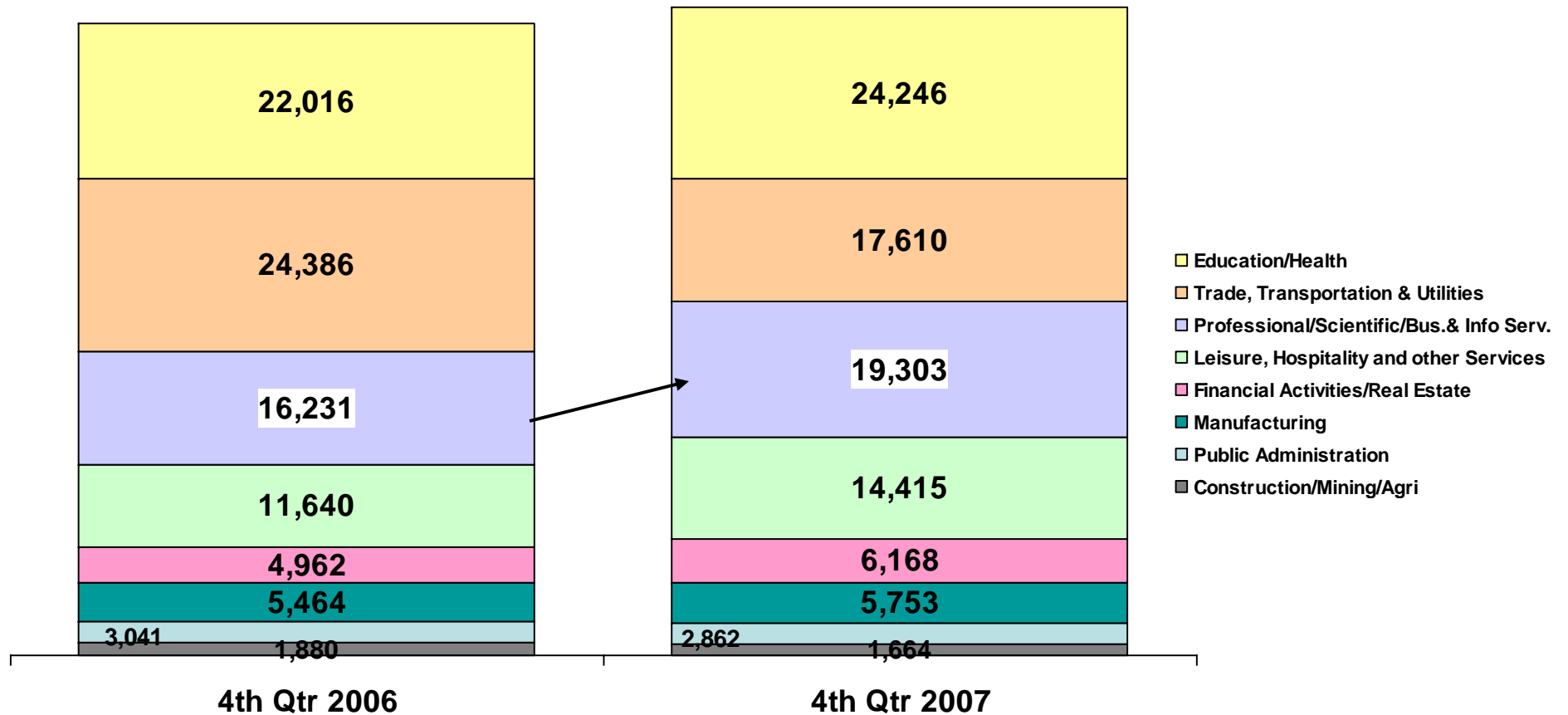


Figure 3:

The relative proportion of job postings for management, professional and technical workers and service workers rose over the year.

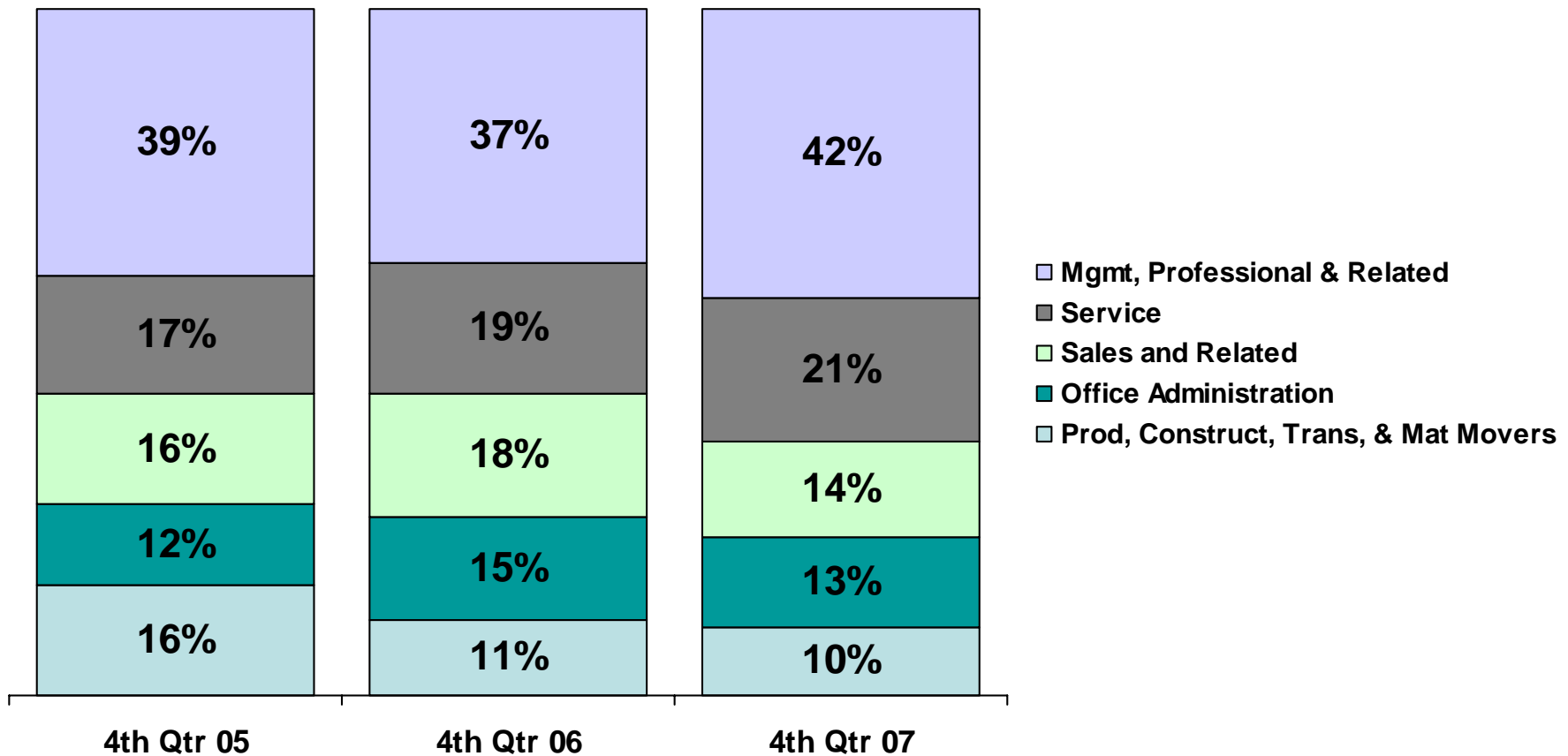
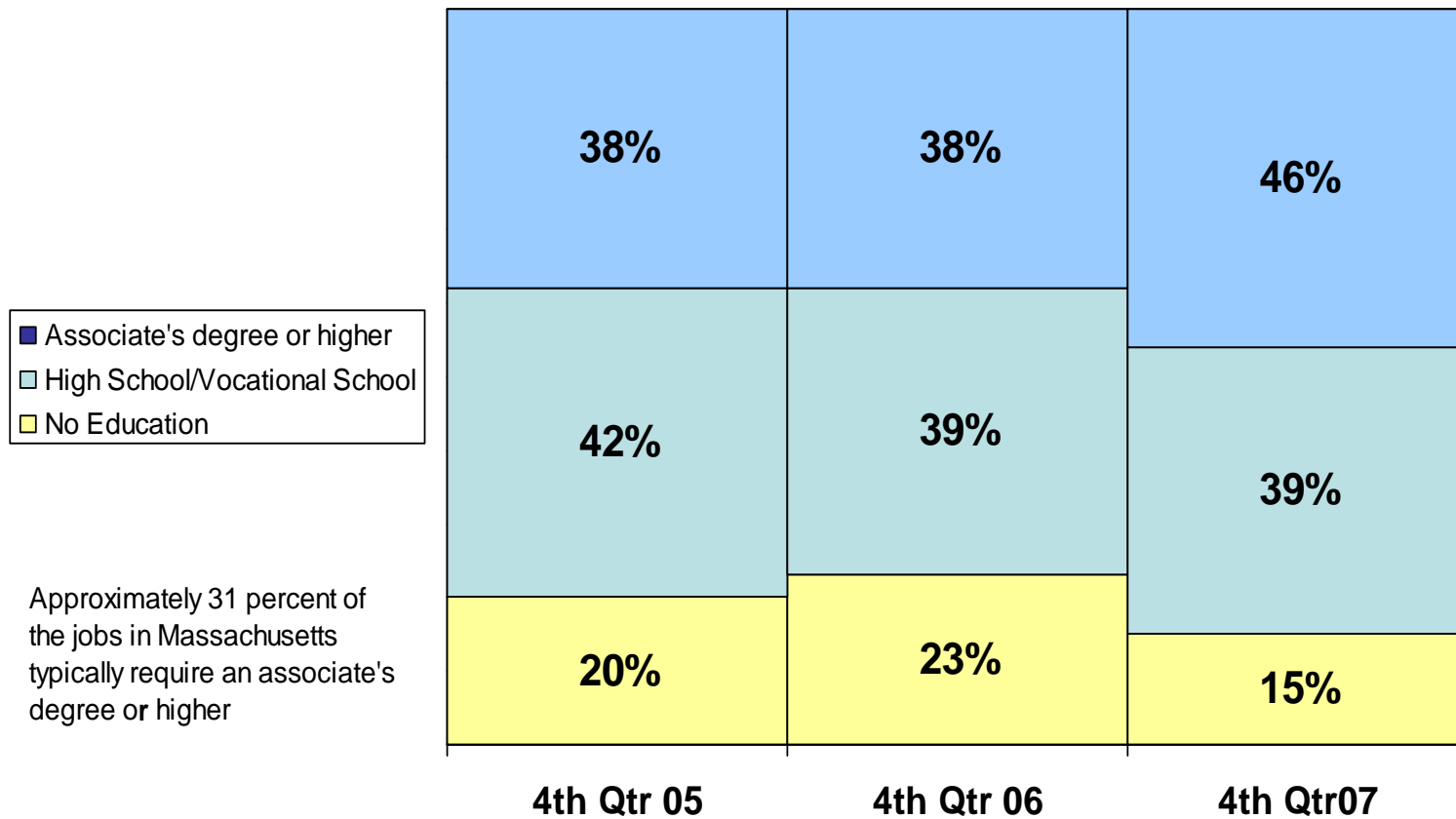


Figure 4

The proportion of job vacancies that required an associate's degree or higher rose 8 percentage points from a year ago.



Approximately 31 percent of the jobs in Massachusetts typically require an associate's degree or higher

Figure 5: Supply vs. Demand

During the 4th quarter of 2007, bachelor's degree holders still encountered better job prospects than job seekers with fewer years of education.

