



Greater Lowell and Merrimack Valley
in Demand: A Massachusetts
Regional Workforce Strategies
Initiative

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June 26, 2008



Purpose of Presentation

1. Provide a review of labor market development in the Greater Lowell and Merrimack Valley Region to help local leaders think through education, training and development strategies
2. Prepared an analysis of Greater Lowell and Merrimack Valley Region around six major topics:
 - **Labor demand context**
 - Analysis of payroll employment structure and trends; understanding overall demand trends; industry structure of employment
 - Analysis of occupational and educational implications of payroll employment growth
 - Analysis of unmet labor market needs – identification of potential areas of skill shortages



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- **Labor Supply Context**
 - Analysis of trends in size and composition of population and labor force in the Greater Lowell and Merrimack Valley Region
 - Post-secondary institutional source of labor supply to occupations in the Greater Lowell and Merrimack Valley Region
 - Career and technical education institutional labor supply in the Greater Lowell and Merrimack Valley Region



Change in the Total Population of the Greater Lowell Area by Age, 2000 and 2005-06

Age Group	2000	2005-06	Absolute Change	Relative Change
Total	284,690	279,503	-5,187	-1.8%
Under 16	72,117	64,982	-7,135	-9.9%
16-24	29,070	27,645	-1,425	-4.9%
25-34	41,519	34,842	-6,677	-16.1%
35-44	53,458	48,393	-5,065	-9.5%
45-54	36,854	43,261	6,407	17.4%
55-64	24,260	30,758	6,498	26.8%
65+	27,412	29,623	2,211	8.1%
Under 45	196,164	175,862	-20,302	-10.3%
45 and older	88,526	103,642	15,116	17.1%
55 and older	51,672	60,381	8,709	16.9%



Change in the Total Population of the Merrimack Valley Area by Age, 2000 and 2005-06

	2000	2005-06	Absolute Change	Relative Change
Total	259,446	271,266	11,820	4.6%
Under 16	67,654	64,202	-3,452	-5.1%
16-24	26,302	34,077	7,775	29.6%
25-34	34,378	33,200	-1,178	-3.4%
35-44	46,453	44,254	-2,199	-4.7%
45-54	35,011	41,982	6,971	19.9%
55-64	21,623	26,319	4,696	21.7%
65+	28,025	27,234	-791	-2.8%
Under 45	174,787	175,733	946	0.5%
45 and older	84,659	95,535	10,876	12.8%
55 and older	49,648	53,553	3,905	7.9%

Percentage Distribution of the Civilian Labor Force by Gender, Nativity Status, and Race-Ethnicity, 2005-06

	Greater Lowell	Merrimack Valley	Massachusetts	New England	U.S.
Total	151,112	139,573	3,369,817	7,521,725	148,191,267
<u>Gender</u>					
Male	52.1%	52.2%	52.0%	52.2%	53.5%
Female	47.9%	47.8%	48.0%	47.8%	46.5%
<u>Nativity Status</u>					
U.S. born	81.5%	74.5%	81.3%	85.0%	84.1%
Foreign born	18.5%	25.5%	18.7%	15.0%	15.9%
Foreign born entered since 2000	4.0%	3.5%	4.2%	3.3%	3.3%
<u>Race-Ethnicity</u>					
White, non-Hispanic	83.2%	71.8%	81.2%	83.4%	68.8%
Black, non-Hispanic	2.2%	--	5.1%	4.9%	11.1%
Hispanic	4.3%	21.4%	7.0%	6.6%	13.6%
Other, non-Hispanic	10.3%	4.9%	6.6%	5.1%	6.4%



Percentage Distribution of the Civilian Labor Force by Age, 2005-06

Age	Greater Lowell	Merrimack Valley	Mass.	New England	U.S.
16-24	11.5%	14.8%	13.3%	13.5%	15.0%
25-34	20.3%	19.0%	20.6%	19.2%	21.5%
35-44	26.5%	25.9%	24.6%	24.5%	24.1%
45-54	24.9%	24.6%	23.7%	24.5%	23.1%
55-64	13.6%	12.4%	14.0%	14.4%	12.9%
65+	3.1%	3.3%	3.8%	3.9%	3.5%
Under 35	31.8%	33.8%	33.9%	32.7%	36.5%
55 and older	16.7%	15.7%	17.8%	18.3%	16.4%



Percentage Distribution of the Civilian Labor Force by Educational Attainment, 2005-06

Educational Attainment	Greater Lowell	Merrimack Valley	MA	New England	U.S.
High school student	2.4%	2.8%	2.5%	2.7%	2.4%
High school dropout	6.6%	8.1%	7.2%	7.3%	10.6%
High school graduate	28.4%	27.9%	25.9%	27.9%	28.6%
Some college, no degree	18.2%	17.8%	17.3%	18.5%	22.0%
Associate's degree	9.3%	8.0%	8.1%	8.4%	8.1%
Bachelor's degree	21.3%	21.0%	22.8%	21.3%	18.2%
Master's degree or more	13.9%	14.4%	16.1%	14.0%	10.0%
With any postsecondary education	62.7%	61.2%	64.4%	62.1%	58.4%
Bachelor's or higher	35.2%	35.4%	39.0%	35.3%	28.3%

Trends in Total Non Agricultural Wage and Salary
Employment Levels in Massachusetts, New England and the
Nation, 4th Quarter, 2003 to First Quarter 2007
(Seasonally Adjusted, in 000s)

	4th Quarter 2003	1st Quarter 2007	Absolute Change	Relative Change
Connecticut	1,644.0	1,690.7	46.7	2.8%
Maine	610.0	617.1	7.2	1.2%
Massachusetts	3,185.0	3,270.4	85.4	2.7%
New Hampshire	622.0	645.7	23.7	3.8%
Rhode Island	486.3	495.6	9.3	1.9%
Vermont	300.9	307.6	6.7	2.2%
New England	6,848.1	7,027.2	179.1	2.6%
USA	130,181.3	137,183.7	7,002.3	5.4%

Trends in Total Non Agricultural Wage and Salary
Employment Levels in Massachusetts, New England and
the Nation, 4th Quarter, 2007 to First Quarter 2008
(Seasonally Adjusted, in 000s)

	4th Quarter 2007	1st Quarter 2008	Absolute Change	Relative Change
Connecticut	1,704.2	1,702.0	-2.2	-0.1%
Maine	618.9	617.9	-1.0	-0.2%
Massachusetts	3,285.3	3,290.4	5.1	0.2%
New Hampshire	653.7	654.1	0.4	0.1%
Rhode Island	490.4	487.2	-3.2	-0.6%
Vermont	308.3	308.0	-0.3	-0.1%
New England	7,060.8	7,059.7	-1.1	0.0%
USA	138,030.7	137,924.7	-106.0	-0.1%

Trends in Total Non Agricultural Wage and Salary
Employment Levels by Major Industry Sector in Massachusetts, 4th
Quarter, 2003 to First Quarter 2007 (Seasonally Adjusted, in 000s)

	4th Quarter 2003	1st Quarter 2007	Absolute Change	Share of Change
All Industries	3,185.0	3,270.4	85.4	2.7%
Construction	136.3	138.4	2.0	1.5%
Manufacturing	316.7	297.6	-19.0	-6.0%
Durable	207.1	196.9	-10.2	-4.9%
Non Durable	109.6	100.7	-8.9	-8.1%
Trade, Transportation, and Utilities	573.4	570.9	-2.5	-0.4%
Wholesale Trade	134.8	137.9	3.1	2.3%
Retail Trade	354.4	348.8	-5.6	-1.6%
Transportation and Utilities	84.2	84.2	0.0	0.0%
Information	89.1	87.4	-1.7	-1.9%
Financial Activities	221.5	225.8	4.3	2.0%
Professional and Business Services	442.0	477.9	35.9	8.1%
Education and Health Services	577.6	618.0	40.4	7.0%
Leisure and Hospitality	289.3	302.7	13.4	4.6%
Other Services	116.8	119.2	2.4	2.0%
Government	420.3	431.2	10.9	2.6%

Trends in Total Non Agricultural Wage and Salary Employment Levels by Major Industry Sector in Massachusetts, Fourth Quarter, 2007 to First Quarter 2008 (Seasonally Adjusted, in 000s)

	4th Quarter 2007	1st Quarter 2008	Absolute Change	Relative Change
All Industries	3285.3	3290.4	5.1	0.2%
Construction	137.4	135.5	-1.9	-1.4%
Manufacturing	293.8	292.7	-1.1	-0.4%
Durable	194.5	193.9	-0.6	-0.3%
Non Durable	99.3	98.8	-0.5	-0.5%
Trade, Transportation, and Utilities	570.6	569.4	-1.3	-0.2%
Wholesale Trade	138.7	139.2	0.5	0.4%
Retail Trade	347.3	345.5	-1.8	-0.5%
Transportation and Utilities	84.6	84.6	0.1	0.1%
Information	89.7	89.7	0.0	0.0%
Financial Activities	224.4	224.1	-0.3	-0.1%
Professional and Business Services	483.7	486.6	2.9	0.6%
Education and Health Services	627.1	632.9	5.7	0.9%
Leisure and Hospitality	302.1	304.3	2.2	0.7%
Other Services	119.2	118.3	-0.9	-0.7%
Government	435.7	435.6	-0.1	0.0%

Industry Employment Trends: Greater Lowell Workforce Area

	2004 Third Quarter	2007 Third Quarter	Absolute Change	Relative Change
Total	111,959	113,982	2,023	1.8%
23 - Construction	7,523	7,039	-484	-6.4%
31-33 - Manufacturing	20,034	18,903	-1,131	-5.6%
DUR - Durable Goods Manufacturing	16,305	15,789	-516	-3.2%
NONDUR - Non-Durable Goods Manufacturing	3,730	3,114	-616	-16.5%
22 - Utilities	262	240	-22	-8.4%
42 - Wholesale Trade	6,627	6,478	-149	-2.2%
44-45 - Retail Trade	9,667	9,538	-129	-1.3%
48-49 - Transportation and Warehousing	4,694	4,958	264	5.6%
51 - Information	5,769	5,833	64	1.1%
52 - Finance and Insurance	2,951	2,878	-73	-2.5%
53 - Real Estate and Rental and Leasing	1,096	993	-103	-9.4%
54 - Professional and Technical Services	7,971	9,853	1,882	23.6%
55 - Management of Companies and Enterprises	1,910	1,997	87	4.6%
56 - Administrative and Waste Services	5,965	4,976	-989	-16.6%
61 - Educational Services	7,168	8,166	998	13.9%
62 - Health Care and Social Assistance	12,472	13,536	1,064	8.5%
71 - Arts, Entertainment, and Recreation	1,653	1,772	119	7.2%
72 - Accommodation and Food Services	8,518	8,397	-121	-1.4%
81 - Other Services, Ex. Public Admin	3,699	4,039	340	9.2%
92 - Public Administration	3,779	4,167	388	10.3%

Industry Employment Trends: Merrimack Valley Workforce Area

	2004 Third Quarter	2007 Third Quarter	Absolute Change	Relative Change
Total, All Industries	126,665	130,386	3,721	2.9%
23 - Construction	6,556	6,772	216	3.3%
31-33 - Manufacturing	25,643	25,576	-67	-0.3%
DUR - Durable Goods Manufacturing	16,646	16,905	259	1.6%
NONDUR - Non-Durable Goods Manufacturing	8,997	8,671	-326	-3.6%
22 - Utilities	470	484	14	3.0%
42 - Wholesale Trade	5,059	4,347	-712	-14.1%
44-45 - Retail Trade	11,502	11,484	-18	-0.2%
48-49 - Transportation and Warehousing	2,064	2,051	-13	-0.6%
51 - Information	3,948	3,466	-482	-12.2%
52 - Finance and Insurance	3,289	3,535	246	7.5%
53 - Real Estate and Rental and Leasing	1,591	1,351	-240	-15.1%
54 - Professional and Technical Services	8,308	9,808	1,500	18.1%
55 - Management of Companies and Enterprises	2,193	1,931	-262	-11.9%
56 - Administrative and Waste Services	6,972	8,294	1,322	19.0%
61 - Educational Services	8,716	9,218	502	5.8%
62 - Health Care and Social Assistance	19,082	19,479	397	2.1%
71 - Arts, Entertainment, and Recreation	2,294	2,525	231	10.1%
72 - Accommodation and Food Services	9,188	9,185	-3	0.0%
81 - Other Services, Ex. Public Admin	4,205	4,958	753	17.9%
92 - Public Administration	5,387	5,747	360	6.7%



Detailed Industry Employment Structure: Greater Lowell Workforce Area

NAICS	Description	2007 III	Percent Distribution
31-33	Manufacturing	18,903	100.00%
323	Printing and Related Support Activities	681	3.60%
332	Fabricated Metal Product Manufacturing	1,429	7.60%
333	Machinery Manufacturing	1,864	9.90%
334	Computer and Electronic Product Mfg	9,013	47.70%
	All Other Manufacturing	5,916	31.30%



Detailed Industry Employment Structure: Greater Lowell Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
44-45	Retail Trade	9,538	100.00%
441	Motor Vehicle and Parts Dealers	1,020	10.70%
444	Building Material & Garden Supply Stores	886	9.30%
445	Food and Beverage Stores	3,389	35.50%
446	Health and Personal Care Stores	853	8.90%
448	Clothing and Clothing Accessories Stores	579	6.10%
452	General Merchandise Stores	870	9.10%
	All Other Retail Trade	1,914	20.10%

Detailed Industry Employment Structure: Greater Lowell Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
54	Professional and Technical Services	9,853	100.00%
5411	Legal Services	508	5.20%
5412	Accounting and Bookkeeping Services	413	4.20%
5413	Architectural and Engineering Services	1,383	14.00%
5415	Computer Systems Design and Rel Services	4,612	46.80%
5416	Management & Technical Consulting Svc	1,155	11.70%
5417	Scientific Research and Development Svc	1,377	14.00%
	All Other Professional and Technical Services	405	4.10%
56	Administrative and Waste Services	4,976	100.00%
5613	Employment Services	1,737	34.90%
5616	Investigation and Security Services	752	15.10%
5617	Services to Buildings and Dwellings	1,485	29.80%
	All Other Administrative and Waste Services	1,002	20.10%

Detailed Industry Employment Structure: Greater Lowell Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
61	Educational Services	8,166	100.00%
6111	Elementary and Secondary Schools	5,648	69.20%
	All Other Educational Services	2,518	30.80%
62	Health Care and Social Assistance	13,536	100.00%
621	Ambulatory Health Care Services	4,056	30.00%
622	Hospitals	4,115	30.40%
623	Nursing and Residential Care Facilities	3,530	26.10%
624	Social Assistance	1,835	13.60%
72	Accommodation and Food Services	8,397	100.00%
721	Accommodation	837	10.00%
722	Food Services and Drinking Places	7,560	90.00%



Detailed Industry Employment Structure: Merrimack Valley Workforce Area

NAICS	Description	2007 III	Percent Distribution
31-33	Manufacturing	25,576	100.0%
311	Food Manufacturing	2,407	9.4%
323	Printing	1,189	4.6%
325	Chemical Manufacturing	1,501	5.9%
332	Fabricated Metal Product Manufacturing	1,961	7.7%
334	Computer and Electronic Product Mfg	5,958	23.3%
335	Electrical Equipment	1,426	5.6%
339	Miscellaneous Manufacturing	1,804	7.1%
	All Other Manufacturing	9,330	36.4%



Detailed Industry Employment Structure: Merrimack Valley Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
44-45	Retail Trade	11,484	100.00%
441	Motor Vehicle and Parts Dealers	1,269	11.10%
444	Building Material & Garden Supply Stores	833	7.30%
445	Food and Beverage Stores	4,407	38.40%
446	Health and Personal Care Stores	1,078	9.40%
448	Clothing and Clothing Accessories Stores	899	7.80%
452	General Merchandise Stores	855	7.40%
	All Other Retail Trade	2,143	18.60%

Detailed Industry Employment Structure: Merrimack Valley Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
54	Professional and Technical Services	9,808	100.00%
5411	Legal Services	1,053	10.70%
5412	Accounting and Bookkeeping Services	468	4.80%
5413	Architectural and Engineering Services	1,037	10.60%
5415	Computer Systems Design and Rel Services	2,490	25.40%
5416	Management and Technical Consulting	828	8.40%
5417	Scientific Research and Development Svc	2,631	26.80%
	All Other Professional and Technical Services	1,301	13.30%
56	Administrative and Waste Services	8,294	100.00%
5613	Employment Services	4,376	52.80%
5617	Services to Buildings and Dwellings	1,344	16.20%
562	Waste Management	1,007	12.10%
	All Other Administrative and Waste Services	1,567	18.90%



Detailed Industry Employment Structure: Merrimack Valley Workforce Area (Cont.)

NAICS	Description	2007 III	Percent Distribution
62	Health Care and Social Assistance	19,479	100.00%
621	Ambulatory Health Care Services	6,911	35.50%
622	Hospitals	4,672	24.00%
623	Nursing and Residential Care Facilities	4,883	25.10%
624	Social Assistance	3,012	15.40%
72	Accommodation and Food Services	9,185	100.00%
721	Accommodation	565	6.20%
722	Food Services and Drinking Places	8,620	93.80%



Occupational Staffing Patterns of Selected Industries in the Greater Lowell Area, 2005-06

Major Occupations	Construction	Manufacturing
Total Workers	9,627	22,982
College labor market & high level sales occupations	17.5%	62.8%
Healthcare practitioner & technical	0.0%	0.6%
Service and low level sales occupations	0.8%	0.9%
Office & administrative support	6.9%	9.6%
High skill blue collar occupations	69.4%	1.7%
Production, transportation & material moving occupations	5.3%	24.4%

Occupational Staffing Patterns of Selected Industries in the Greater Lowell Area, 2005-06 (cont.)

Major Occupations	Prof., Scientific & Tech. Services	Educ. Services	Healthcare & Social Services	Other Services
Total Workers	10,635	10,534	12,557	22,088
College labor market & high level sales occupations	83.6%	76.9%	18.0%	24.8%
Healthcare practitioner & technical	0.4%	2.8%	38.3%	1.2%
Service and low level sales occupations	1.4%	9.4%	26.0%	52.4%
Office & administrative support	12.1%	10.9%	14.6%	10.4%
High skill blue collar occupations	2.4%	0.0%	0.7%	6.7%
Production, transportation & material moving occupations	0.0%	0.0%	2.4%	4.6%

Occupational Staffing Patterns of Selected Industries in the Greater Lowell Area, 2005-06 (cont.)

Major Occupations	Retail Trade	Information	Finance, Ins. & Real Estate
Total Workers	11,204	5,172	6,088
College labor market & high level sales occupations	25.9%	71.0%	68.0%
Healthcare practitioner & technical	1.4%	0.0%	0.0%
Service and low level sales occupations	33.8%	4.0%	10.2%
Office & administrative support	20.9%	13.5%	21.8%
High skill blue collar occupations	4.6%	7.0%	0.0%
Production, transportation & material moving occupations	13.1%	4.5%	0.0%



Occupational Staffing Patterns of Selected Industries in the Merrimack Valley Area, 2005-06

Major Occupations	Construction	Manufacturing
Total Workers	6,734	25,469
College labor market & high level sales occupations	11.5%	43.2%
Healthcare practitioner & technical	0.0%	0.0%
Service and low level sales occupations	0.8%	2.6%
Office & administrative support	3.8%	10.5%
High skill blue collar occupations	80.3%	3.5%
Production, transportation & material moving occupations	3.5%	40.1%

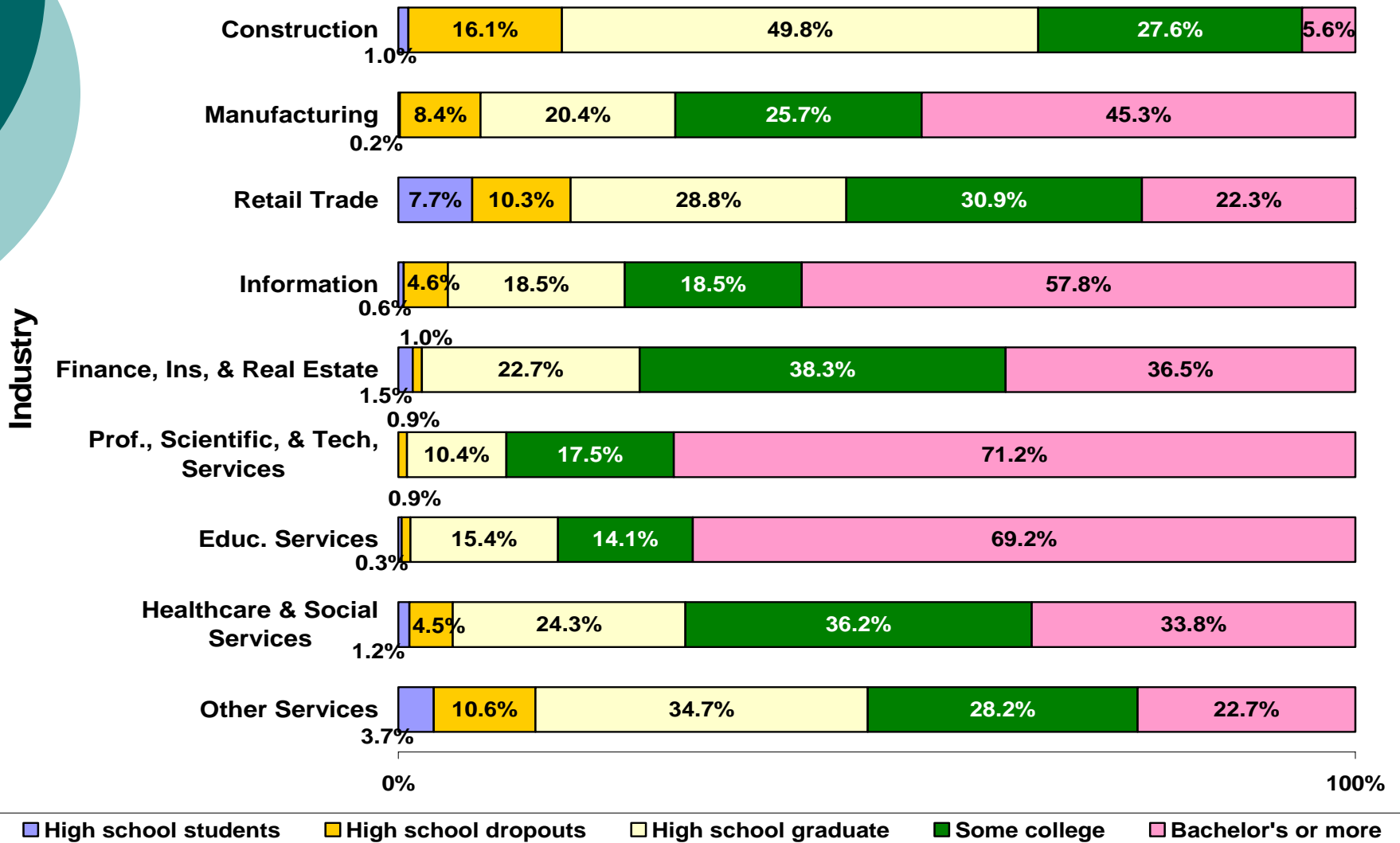
Occupational Staffing Patterns of Selected Industries in the Merrimack Valley Area, 2005-06 (cont.)

Major Occupations	Prof., Scientific & Tech. Services	Educ. Services	Healthcare & Social Services	Other Services
Total Workers	8,680	9,743	16,361	23,075
College labor market & high level sales occupations	81.6%	75.7%	21.3%	26.3%
Healthcare practitioner & technical	2.4%	2.1%	31.7%	2.0%
Service and low level sales occupations	0.3%	13.0%	31.8%	48.9%
Office & administrative support	12.6%	7.7%	13.4%	10.6%
High skill blue collar occupations	1.4%	1.5%	1.0%	3.0%
Production, transportation & material moving occupations	1.7%	0.0%	0.9%	9.2%

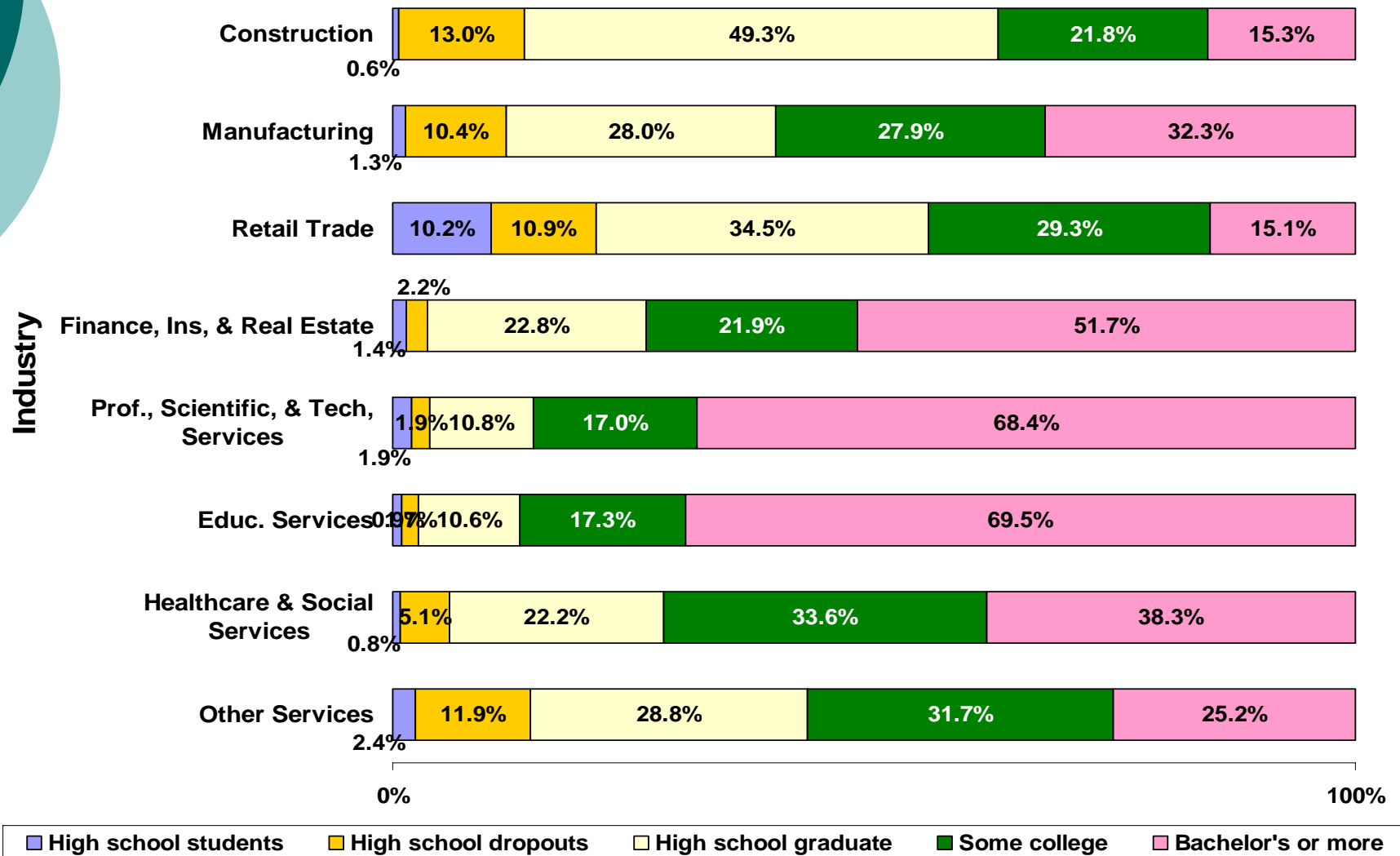
Occupational Staffing Patterns of Selected Industries in the Merrimack Valley Area, 2005-06 (cont.)

Major Occupations	Retail Trade	Information	Finance, Ins. & Real Estate
Total Workers	9,677	SAMPLE TOO SMALL	7,400
College labor market & high level sales occupations	22.5%		67.4%
Healthcare practitioner & technical	1.2%		1.4%
Service and low level sales occupations	34.5%		4.4%
Office & administrative support	16.6%		26.4%
High skill blue collar occupations	5.6%		0.4%
Production, transportation & material moving occupations	19.5%		0.0%

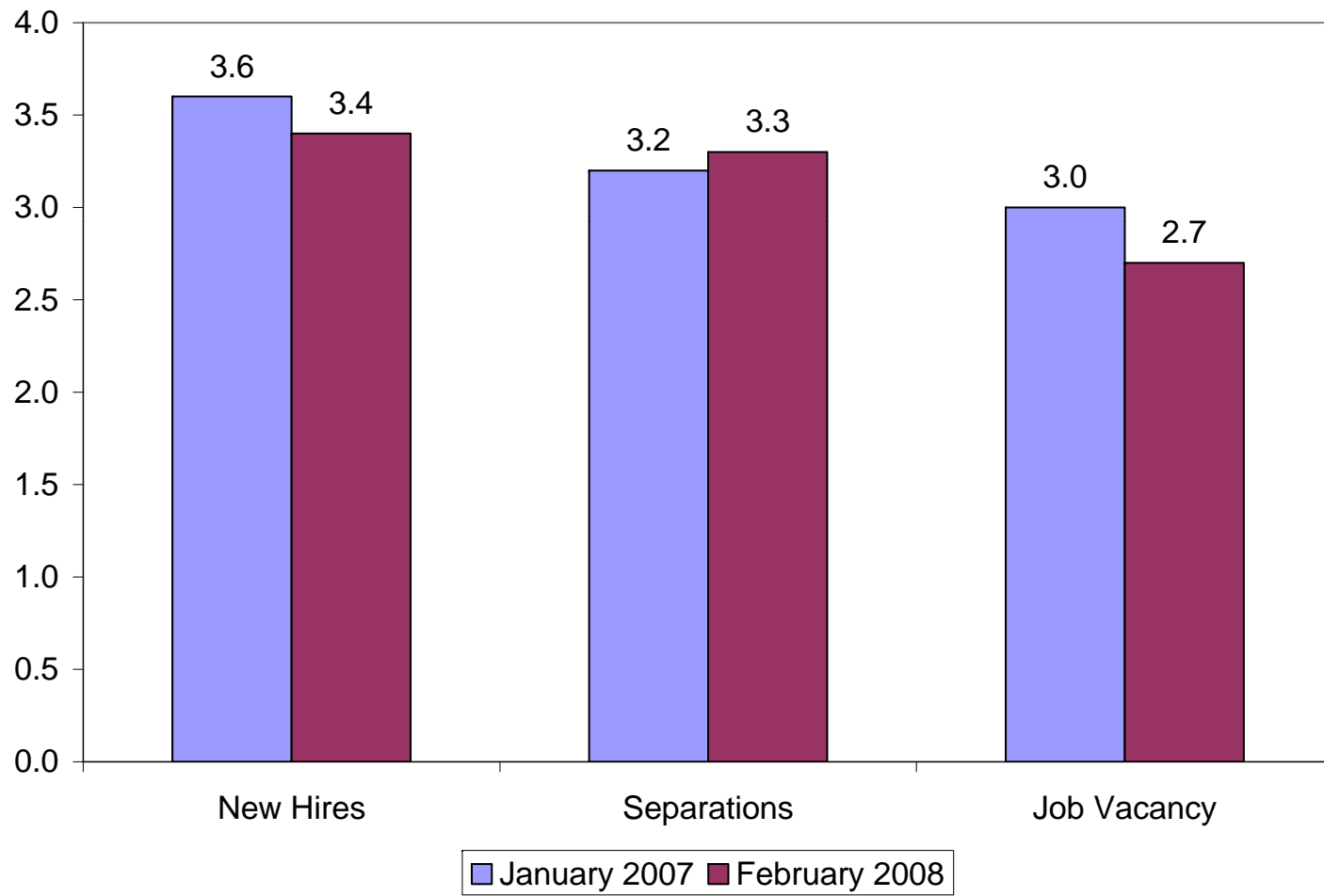
Percentage Distribution by Educational Attainment of Employed Individuals Who Worked in the Greater Lowell Area by Major Industry, 2005-06



Percentage Distribution by Educational Attainment of Employed Individuals Who Worked in the Merrimack Valley Area by Major Industry, 2005-06



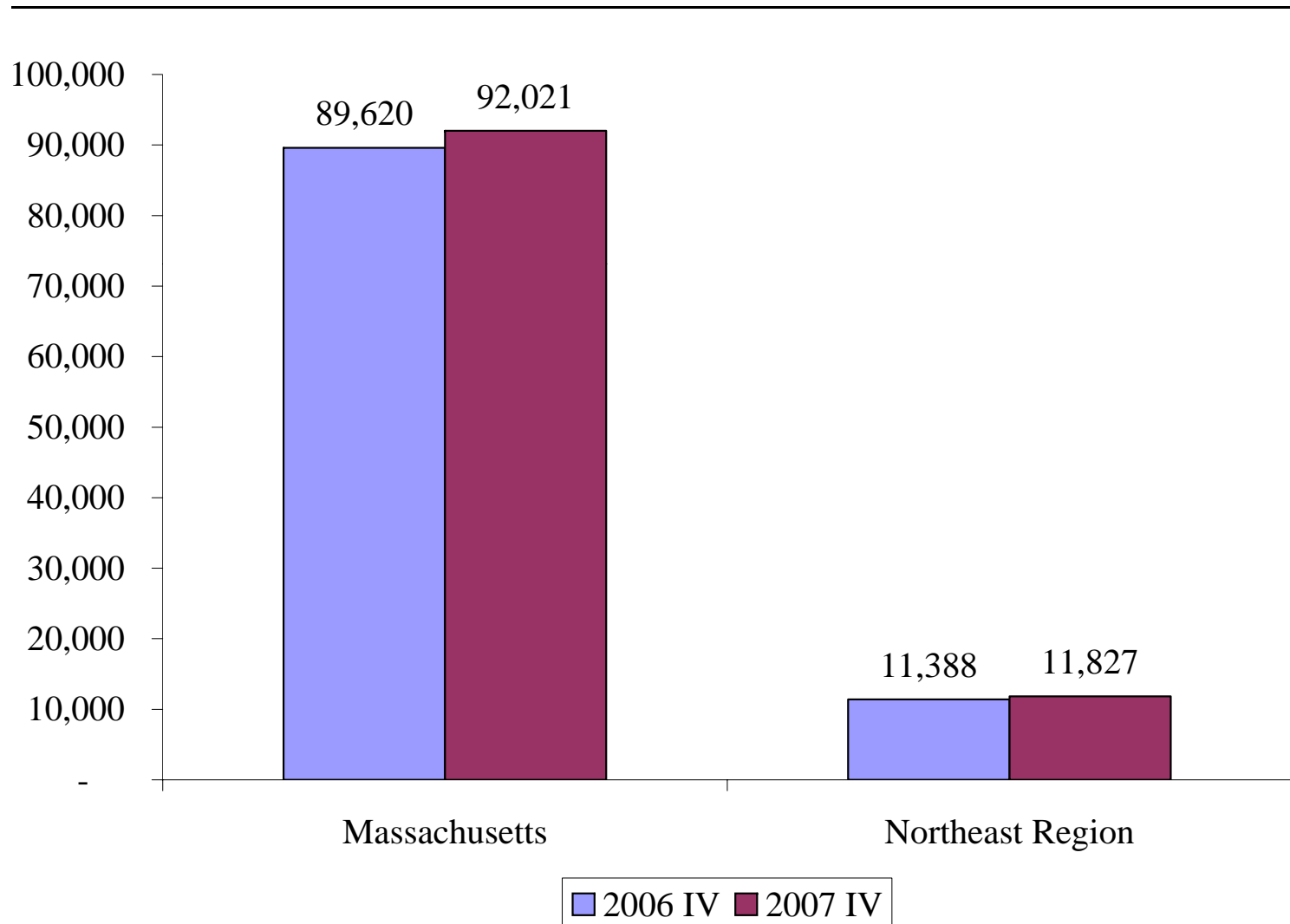
Trends in the New Hires Rate, Separation Rate and Job Vacancy Rate in the United States, January 2007 to February 2008 (Seasonally Adjusted)



Number and Rates of Wage and Salary
New Hires, Separations and Job Vacancies in the
United States, February 2008, by Industry Sector
(Seasonally Adjusted, Numbers in 000s)

		New Hires	Separations	Job Vacancies
Total	Number	4638	4485	3820
	Rate	3.4	3.3	2.7
Construction	Number	358	330	140
	Rate	2.1	2.6	1.8
Manufacturing	Number	285	358	246
	Rate	2.1	2.6	1.8
Trade, Transportation, Utilities	Number	901	958	611
	Rate	3.4	3.6	2.2
Retail	Number	617	656	346
	Rate	4.0	4.2	2.2
Professional and Business	Number	821	854	695
	Rate	4.5	4.7	3.7
Education and Health	Number	522	462	748
	Rate	2.8	2.5	2.9
Leisure and Hospitality	Number	850	848	519
	Rate	6.2	6.2	3.7
Accommodation and Food	Number	706	706	462
	Rate	6.1	6.1	3.8
Government	Number	389	283	441
	Rate	1.7	1.3	1.9

Trends in the Number of Job Vacancies in the Northeast Region and Massachusetts, Fourth Quarter 2006 to Fourth Quarter 2007



The Number of Job Vacancies and the Job Vacancy Rate of Major Industry Sectors in Massachusetts, Fourth Quarter 2007

Industry	Number of Job Vacancies	Job Vacancy Rate	Industry	Number of Job Vacancies	Job Vacancy Rate
Utilities	127	1.0%	Professional & Technical Services	11,527	5.5%
Construction	1,601	1.3%	Management	1,508	2.5%
Manufacturing	5,753	2.1%	Administrative & Waste Services	3,383	3.7%
Wholesale Trade	2,252	2.0%	Educational Services	4,230	1.3%
Retail Trade	13,504	4.2%	Healthcare	20,016	4.4%
Transportation Warehousing	1,727	1.8%	Arts, Entertainment & Recreation	1,598	3.7%
Information	2,885	3.5%	Accommodation & Food Services	10,580	4.6%
Finance & Insurance	5,432	3.3%	Other Services	2,237	2.7%
Real Estate, Rental & Leasing	736	2.1%	Public Administration	2,862	2.6%

The Number of Job Vacancies and the Job Vacancy Rate of Major Industry Sectors in the Northeast Region, Fourth Quarter 2007


Industry	Number of Job Vacancies	Job Vacancy Rate	Industry	Number of Job Vacancies	Job Vacancy Rate
Utilities	NA	NA	Professional & Technical Services	1,308	4.9%
Construction	270	1.6%	Management	156	3.1%
Manufacturing	1,406	2.4%	Administrative & Support & Waste Services	347	3.3%
Wholesale Trade	240	1.5%	Educational Services	404	1.0%
Retail Trade	1,235	2.8%	Healthcare	2,519	4.3%
Transportation Warehousing	262	2.6%	Arts, Entertainment & Recreation	326	5.5%
Information	361	2.8%	Accommodation & Food Services	1,112	3.7%
Finance & Insurance	383	3.3%	Other Services	222	2.1%
Real Estate, Rental & Leasing	16	0.4%	Public Administration	1,246	8.9%

The Number of Job Vacancies and the Job Vacancy Rate of Major Occupations in Massachusetts, Fourth Quarter 2007

Occupation	Number of Job Vacancies	Job Vacancy Rate	Occupation	Number of Job Vacancies	Job Vacancy Rate
Total, All Occupations	92,021	3.2%	Healthcare Support	4,220	4.5%
Management Occupations	6,396	3.5%	Protective Service	1,628	2.3%
Business and Financial Operations	5,853	3.5%	Food Preparation and Serving Related	8,965	3.4%
Computer and Mathematical	4,796	4.2%	Building and Grounds Workers	1,703	1.6%
Architecture and Engineering	3,093	4.2%	Personal Care and Service	3,032	4.3%
Life, Physical, and Social Services	2,612	5.6%	Sales and Related	13,134	4.0%
Community and Social Services	2,520	4.3%	Office and Administrative Support	12,174	2.2%
Legal	432	1.8%	Construction and Extraction	880	0.8%
Education, Training and Library	2,972	1.4%	Installation, Maintenance, and Repair	2,045	2.0%
Arts, Design, Entertainment, Sports and Media	962	2.0%	Production	2,354	1.3%
Healthcare Practitioner and Technical	8,654	4.4%	Transportation and Material Moving	3,577	2.2%

The Number of Job Vacancies and the Job Vacancy Rate of Major Occupations in the Northeast Region, Fourth Quarter 2007

Occupation	Number of Job Vacancies	Job Vacancy Rate	Occupation	Number of Job Vacancies	Job Vacancy Rate
Management Occupations	765	3.1%	Protective Service	174	2.0%
Business and Financial Operations	841	4.4%	Food Preparation and Serving Related	931	2.4%
Computer and Mathematical	615	3.3%	Building and Grounds	174	1.4%
Architecture and Engineering	473	3.1%	Personal Care and Service	469	5.3%
Life, Physical, and Social Services	271	5.2%	Sales and Related	1,222	2.9%
Community and Social Services	273	3.5%	Office and Administrative Support	2,222	3.0%
Education, Training and Library	312	1.1%	Construction and Extraction	32	0.2%
Arts, Design, Entertainment, Sports and Media	150	2.7%	Installation, Maintenance, and Repair	287	2.0%
Healthcare Practitioner and Technical	1,045	4.4%	Production	498	1.4%
Healthcare Support	741	5.6%	Transportation and Material Moving	322	1.4%



Trends in the Number of Associate's Degrees
Conferred in the U.S., New England, Massachusetts
Greater Lowell*, and Merrimack Valley, 1996 to 2006


	1996	2006	Absolute Change	Relative Change
U.S.	557,858	730,643	172,785	31%
New England	28,440	27,023	-1,417	-5%
Massachusetts	12,682	11,139	-1,543	-12%
Greater Lowell + MCC	842	896	54	6%
Merrimack Valley	577	577	0	0%

*Includes Middlesex Community College

Trends in the Number of Associate's Degrees Awarded in the U.S.,
New England, Massachusetts, Greater Lowell*, and Merrimack
Valley by Higher Education Sector, 1996 to 2006

Sector	1996	2006	Absolute Change	Relative Change
U.S.				
Public	454,452	573,941	119,489	26%
Private	103,406	156,702	53,296	52%
New England				
Public	17,746	18,027	281	2%
Private	10,694	8,996	-1,698	-16%
Massachusetts				
Public	8,213	8,659	446	5%
Private	4,469	2,480	-1,989	-45%
Greater Lowell + MCC				
Public	842	896	54	6%
Private	0	0	0	0%
Merrimack Valley				
Public	561	575	14	2%
Private	16	2	-14	-88%

*Includes
Middlesex
Community
College



Trends in Associate's Degrees Awarded by Greater Lowell* Colleges, by Broad Major Field of Study, 1996 to 2006

Major Field of Study	1996	2006	Absolute Change	Relative Change
Criminal Justice	85	78	-7	-8.2%
Health Sciences	181	148	-33	-18.2%
Business	194	153	-41	-21.1%
Engineering & Computer Science	77	79	2	2.6%
Education	31	53	22	71.0%
Law	0	23	23	NA
Arts & Humanities	265	346	81	30.6%
Sciences	9	16	7	77.8%
Total	842	896	54	6.4%

*Includes Middlesex Community College



Trends in Associate's Degrees Awarded by Merrimack Valley Colleges, by Broad Major Field of Study, 1996 to 2006

Major Field of Study	1996	2006	Absolute Change	Relative Change
Criminal Justice	32	31	-1	-3%
Health Sciences	156	126	-30	-19%
Business	132	115	-17	-13%
Engineering & Computer Science	81	63	-18	-22%
Education	0	34	34	-
Law	24	16	-8	-33%
Arts & Humanities	135	192	57	42%
Sciences	2	0	-2	-100%
Personal Services	15	0	-15	-100%
Total	577	577	0	0%

Distribution of Associate's Degrees Conferred by Broad Major
Fields of Study in Greater Lowell*, Merrimack Valley,
Massachusetts, New England and the U.S., 2006

	Greater Lowell	Merrimack Valley	Massachusetts	New England	U.S.
Criminal Justice	10%	5%	7%	6%	4%
Health Sciences	21%	22%	23%	21%	19%
Business	23%	20%	19%	21%	14%
Engineering & Computer Science	9%	11%	13%	14%	13%
Education	4%	6%	3%	2%	2%
Law	0%	3%	1%	1%	1%
Arts & Humanities	31%	33%	31%	27%	41%
Sciences	1%	0%	1%	1%	1%
Personal Services	0%	0%	2%	7%	4%
Undesignated Field of Study	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%

*Includes Middlesex Community College



Trends in the Number of Bachelor's Degrees
Conferred in the U.S., New England, Massachusetts
Greater Lowell, and Merrimack Valley, 1996 to 2006

	1996	2006	Absolute Change	Relative Change
U.S.	1,166,963	1,486,107	319,144	27%
New England	81,057	94,275	13,218	16%
Massachusetts	40,725	47,024	6,299	15%
Greater Lowell	1,123	1,294	171	15%
Merrimack Valley	504	445	-59	-12%

Trends in the Number of Bachelor's Degrees Awarded in the U.S.,
New England, Massachusetts, Greater Lowell, and Merrimack
Valley by Higher Education Sector, 1996 to 2006

Sector	1996	2006	Absolute Change	Relative Change
U.S.				
Public	774,264	954,254	179,990	23%
Private	392,699	531,853	139,154	35%
New England				
Public	32,224	37,712	5,488	17%
Private	48,833	56,563	7,730	16%
Massachusetts				
Public	12,312	13,950	1,638	13%
Private	28,413	33,074	4,661	16%
Greater Lowell				
Public	1123	1294	171	15%
Private	0	0	0	0%
Merrimack Valley				
Public	0	0	0	0%
Private	504	445	-59	-12%



Trends in Bachelor's Degrees Awarded by Greater Lowell Colleges, by Broad Major Field of Study, 1996 to 2006

Major Field of Study	1996	2006	Absolute Change	Relative Change
Criminal Justice	133	155	22	17%
Health Sciences	124	105	-19	-15%
Business	221	233	12	5%
Engineering & Computer Science	245	344	99	40%
Education	23	11	-12	-52%
Law	0	0	0	0%
Arts & Humanities	277	354	77	28%
Sciences	100	67	-33	-33%
Personal Services	0	0	0	0%
Total	1123	1294	171	15%



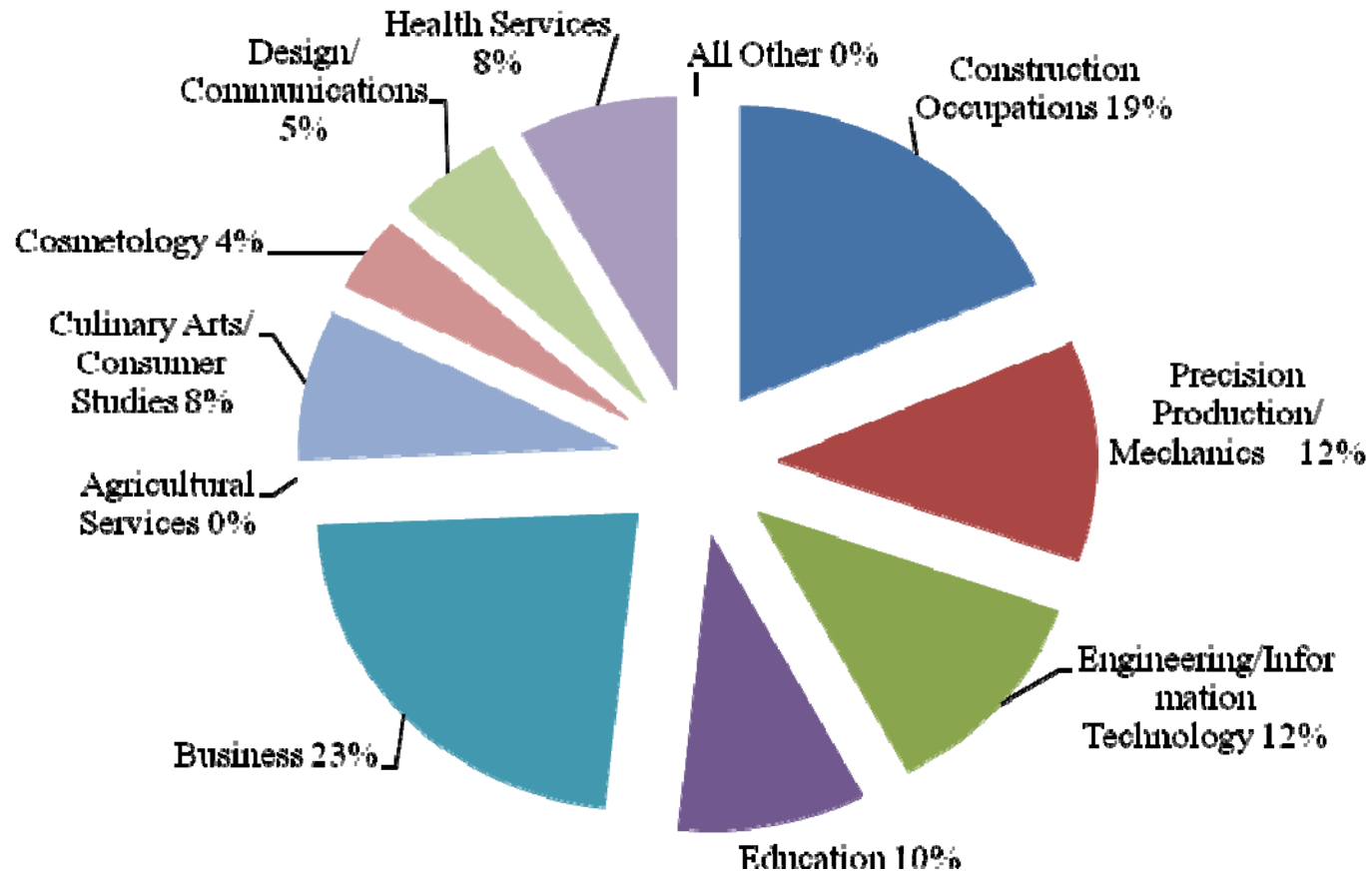
Trends in Bachelor's Degrees Awarded by Merrimack Valley Colleges, by Broad Major Field of Study, 1996 to 2006

Major Field of Study	1996	2006	Absolute Change	Relative Change
Criminal Justice	0	0	0	0%
Health Sciences	17	22	5	29%
Business	208	167	-41	-20%
Engineering & Computer Science	42	25	-17	-40%
Education	0	0	0	0%
Law	0	0	0	0%
Arts & Humanities	206	188	-18	-9%
Sciences	31	32	1	3%
Personal Services	0	0	0	0%
Total	504	445	-59	-12%

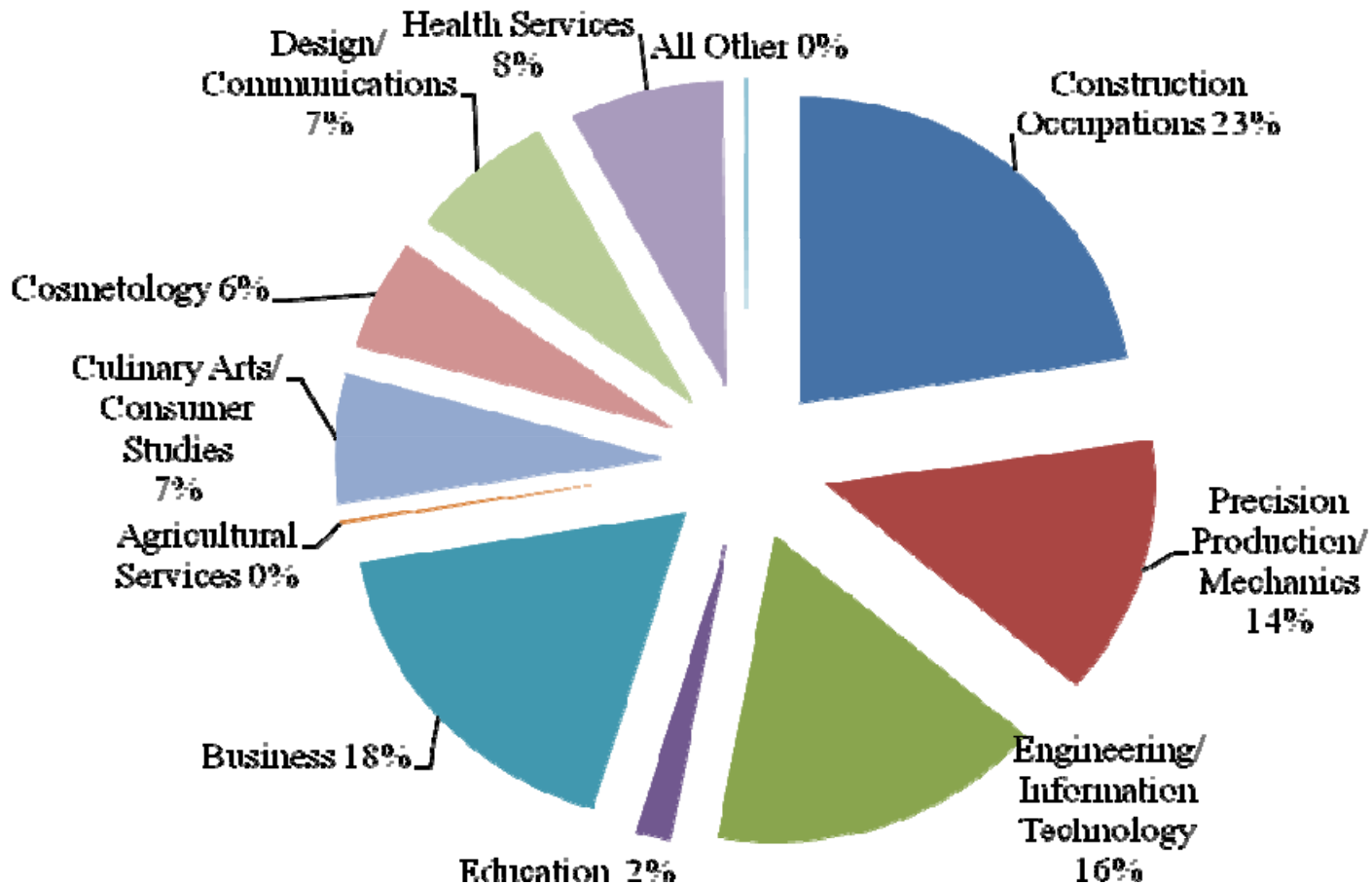
Distribution of Bachelor's Degrees Conferred by Broad Major
Fields of Study in Greater Lowell, Merrimack Valley,
Massachusetts, New England and the U.S., 2006

	Greater Lowell	Merrimack Valley	Massachusetts	New England	U.S.
Criminal Justice	12%	0%	3%	2%	2%
Health Sciences	8%	5%	6%	7%	8%
Business	18%	38%	19%	19%	22%
Engineering & Computer Science	27%	6%	9%	8%	9%
Education	1%	0%	3%	4%	7%
Law	0%	0%	0%	0%	0%
Arts & Humanities	27%	42%	48%	47%	39%
Sciences	5%	7%	8%	8%	8%
Personal Services	0%	0%	0%	1%	1%
Undesignated Field of Study	2%	2%	3%	3%	2%
Total	100%	100%	100%	100%	100%

The Percent Distribution of Class of 2007 Career and Technical Education Secondary Graduates in the Greater Lowell Region, by Major Occupational Field of Study



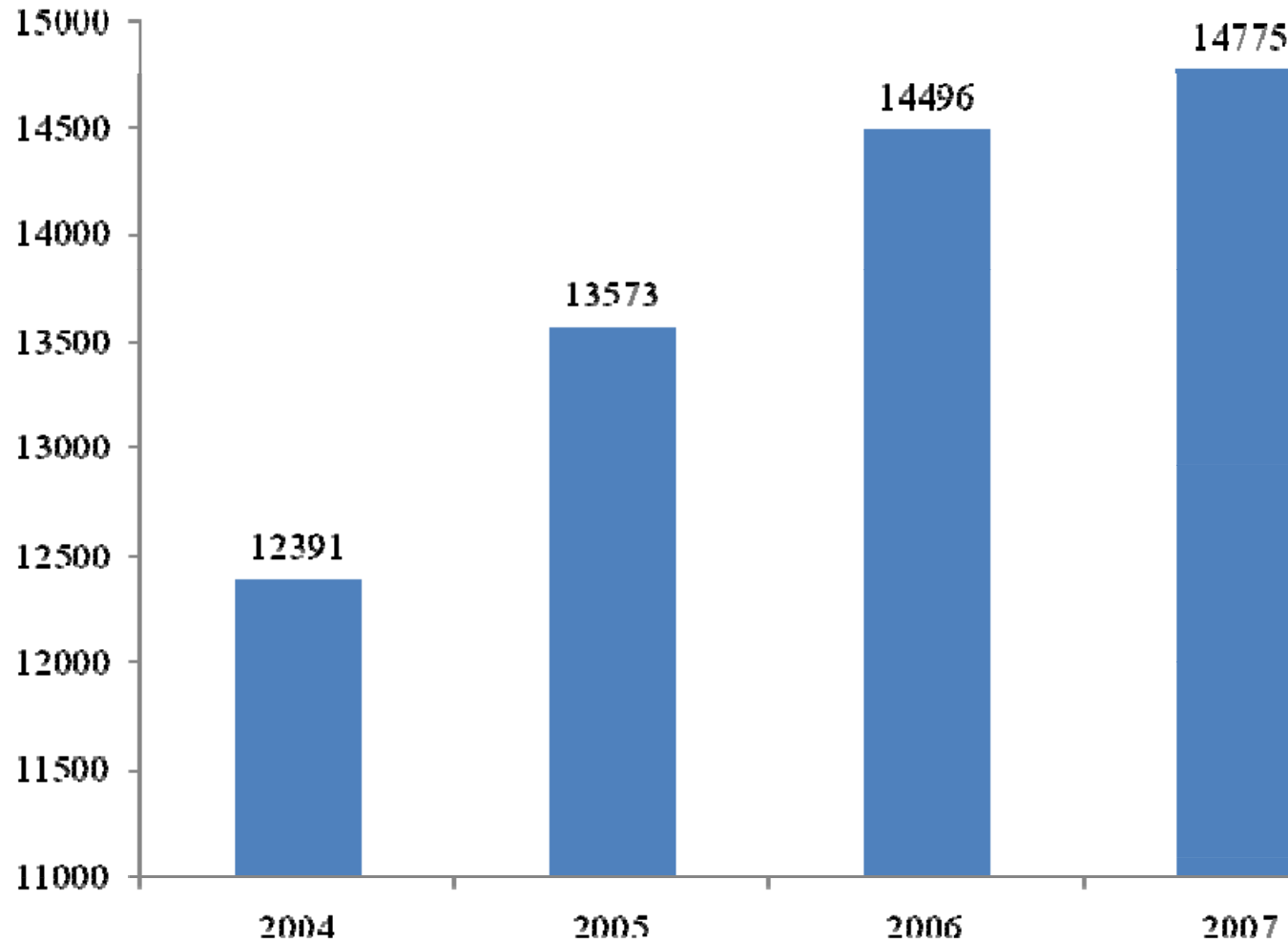
The Percent Distribution of Class of 2007 Career and Technical Education Secondary Graduates in the Merrimack Valley Region, by Major Occupational Field of Study



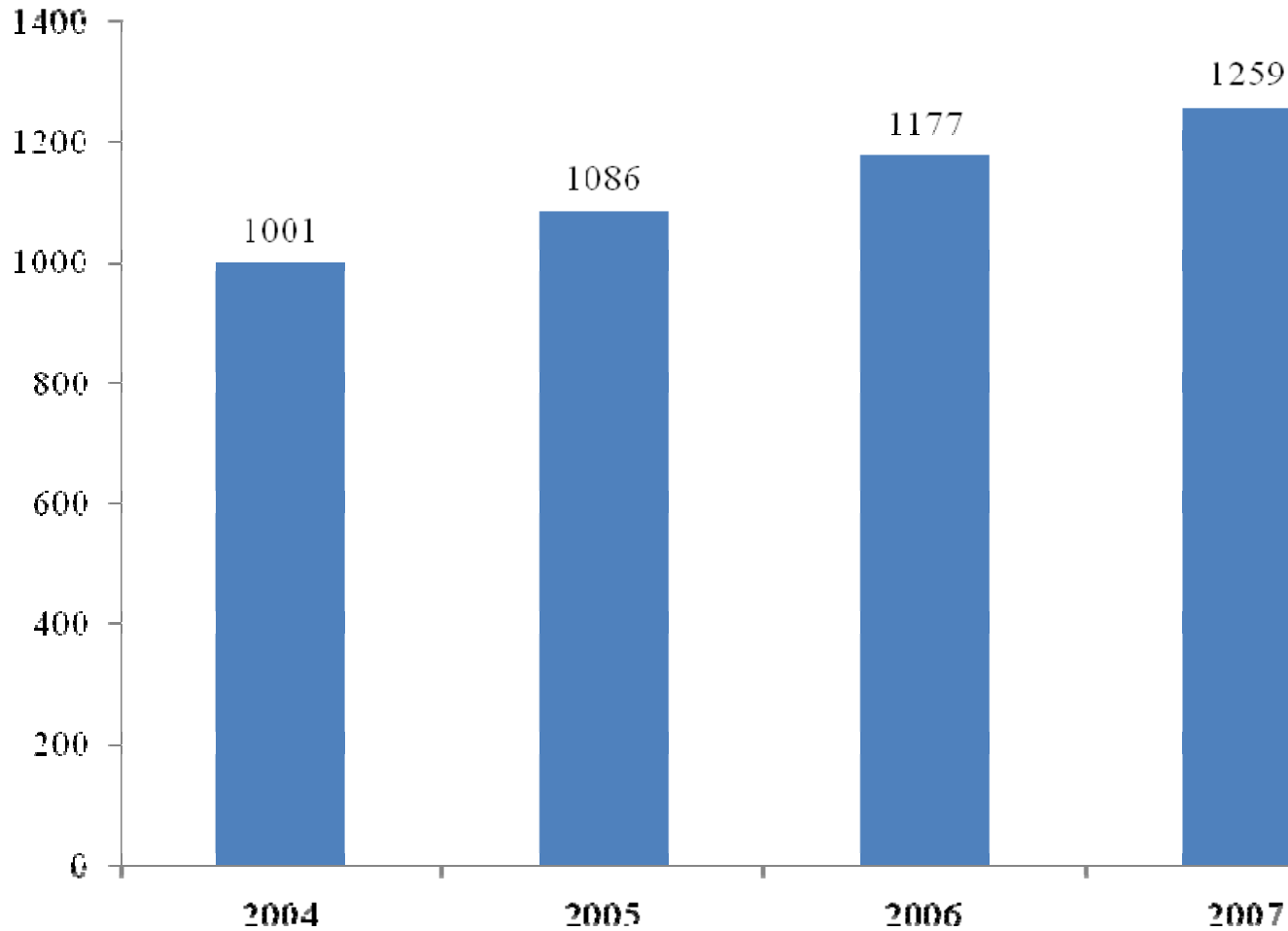
The Percent Distribution of Class of 2007 Career and Technical Education Secondary Graduates in Massachusetts, Greater Lowell, and Merrimack Valley, by Occupational Field of Study


	Massachusetts	Greater Lowell	Merrimack Valley
Construction Occupations	15%	19%	23%
Precision Production/Mechanics	12%	12%	14%
Engineering/Information Technology	16%	12%	16%
Education	8%	10%	2%
Business	19%	23%	18%
Agricultural Services	3%	0%	0%
Culinary Arts/Consumer Studies	9%	8%	7%
Cosmetology	3%	4%	6%
Design/Communications	6%	5%	7%
Health Services	8%	8%	8%
All Other	1%	0%	0%
Total	100%	100%	100%

Trends in the Total Number of Secondary
Career and Technical Education Graduates in
Massachusetts, 2004 to 2007

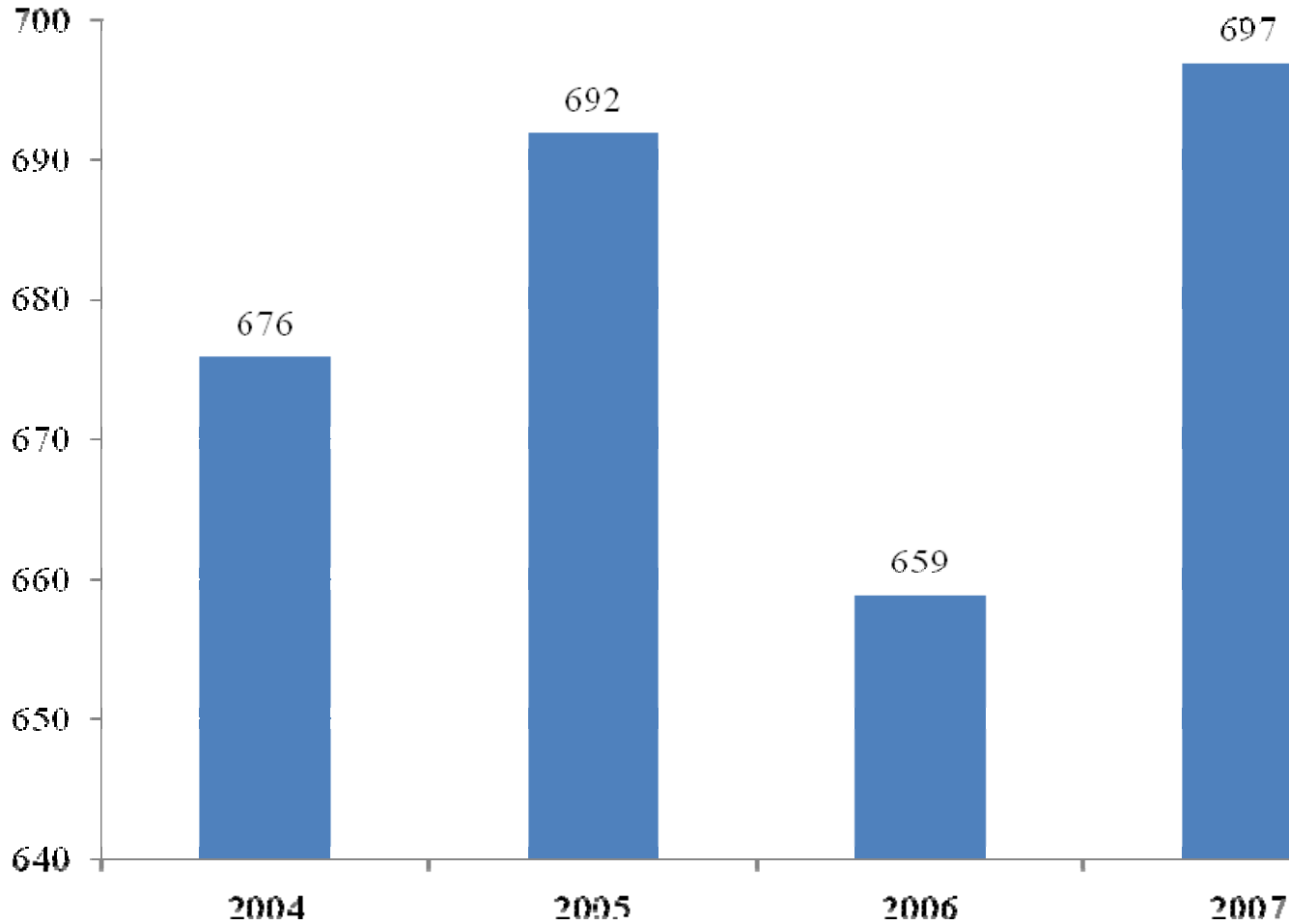


Trends in the Total Number of Secondary
Career and Technical Education Graduates in the
Greater Lowell Region, 2004 to 2007





Trends in the Total Number of Secondary Career and Technical Education Graduates in the Merrimack Valley Region, 2004 to 2007



Trends in the Number of Secondary Career and Technical Education Graduates in Massachusetts, by Major Occupational Field of Study, 2004 to 2007

Major Occupational Field of Study	2004	2005	2006	2007	Absolute Change	Relative Change
Construction Occupations	1782	1880	2024	2156	374	21%
Precision Production/Mechanics	1411	1589	1680	1753	342	24%
Engineering/Information Technology	2193	2262	2344	2320	127	6%
Education	399	548	600	649	250	63%
Business	2723	2907	3144	2915	192	7%
Agricultural Services	421	418	419	464	43	10%
Culinary Arts/Consumer Studies	1003	974	1246	1292	289	29%
Cosmetology	409	461	462	499	90	22%
Design/Communications	694	724	724	875	181	26%
Health Services	930	1176	1224	1221	291	31%
Technology Education	248	404	459	468	220	89%
All Other	178	230	170	163	-15	-8%
Total	12391	13573	14496	14775	2384	19%

Trends in the Number of Secondary Career and Technical Education Graduates in the Greater Lowell Region, by Major Occupational Field of Study, 2004 to 2007

Major Occupational Field of Study	2004	2005	2006	2007	Absolute Change	Relative Change
Construction Occupations	188	213	212	233	45	24%
Precision Production/Mechanics	97	140	108	151	54	56%
Engineering/Information Technology	220	185	167	147	-73	-33%
Education	51	46	94	120	69	135%
Business	185	220	265	285	100	54%
Agricultural Services	2	3	4	0	-2	-100%
Culinary Arts/Consumer Studies	52	43	112	103	51	98%
Cosmetology	42	41	41	52	10	24%
Design/Communications	86	77	77	67	-19	-22%
Health Services	71	111	94	101	30	42%
All Other	7	7	3	0	-7	-100%
Total	1001	1086	1177	1259	258	26%

Trends in the Number of Secondary Career and Technical Education Graduates in the Merrimack Valley Region, by Major Occupational Field of Study, 2004 to 2007

Major Occupational Field of Study	2004	2005	2006	2007	Absolute Change	Relative Change
Construction Occupations	159	125	146	158	-1	-1%
Precision Production/Mechanics	74	90	79	95	21	28%
Engineering/Information Technology	142	210	106	115	-27	-19%
Education	0	0	0	12	12	NA
Business	160	92	164	125	-35	-22%
Agricultural Services	0	0	0	1	1	NA
Culinary Arts/Consumer Studies	36	28	33	47	11	31%
Cosmetology	37	31	40	40	3	8%
Design/Communications	33	62	35	50	17	52%
Health Services	35	50	56	53	18	51%
All Other	0	4	0	1	1	NA
Total	676	692	659	697	21	3%