

**Employment Distribution and Location Quotients by Major Industry Sector
U.S., Massachusetts and the 16 Workforce Areas
2008 Annual Average Private Industry Employment**

The location quotient is a measure that helps analysts examine the relative concentration of industry employment in a particular area relative to another larger, or base, area. For Massachusetts, the U.S. is the base area. For Workforce Areas, the state is the base area. The measures are relatively easy to calculate yet provide a potentially valuable insight into a local labor market's industry structure, relative to the larger base area. The tables are computed using annual average private industry employment data and are published annually.

For a more detailed explanation of the calculation, uses and interpretation of location quotients, see the narrative summary accompanying the updated 2008 tables.

Guide to Interpretation of Location Quotients

General Concept

The location quotient (LQ) is a commonly used measure intended to help analysts compare a region's level of industry concentration relative to a larger geographic unit such as the state or the nation as a whole. The larger geographic area is referred to as the "base" area or the "reference" area. Location quotients are typically developed for a state, with the U.S. as the base area, or a sub-state area (such as a labor market area or a Workforce Area), with the state as the base area. Location quotients are relatively simple to calculate and yet offer a quick and often valuable insight into a region's employment dynamics.

Calculation of Location Quotients

The location quotient is the calculated ratio of an industry's share of total local area employment divided by the same industry's share of total base area employment. For example, to calculate a location quotient for Educational Services (NAICS Sector 61) employment in Boston, one would need the following data:

- Educational Services employment for Boston
- Total employment for Boston
- Educational Services employment for the base area (usually the state)
- Total employment for the state

The formula is as follows:

$$\text{L:Q.} = \frac{\frac{\text{Educational Services employment in Boston}}{\text{Total employment in Boston}}}{\frac{\text{Educational Services employment in MA}}{\text{Total Employment in MA}}}$$

Interpretation of Location Quotients

A location quotient of greater than one means that the local area has a relatively higher concentration of employment in a given industry than the base area. A location quotient equal to one means that the local area has the same proportion of employment in a given industry as the base area. Location quotients of less than one mean that the area has a smaller proportion of employment in the industry than the base area. This measure can be computed at any industry level the analyst deems important. Location quotients at the aggregated two digit NAICS Sector level may mask significant activity in more detailed industries in the local area. Location quotients should also be viewed in conjunction with other factors, such as the absolute level of employment in the industry. A very high location quotient in an industry that only employs a small number of workers is probably not that significant to local planners. It is generally accepted practice to interpret location quotients of ≥ 1.25 as "high" and $\leq .75$ as "low."

One should keep in mind that the location quotient is only an indicator of relative employment concentration in a given area, as compared to the larger (base) area. A high L.Q. does not necessarily mean that there will be growth in that industry. It only means that, on a relative basis, the industry is significant to the local economy. Employment growth is dependent on such factors as the current phase of the business cycle, current nature of technology, business practices, consumer tastes and preferences, demographic trends, etc.

While location quotients can provide useful insights into industries where a local comparative advantage exists, they cannot, in and of themselves, provide specific policy guidance. They can help policy makers formulate further questions as to the nature of an areas comparative advantage and how to take advantage of the situation. Some possible questions are:

- 1) Is the industry dominated by a few large firms or are there many smaller firms?
- 2) What are the reasons why employers are attracted to the area and what can be done to encourage growth (or discourage an exodus) of employers?
- 3) Are there any current or forecasted trends that may make the location of employers in the region more or less desirable

The analysis of location quotients, and other local data, is only the first step. The formulation and implementation of appropriate policy responses is the real challenge for local planners in the employment and training system.

**Employment Shares and Location Quotients by Major Industry Sector
U.S. vs. Massachusetts
2008 Annual Average Private Employment**

	Annual Average Employment		Percent of Total Employment		Location Quotient*
	U.S.	Mass.	U.S.	Mass.	Mass.
Total, All Industries, Private	113,192,473	2,831,460	100.0%	100.0%	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,169,195	6,508	1.0%	0.2%	0.22
23 - Construction	7,125,029	132,725	6.3%	4.7%	0.74
31-33 - Manufacturing	13,383,162	286,458	11.8%	10.1%	0.86
Trade, Transportation and Utilities	26,089,599	565,860	23.0%	20.0%	0.87
22 - Utilities	558,015	10,030	0.5%	0.4%	0.72
42 - Wholesale Trade	5,954,232	136,527	5.3%	4.8%	0.92
44-45 - Retail Trade	15,306,516	347,873	13.5%	12.3%	0.91
48-49 - Transportation and Warehousing	4,270,836	71,430	3.8%	2.5%	0.67
51 - Information	2,988,732	89,258	2.6%	3.2%	1.19
Financial Activities	7,967,036	221,608	7.0%	7.8%	1.11
52 - Finance and Insurance	5,856,864	179,231	5.2%	6.3%	1.22
53 - Real Estate and Rental and Leasing	2,110,171	42,378	1.9%	1.5%	0.80
Professional and Business Services	17,706,430	487,754	15.6%	17.2%	1.10
54 - Professional and Technical Services	7,814,285	258,622	6.9%	9.1%	1.32
55 - Management of Companies and Enterprises	1,895,570	61,461	1.7%	2.2%	1.30
56 - Administrative and Waste Services	7,996,575	167,671	7.1%	5.9%	0.84
Education and Health Services	17,953,686	604,912	15.9%	21.4%	1.35
61 - Educational Services, Private	2,367,685	125,681	2.1%	4.4%	2.12
62 - Health Care and Social Assistance	15,586,001	479,231	13.8%	16.9%	1.23
Leisure and Hospitality	13,394,811	306,132	11.8%	10.8%	0.91
71 - Arts, Entertainment, and Recreation	1,978,217	49,255	1.7%	1.7%	1.00
72 - Accommodation and Food Services	11,416,594	256,878	10.1%	9.1%	0.90
81 - Other Services, Except Public Admin	4,483,967	128,977	4.0%	4.6%	1.15

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Berkshire County Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Berkshire	U.S.	Mass.	Berkshire	Mass.	Berkshire
Total, All Industries, Private	114,014,680	2,831,460	54,805	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	161	1.0%	0.2%	0.3%	0.22	1.28
23 - Construction	7,562,373	132,725	3,075	6.6%	4.7%	5.6%	0.71	1.20
31-33 - Manufacturing	13,834,745	286,458	5,510	12.1%	10.1%	10.1%	0.83	0.99
Trade, Transportation and Utilities	26,334,681	565,860	10,828	23.1%	20.0%	19.8%	0.87	0.99
22 - Utilities	549,560	10,030	263	0.5%	0.4%	0.5%	0.73	1.35
42 - Wholesale Trade	5,985,704	136,527	1,072	5.2%	4.8%	2.0%	0.92	0.41
44-45 - Retail Trade	15,507,891	347,873	8,657	13.6%	12.3%	15.8%	0.90	1.29
48-49 - Transportation and Warehousing	4,291,526	71,430	836	3.8%	2.5%	1.5%	0.67	0.60
51 - Information	3,028,274	89,258	965	2.7%	3.2%	1.8%	1.19	0.56
Financial Activities	8,144,680	221,608	2,699	7.1%	7.8%	4.9%	1.10	0.63
52 - Finance and Insurance	5,992,144	179,231	2,030	5.3%	6.3%	3.7%	1.20	0.59
53 - Real Estate and Rental and Leasing	2,152,536	42,378	669	1.9%	1.5%	1.2%	0.79	0.82
Professional and Business Services	17,864,146	487,754	5,237	15.7%	17.2%	9.6%	1.10	0.55
54 - Professional and Technical Services	7,631,158	258,622	2,587	6.7%	9.1%	4.7%	1.36	0.52
55 - Management of Companies and Enterprises	1,839,929	61,461	440	1.6%	2.2%	0.8%	1.35	0.37
56 - Administrative and Waste Services	8,393,060	167,671	2,210	7.4%	5.9%	4.0%	0.80	0.68
Education and Health Services	17,428,926	604,912	14,115	15.3%	21.4%	25.8%	1.40	1.21
61 - Educational Services, Private	2,284,111	125,681	2,812	2.0%	4.4%	5.1%	2.22	1.16
62 - Health Care and Social Assistance	15,144,814	479,231	11,304	13.3%	16.9%	20.6%	1.27	1.22
Leisure and Hospitality	13,327,039	306,132	9,000	11.7%	10.8%	16.4%	0.92	1.52
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,823	1.7%	1.7%	3.3%	1.02	1.91
72 - Accommodation and Food Services	11,373,174	256,878	7,177	10.0%	9.1%	13.1%	0.91	1.44
81 - Other Services, Except Public Admin	4,437,318	128,977	3,126	3.9%	4.6%	5.7%	1.17	1.25

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Boston Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Boston	U.S.	Mass.	Boston	Mass.	Boston
Total, All Industries, Private	114,014,680	2,831,460	494,642	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	7	1.0%	0.2%	0.0%	0.22	0.01
23 - Construction	7,562,373	132,725	11,396	6.6%	4.7%	2.3%	0.71	0.49
31-33 - Manufacturing	13,834,745	286,458	9,368	12.1%	10.1%	1.9%	0.83	0.19
Trade, Transportation and Utilities	26,334,681	565,860	54,435	23.1%	20.0%	11.0%	0.87	0.55
22 - Utilities	549,560	10,030	2,161	0.5%	0.4%	0.4%	0.73	1.23
42 - Wholesale Trade	5,985,704	136,527	9,144	5.2%	4.8%	1.8%	0.92	0.38
44-45 - Retail Trade	15,507,891	347,873	27,818	13.6%	12.3%	5.6%	0.90	0.46
48-49 - Transportation and Warehousing	4,291,526	71,430	15,313	3.8%	2.5%	3.1%	0.67	1.23
51 - Information	3,028,274	89,258	15,106	2.7%	3.2%	3.1%	1.19	0.97
Financial Activities	8,144,680	221,608	86,116	7.1%	7.8%	17.4%	1.10	2.22
52 - Finance and Insurance	5,992,144	179,231	74,861	5.3%	6.3%	15.1%	1.20	2.39
53 - Real Estate and Rental and Leasing	2,152,536	42,378	11,256	1.9%	1.5%	2.3%	0.79	1.52
Professional and Business Services	17,864,146	487,754	101,786	15.7%	17.2%	20.6%	1.10	1.19
54 - Professional and Technical Services	7,631,158	258,622	57,712	6.7%	9.1%	11.7%	1.36	1.28
55 - Management of Companies and Enterprises	1,839,929	61,461	6,805	1.6%	2.2%	1.4%	1.35	0.63
56 - Administrative and Waste Services	8,393,060	167,671	37,269	7.4%	5.9%	7.5%	0.80	1.27
Education and Health Services	17,428,926	604,912	140,016	15.3%	21.4%	28.3%	1.40	1.32
61 - Educational Services, Private	2,284,111	125,681	31,174	2.0%	4.4%	6.3%	2.22	1.42
62 - Health Care and Social Assistance	15,144,814	479,231	108,842	13.3%	16.9%	22.0%	1.27	1.30
Leisure and Hospitality	13,327,039	306,132	55,066	11.7%	10.8%	11.1%	0.92	1.03
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	7,895	1.7%	1.7%	1.6%	1.02	0.92
72 - Accommodation and Food Services	11,373,174	256,878	47,171	10.0%	9.1%	9.5%	0.91	1.05
81 - Other Services, Except Public Admin	4,437,318	128,977	21,313	3.9%	4.6%	4.3%	1.17	0.95

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Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Bristol Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Bristol	U.S.	Mass.	Bristol	Mass.	Bristol
Total, All Industries, Private	114,014,680	2,831,460	126,629	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	332	1.0%	0.2%	0.3%	0.22	1.14
23 - Construction	7,562,373	132,725	5,868	6.6%	4.7%	4.6%	0.71	0.99
31-33 - Manufacturing	13,834,745	286,458	18,611	12.1%	10.1%	14.7%	0.83	1.45
Trade, Transportation and Utilities	26,334,681	565,860	37,432	23.1%	20.0%	29.6%	0.87	1.48
22 - Utilities	549,560	10,030	631	0.5%	0.4%	0.5%	0.73	1.41
42 - Wholesale Trade	5,985,704	136,527	8,836	5.2%	4.8%	7.0%	0.92	1.45
44-45 - Retail Trade	15,507,891	347,873	24,560	13.6%	12.3%	19.4%	0.90	1.58
48-49 - Transportation and Warehousing	4,291,526	71,430	3,406	3.8%	2.5%	2.7%	0.67	1.07
51 - Information	3,028,274	89,258	2,739	2.7%	3.2%	2.2%	1.19	0.69
Financial Activities	8,144,680	221,608	4,915	7.1%	7.8%	3.9%	1.10	0.50
52 - Finance and Insurance	5,992,144	179,231	3,680	5.3%	6.3%	2.9%	1.20	0.46
53 - Real Estate and Rental and Leasing	2,152,536	42,378	1,235	1.9%	1.5%	1.0%	0.79	0.65
Professional and Business Services	17,864,146	487,754	12,963	15.7%	17.2%	10.2%	1.10	0.59
54 - Professional and Technical Services	7,631,158	258,622	4,337	6.7%	9.1%	3.4%	1.36	0.37
55 - Management of Companies and Enterprises	1,839,929	61,461	3,533	1.6%	2.2%	2.8%	1.35	1.29
56 - Administrative and Waste Services	8,393,060	167,671	5,093	7.4%	5.9%	4.0%	0.80	0.68
Education and Health Services	17,428,926	604,912	23,037	15.3%	21.4%	18.2%	1.40	0.85
61 - Educational Services, Private	2,284,111	125,681	1,167	2.0%	4.4%	0.9%	2.22	0.21
62 - Health Care and Social Assistance	15,144,814	479,231	21,870	13.3%	16.9%	17.3%	1.27	1.02
Leisure and Hospitality	13,327,039	306,132	14,601	11.7%	10.8%	11.5%	0.92	1.07
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,731	1.7%	1.7%	1.4%	1.02	0.79
72 - Accommodation and Food Services	11,373,174	256,878	12,870	10.0%	9.1%	10.2%	0.91	1.12
81 - Other Services, Except Public Admin	4,437,318	128,977	6,077	3.9%	4.6%	4.8%	1.17	1.05

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Brockton Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Brockton	U.S.	Mass.	Brockton	Mass.	Brockton
Total, All Industries, Private	114,014,680	2,831,460	76,618	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	66	1.0%	0.2%	0.1%	0.22	0.37
23 - Construction	7,562,373	132,725	5,561	6.6%	4.7%	7.3%	0.71	1.55
31-33 - Manufacturing	13,834,745	286,458	7,904	12.1%	10.1%	10.3%	0.83	1.02
Trade, Transportation and Utilities	26,334,681	565,860	21,327	23.1%	20.0%	27.8%	0.87	1.39
22 - Utilities	549,560	10,030	INA	0.5%	0.4%	INA	0.73	INA
42 - Wholesale Trade	5,985,704	136,527	5,228	5.2%	4.8%	6.8%	0.92	1.42
44-45 - Retail Trade	15,507,891	347,873	12,947	13.6%	12.3%	16.9%	0.90	1.38
48-49 - Transportation and Warehousing	4,291,526	71,430	2,959	3.8%	2.5%	3.9%	0.67	1.53
51 - Information	3,028,274	89,258	946	2.7%	3.2%	1.2%	1.19	0.39
Financial Activities	8,144,680	221,608	3,116	7.1%	7.8%	4.1%	1.10	0.52
52 - Finance and Insurance	5,992,144	179,231	2,110	5.3%	6.3%	2.8%	1.20	0.44
53 - Real Estate and Rental and Leasing	2,152,536	42,378	1,006	1.9%	1.5%	1.3%	0.79	0.88
Professional and Business Services	17,864,146	487,754	8,947	15.7%	17.2%	11.7%	1.10	0.68
54 - Professional and Technical Services	7,631,158	258,622	2,949	6.7%	9.1%	3.8%	1.36	0.42
55 - Management of Companies and Enterprises	1,839,929	61,461	1,434	1.6%	2.2%	1.9%	1.35	0.86
56 - Administrative and Waste Services	8,393,060	167,671	4,565	7.4%	5.9%	6.0%	0.80	1.01
Education and Health Services	17,428,926	604,912	16,072	15.3%	21.4%	21.0%	1.40	0.98
61 - Educational Services, Private	2,284,111	125,681	1,535	2.0%	4.4%	2.0%	2.22	0.45
62 - Health Care and Social Assistance	15,144,814	479,231	14,537	13.3%	16.9%	19.0%	1.27	1.12
Leisure and Hospitality	13,327,039	306,132	7,814	11.7%	10.8%	10.2%	0.92	0.94
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	759	1.7%	1.7%	1.0%	1.02	0.57
72 - Accommodation and Food Services	11,373,174	256,878	7,055	10.0%	9.1%	9.2%	0.91	1.01
81 - Other Services, Except Public Admin	4,437,318	128,977	4,834	3.9%	4.6%	6.3%	1.17	1.39

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Cape and Islands Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Cape & Islands	U.S.	Mass.	Cape & Islands	Mass.	Cape & Islands
Total, All Industries, Private	114,014,680	2,831,460	89,687	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	317	1.0%	0.2%	0.4%	0.22	1.54
23 - Construction	7,562,373	132,725	7,099	6.6%	4.7%	7.9%	0.71	1.69
31-33 - Manufacturing	13,834,745	286,458	2,333	12.1%	10.1%	2.6%	0.83	0.26
Trade, Transportation and Utilities	26,334,681	565,860	22,272	23.1%	20.0%	24.8%	0.87	1.24
22 - Utilities	549,560	10,030	403	0.5%	0.4%	0.4%	0.73	1.27
42 - Wholesale Trade	5,985,704	136,527	1,708	5.2%	4.8%	1.9%	0.92	0.39
44-45 - Retail Trade	15,507,891	347,873	17,991	13.6%	12.3%	20.1%	0.90	1.63
48-49 - Transportation and Warehousing	4,291,526	71,430	2,170	3.8%	2.5%	2.4%	0.67	0.96
51 - Information	3,028,274	89,258	1,939	2.7%	3.2%	2.2%	1.19	0.69
Financial Activities	8,144,680	221,608	4,484	7.1%	7.8%	5.0%	1.10	0.64
52 - Finance and Insurance	5,992,144	179,231	2,645	5.3%	6.3%	2.9%	1.20	0.47
53 - Real Estate and Rental and Leasing	2,152,536	42,378	1,839	1.9%	1.5%	2.1%	0.79	1.37
Professional and Business Services	17,864,146	487,754	9,568	15.7%	17.2%	10.7%	1.10	0.62
54 - Professional and Technical Services	7,631,158	258,622	4,637	6.7%	9.1%	5.2%	1.36	0.57
55 - Management of Companies and Enterprises	1,839,929	61,461	596	1.6%	2.2%	0.7%	1.35	0.31
56 - Administrative and Waste Services	8,393,060	167,671	4,335	7.4%	5.9%	4.8%	0.80	0.82
Education and Health Services	17,428,926	604,912	17,017	15.3%	21.4%	19.0%	1.40	0.89
61 - Educational Services, Private	2,284,111	125,681	977	2.0%	4.4%	1.1%	2.22	0.25
62 - Health Care and Social Assistance	15,144,814	479,231	16,040	13.3%	16.9%	17.9%	1.27	1.06
Leisure and Hospitality	13,327,039	306,132	20,038	11.7%	10.8%	22.3%	0.92	2.07
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	3,136	1.7%	1.7%	3.5%	1.02	2.01
72 - Accommodation and Food Services	11,373,174	256,878	16,902	10.0%	9.1%	18.8%	0.91	2.08
81 - Other Services, Except Public Admin	4,437,318	128,977	4,556	3.9%	4.6%	5.1%	1.17	1.12

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Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Central Mass. Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Central Mass.	U.S.	Mass.	Central Mass.	Mass.	Central Mass.
Total, All Industries, Private	114,014,680	2,831,460	207,846	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	219	1.0%	0.2%	0.1%	0.22	0.46
23 - Construction	7,562,373	132,725	9,816	6.6%	4.7%	4.7%	0.71	1.01
31-33 - Manufacturing	13,834,745	286,458	26,886	12.1%	10.1%	12.9%	0.83	1.28
Trade, Transportation and Utilities	26,334,681	565,860	46,534	23.1%	20.0%	22.4%	0.87	1.12
22 - Utilities	549,560	10,030	1,143	0.5%	0.4%	0.5%	0.73	1.55
42 - Wholesale Trade	5,985,704	136,527	10,651	5.2%	4.8%	5.1%	0.92	1.06
44-45 - Retail Trade	15,507,891	347,873	28,174	13.6%	12.3%	13.6%	0.90	1.10
48-49 - Transportation and Warehousing	4,291,526	71,430	6,567	3.8%	2.5%	3.2%	0.67	1.25
51 - Information	3,028,274	89,258	3,981	2.7%	3.2%	1.9%	1.19	0.61
Financial Activities	8,144,680	221,608	13,371	7.1%	7.8%	6.4%	1.10	0.82
52 - Finance and Insurance	5,992,144	179,231	11,393	5.3%	6.3%	5.5%	1.20	0.87
53 - Real Estate and Rental and Leasing	2,152,536	42,378	1,978	1.9%	1.5%	1.0%	0.79	0.64
Professional and Business Services	17,864,146	487,754	28,280	15.7%	17.2%	13.6%	1.10	0.79
54 - Professional and Technical Services	7,631,158	258,622	11,192	6.7%	9.1%	5.4%	1.36	0.59
55 - Management of Companies and Enterprises	1,839,929	61,461	4,678	1.6%	2.2%	2.3%	1.35	1.04
56 - Administrative and Waste Services	8,393,060	167,671	12,410	7.4%	5.9%	6.0%	0.80	1.01
Education and Health Services	17,428,926	604,912	47,832	15.3%	21.4%	23.0%	1.40	1.08
61 - Educational Services, Private	2,284,111	125,681	7,242	2.0%	4.4%	3.5%	2.22	0.78
62 - Health Care and Social Assistance	15,144,814	479,231	40,590	13.3%	16.9%	19.5%	1.27	1.15
Leisure and Hospitality	13,327,039	306,132	21,622	11.7%	10.8%	10.4%	0.92	0.96
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	3,382	1.7%	1.7%	1.6%	1.02	0.94
72 - Accommodation and Food Services	11,373,174	256,878	18,240	10.0%	9.1%	8.8%	0.91	0.97
81 - Other Services, Except Public Admin	4,437,318	128,977	9,166	3.9%	4.6%	4.4%	1.17	0.97

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Franklin/Hampshire Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Franklin/Hamp.	U.S.	Mass.	Franklin/Hamp.	Mass.	Franklin/Hamp.
Total, All Industries, Private	114,014,680	2,831,460	69,449	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	743	1.0%	0.2%	1.1%	0.22	4.65
23 - Construction	7,562,373	132,725	2,889	6.6%	4.7%	4.2%	0.71	0.89
31-33 - Manufacturing	13,834,745	286,458	8,790	12.1%	10.1%	12.7%	0.83	1.25
Trade, Transportation and Utilities	26,334,681	565,860	15,480	23.1%	20.0%	22.3%	0.87	1.12
22 - Utilities	549,560	10,030	195	0.5%	0.4%	0.3%	0.73	0.79
42 - Wholesale Trade	5,985,704	136,527	2,731	5.2%	4.8%	3.9%	0.92	0.82
44-45 - Retail Trade	15,507,891	347,873	10,826	13.6%	12.3%	15.6%	0.90	1.27
48-49 - Transportation and Warehousing	4,291,526	71,430	1,728	3.8%	2.5%	2.5%	0.67	0.99
51 - Information	3,028,274	89,258	1,450	2.7%	3.2%	2.1%	1.19	0.66
Financial Activities	8,144,680	221,608	2,610	7.1%	7.8%	3.8%	1.10	0.48
52 - Finance and Insurance	5,992,144	179,231	1,799	5.3%	6.3%	2.6%	1.20	0.41
53 - Real Estate and Rental and Leasing	2,152,536	42,378	811	1.9%	1.5%	1.2%	0.79	0.78
Professional and Business Services	17,864,146	487,754	5,386	15.7%	17.2%	7.8%	1.10	0.45
54 - Professional and Technical Services	7,631,158	258,622	1,976	6.7%	9.1%	2.8%	1.36	0.31
55 - Management of Companies and Enterprises	1,839,929	61,461	1,073	1.6%	2.2%	1.5%	1.35	0.71
56 - Administrative and Waste Services	8,393,060	167,671	2,337	7.4%	5.9%	3.4%	0.80	0.57
Education and Health Services	17,428,926	604,912	19,001	15.3%	21.4%	27.4%	1.40	1.28
61 - Educational Services, Private	2,284,111	125,681	7,420	2.0%	4.4%	10.7%	2.22	2.41
62 - Health Care and Social Assistance	15,144,814	479,231	11,580	13.3%	16.9%	16.7%	1.27	0.99
Leisure and Hospitality	13,327,039	306,132	8,845	11.7%	10.8%	12.7%	0.92	1.18
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,463	1.7%	1.7%	2.1%	1.02	1.21
72 - Accommodation and Food Services	11,373,174	256,878	7,382	10.0%	9.1%	10.6%	0.91	1.17
81 - Other Services, Except Public Admin	4,437,318	128,977	4,199	3.9%	4.6%	6.0%	1.17	1.33

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Greater Lowell Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Lowell	U.S.	Mass.	Lowell	Mass.	Lowell
Total, All Industries, Private	114,014,680	2,831,460	98,627	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	55	1.0%	0.2%	0.1%	0.22	0.24
23 - Construction	7,562,373	132,725	6,072	6.6%	4.7%	6.2%	0.71	1.31
31-33 - Manufacturing	13,834,745	286,458	18,703	12.1%	10.1%	19.0%	0.83	1.87
Trade, Transportation and Utilities	26,334,681	565,860	19,973	23.1%	20.0%	20.3%	0.87	1.01
22 - Utilities	549,560	10,030	130	0.5%	0.4%	0.1%	0.73	0.37
42 - Wholesale Trade	5,985,704	136,527	5,684	5.2%	4.8%	5.8%	0.92	1.20
44-45 - Retail Trade	15,507,891	347,873	9,617	13.6%	12.3%	9.8%	0.90	0.79
48-49 - Transportation and Warehousing	4,291,526	71,430	4,541	3.8%	2.5%	4.6%	0.67	1.83
51 - Information	3,028,274	89,258	5,299	2.7%	3.2%	5.4%	1.19	1.70
Financial Activities	8,144,680	221,608	3,710	7.1%	7.8%	3.8%	1.10	0.48
52 - Finance and Insurance	5,992,144	179,231	2,744	5.3%	6.3%	2.8%	1.20	0.44
53 - Real Estate and Rental and Leasing	2,152,536	42,378	967	1.9%	1.5%	1.0%	0.79	0.66
Professional and Business Services	17,864,146	487,754	17,089	15.7%	17.2%	17.3%	1.10	1.01
54 - Professional and Technical Services	7,631,158	258,622	9,944	6.7%	9.1%	10.1%	1.36	1.10
55 - Management of Companies and Enterprises	1,839,929	61,461	2,181	1.6%	2.2%	2.2%	1.35	1.02
56 - Administrative and Waste Services	8,393,060	167,671	4,964	7.4%	5.9%	5.0%	0.80	0.85
Education and Health Services	17,428,926	604,912	13,846	15.3%	21.4%	14.0%	1.40	0.66
61 - Educational Services, Private	2,284,111	125,681	1,251	2.0%	4.4%	1.3%	2.22	0.29
62 - Health Care and Social Assistance	15,144,814	479,231	12,595	13.3%	16.9%	12.8%	1.27	0.75
Leisure and Hospitality	13,327,039	306,132	9,646	11.7%	10.8%	9.8%	0.92	0.90
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,299	1.7%	1.7%	1.3%	1.02	0.76
72 - Accommodation and Food Services	11,373,174	256,878	8,347	10.0%	9.1%	8.5%	0.91	0.93
81 - Other Services, Except Public Admin	4,437,318	128,977	4,127	3.9%	4.6%	4.2%	1.17	0.92

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Greater New Bedford Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	New Bedford	U.S.	Mass.	New Bedford	Mass.	New Bedford
Total, All Industries, Private	114,014,680	2,831,460	68,773	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	1,395	1.0%	0.2%	2.0%	0.22	8.83
23 - Construction	7,562,373	132,725	3,127	6.6%	4.7%	4.5%	0.71	0.97
31-33 - Manufacturing	13,834,745	286,458	10,985	12.1%	10.1%	16.0%	0.83	1.58
Trade, Transportation and Utilities	26,334,681	565,860	17,437	23.1%	20.0%	25.4%	0.87	1.27
22 - Utilities	549,560	10,030	INA	0.5%	0.4%	INA	0.73	INA
42 - Wholesale Trade	5,985,704	136,527	3,072	0.5%	0.4%	4.5%	0.73	12.61
44-45 - Retail Trade	15,507,891	347,873	10,892	5.2%	4.8%	15.8%	0.92	3.28
48-49 - Transportation and Warehousing	4,291,526	71,430	3,203	13.6%	12.3%	4.7%	0.90	0.38
51 - Information	3,028,274	89,258	952	3.8%	2.5%	1.4%	0.67	0.55
Financial Activities	8,144,680	221,608	2,407	2.7%	3.2%	3.5%	1.19	1.11
52 - Finance and Insurance	5,992,144	179,231	1,724	7.1%	7.8%	2.5%	1.10	0.32
53 - Real Estate and Rental and Leasing	2,152,536	42,378	683	5.3%	6.3%	1.0%	1.20	0.16
Professional and Business Services	17,864,146	487,754	5,238	1.9%	1.5%	7.6%	0.79	5.09
54 - Professional and Technical Services	7,631,158	258,622	2,059	15.7%	17.2%	3.0%	1.10	0.17
55 - Management of Companies and Enterprises	1,839,929	61,461	621	6.7%	9.1%	0.9%	1.36	0.10
56 - Administrative and Waste Services	8,393,060	167,671	2,558	1.6%	2.2%	3.7%	1.35	1.71
Education and Health Services	17,428,926	604,912	15,153	7.4%	5.9%	22.0%	0.80	3.72
61 - Educational Services, Private	2,284,111	125,681	1,168	15.3%	21.4%	1.7%	1.40	0.08
62 - Health Care and Social Assistance	15,144,814	479,231	13,985	2.0%	4.4%	20.3%	2.22	4.58
Leisure and Hospitality	13,327,039	306,132	8,303	13.3%	16.9%	12.1%	1.27	0.71
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,270	11.7%	10.8%	1.8%	0.92	0.17
72 - Accommodation and Food Services	11,373,174	256,878	7,033	1.7%	1.7%	10.2%	1.02	5.88
81 - Other Services, Except Public Admin	4,437,318	128,977	3,745	10.0%	9.1%	5.4%	0.91	0.60

*An explanation of the definition, calculation, uses and interpretation of location quotients is found immediately following this page

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Hampden County Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Hampden	U.S.	Mass.	Hampden	Mass.	Hampden
Total, All Industries, Private	114,014,680	2,831,460	166,082	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	241	1.0%	0.2%	0.1%	0.22	0.63
23 - Construction	7,562,373	132,725	7,086	6.6%	4.7%	4.3%	0.71	0.91
31-33 - Manufacturing	13,834,745	286,458	22,946	12.1%	10.1%	13.8%	0.83	1.37
Trade, Transportation and Utilities	26,334,681	565,860	35,983	23.1%	20.0%	21.7%	0.87	1.08
22 - Utilities	549,560	10,030	1,069	0.5%	0.4%	0.6%	0.73	1.82
42 - Wholesale Trade	5,985,704	136,527	6,139	5.2%	4.8%	3.7%	0.92	0.77
44-45 - Retail Trade	15,507,891	347,873	22,997	13.6%	12.3%	13.8%	0.90	1.13
48-49 - Transportation and Warehousing	4,291,526	71,430	5,778	3.8%	2.5%	3.5%	0.67	1.38
51 - Information	3,028,274	89,258	3,242	2.7%	3.2%	2.0%	1.19	0.62
Financial Activities	8,144,680	221,608	11,854	7.1%	7.8%	7.1%	1.10	0.91
52 - Finance and Insurance	5,992,144	179,231	9,372	5.3%	6.3%	5.6%	1.20	0.89
53 - Real Estate and Rental and Leasing	2,152,536	42,378	2,482	1.9%	1.5%	1.5%	0.79	1.00
Professional and Business Services	17,864,146	487,754	15,604	15.7%	17.2%	9.4%	1.10	0.55
54 - Professional and Technical Services	7,631,158	258,622	5,641	6.7%	9.1%	3.4%	1.36	0.37
55 - Management of Companies and Enterprises	1,839,929	61,461	2,808	1.6%	2.2%	1.7%	1.35	0.78
56 - Administrative and Waste Services	8,393,060	167,671	7,156	7.4%	5.9%	4.3%	0.80	0.73
Education and Health Services	17,428,926	604,912	40,105	15.3%	21.4%	24.1%	1.40	1.13
61 - Educational Services, Private	2,284,111	125,681	4,347	2.0%	4.4%	2.6%	2.22	0.59
62 - Health Care and Social Assistance	15,144,814	479,231	35,757	13.3%	16.9%	21.5%	1.27	1.27
Leisure and Hospitality	13,327,039	306,132	17,380	11.7%	10.8%	10.5%	0.92	0.97
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	2,986	1.7%	1.7%	1.8%	1.02	1.03
72 - Accommodation and Food Services	11,373,174	256,878	14,394	10.0%	9.1%	8.7%	0.91	0.96
81 - Other Services, Except Public Admin	4,437,318	128,977	11,560	3.9%	4.6%	7.0%	1.17	1.53

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Merrimack Valley Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Merrimack	U.S.	Mass.	Merrimack	Mass.	Merrimack
Total, All Industries, Private	114,014,680	2,831,460	114,738	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	136	1.0%	0.2%	0.1%	0.22	0.52
23 - Construction	7,562,373	132,725	5,662	6.6%	4.7%	4.9%	0.71	1.05
31-33 - Manufacturing	13,834,745	286,458	25,582	12.1%	10.1%	22.3%	0.83	2.20
Trade, Transportation and Utilities	26,334,681	565,860	17,784	23.1%	20.0%	15.5%	0.87	0.78
22 - Utilities	549,560	10,030	371	0.5%	0.4%	0.3%	0.73	0.91
42 - Wholesale Trade	5,985,704	136,527	4,323	5.2%	4.8%	3.8%	0.92	0.78
44-45 - Retail Trade	15,507,891	347,873	11,601	13.6%	12.3%	10.1%	0.90	0.82
48-49 - Transportation and Warehousing	4,291,526	71,430	1,490	3.8%	2.5%	1.3%	0.67	0.51
51 - Information	3,028,274	89,258	3,119	2.7%	3.2%	2.7%	1.19	0.86
Financial Activities	8,144,680	221,608	4,755	7.1%	7.8%	4.1%	1.10	0.53
52 - Finance and Insurance	5,992,144	179,231	3,469	5.3%	6.3%	3.0%	1.20	0.48
53 - Real Estate and Rental and Leasing	2,152,536	42,378	1,286	1.9%	1.5%	1.1%	0.79	0.75
Professional and Business Services	17,864,146	487,754	19,232	15.7%	17.2%	16.8%	1.10	0.97
54 - Professional and Technical Services	7,631,158	258,622	9,597	6.7%	9.1%	8.4%	1.36	0.92
55 - Management of Companies and Enterprises	1,839,929	61,461	1,970	1.6%	2.2%	1.7%	1.35	0.79
56 - Administrative and Waste Services	8,393,060	167,671	7,666	7.4%	5.9%	6.7%	0.80	1.13
Education and Health Services	17,428,926	604,912	22,367	15.3%	21.4%	19.5%	1.40	0.91
61 - Educational Services, Private	2,284,111	125,681	2,600	2.0%	4.4%	2.3%	2.22	0.51
62 - Health Care and Social Assistance	15,144,814	479,231	19,766	13.3%	16.9%	17.2%	1.27	1.02
Leisure and Hospitality	13,327,039	306,132	11,015	11.7%	10.8%	9.6%	0.92	0.89
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	2,059	1.7%	1.7%	1.8%	1.02	1.03
72 - Accommodation and Food Services	11,373,174	256,878	8,956	10.0%	9.1%	7.8%	0.91	0.86
81 - Other Services, Except Public Admin	4,437,318	128,977	5,083	3.9%	4.6%	4.4%	1.17	0.97

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Metro North Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Metro North	U.S.	Mass.	Metro North	Mass.	Metro North
Total, All Industries, Private	114,014,680	2,831,460	346,537	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	57	1.0%	0.2%	INA	0.22	INA
23 - Construction	7,562,373	132,725	15,973	6.6%	4.7%	4.6%	0.71	0.98
31-33 - Manufacturing	13,834,745	286,458	27,873	12.1%	10.1%	8.0%	0.83	0.80
Trade, Transportation and Utilities	26,334,681	565,860	66,591	23.1%	20.0%	19.2%	0.87	0.96
22 - Utilities	549,560	10,030	625	0.5%	0.4%	0.2%	0.73	0.51
42 - Wholesale Trade	5,985,704	136,527	18,329	5.2%	4.8%	5.3%	0.92	1.10
44-45 - Retail Trade	15,507,891	347,873	38,354	13.6%	12.3%	11.1%	0.90	0.90
48-49 - Transportation and Warehousing	4,291,526	71,430	9,283	3.8%	2.5%	2.7%	0.67	1.06
51 - Information	3,028,274	89,258	15,302	2.7%	3.2%	4.4%	1.19	1.40
Financial Activities	8,144,680	221,608	17,664	7.1%	7.8%	5.1%	1.10	0.65
52 - Finance and Insurance	5,992,144	179,231	13,352	5.3%	6.3%	3.9%	1.20	0.61
53 - Real Estate and Rental and Leasing	2,152,536	42,378	4,311	1.9%	1.5%	1.2%	0.79	0.83
Professional and Business Services	17,864,146	487,754	79,810	15.7%	17.2%	23.0%	1.10	1.34
54 - Professional and Technical Services	7,631,158	258,622	50,350	6.7%	9.1%	14.5%	1.36	1.59
55 - Management of Companies and Enterprises	1,839,929	61,461	6,731	1.6%	2.2%	1.9%	1.35	0.89
56 - Administrative and Waste Services	8,393,060	167,671	22,729	7.4%	5.9%	6.6%	0.80	1.11
Education and Health Services	17,428,926	604,912	79,901	15.3%	21.4%	23.1%	1.40	1.08
61 - Educational Services, Private	2,284,111	125,681	32,817	2.0%	4.4%	9.5%	2.22	2.13
62 - Health Care and Social Assistance	15,144,814	479,231	47,084	13.3%	16.9%	13.6%	1.27	0.80
Leisure and Hospitality	13,327,039	306,132	29,134	11.7%	10.8%	8.4%	0.92	0.78
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	3,219	1.7%	1.7%	0.9%	1.02	0.53
72 - Accommodation and Food Services	11,373,174	256,878	25,915	10.0%	9.1%	7.5%	0.91	0.82
81 - Other Services, Except Public Admin	4,437,318	128,977	13,287	3.9%	4.6%	3.8%	1.17	0.84

*An explanation of the definition, calculation, uses, and interpretation of location quotients is found immediately following this page

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and Metro South/West Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	Metro S/W	U.S.	Mass.	Metro S/W	Mass.	Metro S/W
Total, All Industries, Private	114,014,680	2,831,460	478,058	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	842	1.0%	0.2%	0.2%	0.22	0.77
23 - Construction	7,562,373	132,725	22,311	6.6%	4.7%	4.7%	0.71	1.00
31-33 - Manufacturing	13,834,745	286,458	55,622	12.1%	10.1%	11.6%	0.83	1.15
Trade, Transportation and Utilities	26,334,681	565,860	93,516	23.1%	20.0%	19.6%	0.87	0.98
22 - Utilities	549,560	10,030	901	0.5%	0.4%	0.2%	0.73	0.53
42 - Wholesale Trade	5,985,704	136,527	30,329	5.2%	4.8%	6.3%	0.92	1.32
44-45 - Retail Trade	15,507,891	347,873	55,853	13.6%	12.3%	11.7%	0.90	0.95
48-49 - Transportation and Warehousing	4,291,526	71,430	6,433	3.8%	2.5%	1.3%	0.67	0.53
51 - Information	3,028,274	89,258	23,648	2.7%	3.2%	4.9%	1.19	1.57
Financial Activities	8,144,680	221,608	28,536	7.1%	7.8%	6.0%	1.10	0.76
52 - Finance and Insurance	5,992,144	179,231	21,397	5.3%	6.3%	4.5%	1.20	0.71
53 - Real Estate and Rental and Leasing	2,152,536	42,378	7,140	1.9%	1.5%	1.5%	0.79	1.00
Professional and Business Services	17,864,146	487,754	115,521	15.7%	17.2%	24.2%	1.10	1.40
54 - Professional and Technical Services	7,631,158	258,622	66,643	6.7%	9.1%	13.9%	1.36	1.53
55 - Management of Companies and Enterprises	1,839,929	61,461	21,146	1.6%	2.2%	4.4%	1.35	2.04
56 - Administrative and Waste Services	8,393,060	167,671	27,732	7.4%	5.9%	5.8%	0.80	0.98
Education and Health Services	17,428,926	604,912	77,641	15.3%	21.4%	16.2%	1.40	0.76
61 - Educational Services, Private	2,284,111	125,681	22,464	2.0%	4.4%	4.7%	2.22	1.06
62 - Health Care and Social Assistance	15,144,814	479,231	55,177	13.3%	16.9%	11.5%	1.27	0.68
Leisure and Hospitality	13,327,039	306,132	44,297	11.7%	10.8%	9.3%	0.92	0.86
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	9,296	1.7%	1.7%	1.9%	1.02	1.12
72 - Accommodation and Food Services	11,373,174	256,878	35,002	10.0%	9.1%	7.3%	0.91	0.81
81 - Other Services, Except Public Admin	4,437,318	128,977	15,918	3.9%	4.6%	3.3%	1.17	0.73

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and North Central Mass. Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	No. Central	U.S.	Mass.	No. Central	Mass.	No. Central
Total, All Industries, Private	114,014,680	2,831,460	66,381	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	332	1.0%	0.2%	0.5%	0.22	2.18
23 - Construction	7,562,373	132,725	3,581	6.6%	4.7%	5.4%	0.71	1.15
31-33 - Manufacturing	13,834,745	286,458	15,035	12.1%	10.1%	22.6%	0.83	2.24
Trade, Transportation and Utilities	26,334,681	565,860	15,039	23.1%	20.0%	22.7%	0.87	1.13
22 - Utilities	549,560	10,030	191	0.5%	0.4%	0.3%	0.73	0.81
42 - Wholesale Trade	5,985,704	136,527	2,307	5.2%	4.8%	3.5%	0.92	0.72
44-45 - Retail Trade	15,507,891	347,873	10,706	13.6%	12.3%	16.1%	0.90	1.31
48-49 - Transportation and Warehousing	4,291,526	71,430	1,834	3.8%	2.5%	2.8%	0.67	1.10
51 - Information	3,028,274	89,258	856	2.7%	3.2%	1.3%	1.19	0.41
Financial Activities	8,144,680	221,608	2,315	7.1%	7.8%	3.5%	1.10	0.45
52 - Finance and Insurance	5,992,144	179,231	1,600	5.3%	6.3%	2.4%	1.20	0.38
53 - Real Estate and Rental and Leasing	2,152,536	42,378	715	1.9%	1.5%	1.1%	0.79	0.72
Professional and Business Services	17,864,146	487,754	6,543	15.7%	17.2%	9.9%	1.10	0.57
54 - Professional and Technical Services	7,631,158	258,622	2,448	6.7%	9.1%	3.7%	1.36	0.40
55 - Management of Companies and Enterprises	1,839,929	61,461	839	1.6%	2.2%	1.3%	1.35	0.58
56 - Administrative and Waste Services	8,393,060	167,671	3,257	7.4%	5.9%	4.9%	0.80	0.83
Education and Health Services	17,428,926	604,912	12,730	15.3%	21.4%	19.2%	1.40	0.90
61 - Educational Services, Private	2,284,111	125,681	1,786	2.0%	4.4%	2.7%	2.22	0.61
62 - Health Care and Social Assistance	15,144,814	479,231	10,944	13.3%	16.9%	16.5%	1.27	0.97
Leisure and Hospitality	13,327,039	306,132	7,619	11.7%	10.8%	11.5%	0.92	1.06
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,487	1.7%	1.7%	2.2%	1.02	1.29
72 - Accommodation and Food Services	11,373,174	256,878	6,132	10.0%	9.1%	9.2%	0.91	1.02
81 - Other Services, Except Public Admin	4,437,318	128,977	2,272	3.9%	4.6%	3.4%	1.17	0.75

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

**Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and North Shore Workforce Area
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	No. Shore	U.S.	Mass.	No. Shore	Mass.	No. Shore
Total, All Industries, Private	114,014,680	2,831,460	145,157	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	458	1.0%	0.2%	0.3%	0.22	1.37
23 - Construction	7,562,373	132,725	6,596	6.6%	4.7%	4.5%	0.71	0.97
31-33 - Manufacturing	13,834,745	286,458	19,257	12.1%	10.1%	13.3%	0.83	1.31
Trade, Transportation and Utilities	26,334,681	565,860	34,453	23.1%	20.0%	23.7%	0.87	1.19
22 - Utilities	549,560	10,030	434	0.5%	0.4%	0.3%	0.73	0.84
42 - Wholesale Trade	5,985,704	136,527	6,061	5.2%	4.8%	4.2%	0.92	0.87
44-45 - Retail Trade	15,507,891	347,873	25,702	13.6%	12.3%	17.7%	0.90	1.44
48-49 - Transportation and Warehousing	4,291,526	71,430	2,256	3.8%	2.5%	1.6%	0.67	0.62
51 - Information	3,028,274	89,258	2,988	2.7%	3.2%	2.1%	1.19	0.65
Financial Activities	8,144,680	221,608	8,161	7.1%	7.8%	5.6%	1.10	0.72
52 - Finance and Insurance	5,992,144	179,231	6,011	5.3%	6.3%	4.1%	1.20	0.65
53 - Real Estate and Rental and Leasing	2,152,536	42,378	2,150	1.9%	1.5%	1.5%	0.79	0.99
Professional and Business Services	17,864,146	487,754	16,880	15.7%	17.2%	11.6%	1.10	0.68
54 - Professional and Technical Services	7,631,158	258,622	7,975	6.7%	9.1%	5.5%	1.36	0.60
55 - Management of Companies and Enterprises	1,839,929	61,461	1,743	1.6%	2.2%	1.2%	1.35	0.55
56 - Administrative and Waste Services	8,393,060	167,671	7,162	7.4%	5.9%	4.9%	0.80	0.83
Education and Health Services	17,428,926	604,912	30,604	15.3%	21.4%	21.1%	1.40	0.99
61 - Educational Services, Private	2,284,111	125,681	3,032	2.0%	4.4%	2.1%	2.22	0.47
62 - Health Care and Social Assistance	15,144,814	479,231	27,572	13.3%	16.9%	19.0%	1.27	1.12
Leisure and Hospitality	13,327,039	306,132	18,414	11.7%	10.8%	12.7%	0.92	1.17
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	3,211	1.7%	1.7%	2.2%	1.02	1.27
72 - Accommodation and Food Services	11,373,174	256,878	15,203	10.0%	9.1%	10.5%	0.91	1.15
81 - Other Services, Except Public Admin	4,437,318	128,977	7,296	3.9%	4.6%	5.0%	1.17	1.10

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Source: QCEW (Quarterly Census of Employment and Wages) ES-202

Prepared by Massachusetts Department of Workforce Development, Division of Career Services, Economic Analysis Office

Employment Shares and Location Quotients by Major Industry Sector
U.S., Massachusetts and South Coastal Workforce Area
2008 Annual Average Private Employment

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	So. Coastal	U.S.	Mass.	So. Coastal	Mass.	So. Coastal
Total, All Industries, Private	114,014,680	2,831,460	184,764	100.0%	100.0%	100.0%	1.00	1.00
11 - Agriculture, Forestry, Fishing and Hunting	1,166,745	6,508	262	1.0%	0.2%	0.1%	0.22	0.62
23 - Construction	7,562,373	132,725	12,325	6.6%	4.7%	6.7%	0.71	1.42
31-33 - Manufacturing	13,834,745	286,458	11,052	12.1%	10.1%	6.0%	0.83	0.59
Trade, Transportation and Utilities	26,334,681	565,860	40,794	23.1%	20.0%	22.1%	0.87	1.10
22 - Utilities	549,560	10,030	1,013	0.5%	0.4%	0.5%	0.73	1.55
42 - Wholesale Trade	5,985,704	136,527	7,687	5.2%	4.8%	4.2%	0.92	0.86
44-45 - Retail Trade	15,507,891	347,873	29,142	13.6%	12.3%	15.8%	0.90	1.28
48-49 - Transportation and Warehousing	4,291,526	71,430	2,953	3.8%	2.5%	1.6%	0.67	0.63
51 - Information	3,028,274	89,258	4,447	2.7%	3.2%	2.4%	1.19	0.76
Financial Activities	8,144,680	221,608	22,448	7.1%	7.8%	12.1%	1.10	1.55
52 - Finance and Insurance	5,992,144	179,231	19,027	5.3%	6.3%	10.3%	1.20	1.63
53 - Real Estate and Rental and Leasing	2,152,536	42,378	3,421	1.9%	1.5%	1.9%	0.79	1.24
Professional and Business Services	17,864,146	487,754	25,382	15.7%	17.2%	13.7%	1.10	0.80
54 - Professional and Technical Services	7,631,158	258,622	10,307	6.7%	9.1%	5.6%	1.36	0.61
55 - Management of Companies and Enterprises	1,839,929	61,461	4,677	1.6%	2.2%	2.5%	1.35	1.17
56 - Administrative and Waste Services	8,393,060	167,671	10,398	7.4%	5.9%	5.6%	0.80	0.95
Education and Health Services	17,428,926	604,912	33,812	15.3%	21.4%	18.3%	1.40	0.86
61 - Educational Services, Private	2,284,111	125,681	3,439	2.0%	4.4%	1.9%	2.22	0.42
62 - Health Care and Social Assistance	15,144,814	479,231	30,373	13.3%	16.9%	16.4%	1.27	0.97
Leisure and Hospitality	13,327,039	306,132	22,593	11.7%	10.8%	12.2%	0.92	1.13
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	4,001	1.7%	1.7%	2.2%	1.02	1.24
72 - Accommodation and Food Services	11,373,174	256,878	18,592	10.0%	9.1%	10.1%	0.91	1.11
81 - Other Services, Except Public Admin	4,437,318	128,977	11,485	3.9%	4.6%	6.2%	1.17	1.36

*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

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