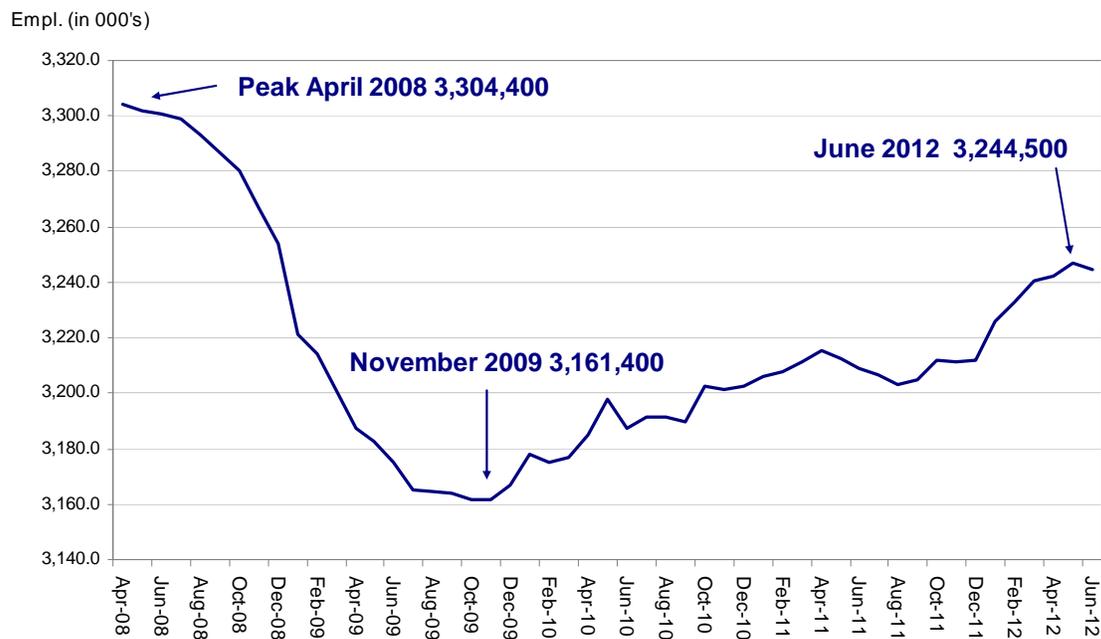


Analysis of the Massachusetts Workforce

The most recent jobs and unemployment rate estimates show the Commonwealth's progress in the recovery of jobs lost during the recession and the drop in the unemployment rate and the number of unemployed residents.

As of June 2012, according to the Current Employment Statistics, Massachusetts had recovered 83,100 jobs, or 58 percent, of the 143,000 jobs lost from January 2008 through November 2009 (Chart 1). All sectors have not shared in the jobs recovery leaving a gap in the demand for the types of jobs that are available compared to the labor supply of those seeking work. However, the economic recovery has provided income to workers and their families. The long duration of unemployment has created hardships for those who cannot find work and thus a need for new methods, tools, and information for the workforce system to provide assistance in employability and training.

Chart 1: MASSACHUSETTS JOBS TRENDS 2008-2012



Source: BLS CES

Massachusetts has recovered 83,100 jobs since the employment low point of November 2009; however, these gains have not been equally distributed among the many sectors in the economy.

Four sectors have been the engine of job growth, namely the Professional, Scientific and Business Services; Trade, Transportation & Utilities; Education & Health Services; and Leisure & Hospitality sectors. Although modest job recovery has occurred in Manufacturing and Other Services, the Financial Activities and Construction sectors have yet to share in the recovery.

Professional, Scientific and Business Services sector is the State's leader in job recovery, accounting for 45 percent of all jobs recovered since the low point of November 2009. The Education & Health Services sector did not lose any jobs during the recession, the result of job growth in Health Care and Social Services. The Trade, Transportation, & Utilities sector has also regained a sizeable number of jobs led by growth in the Retail Trade component. Leisure and Hospitality jobs have been driven by gains in Accommodation and Food Services. Manufacturing jobs have come back, relative to where they were in November 2009, up 2,400 jobs due to job recovery in Durable Goods. With the recovery of employment in the above industries, a picture emerges of the diversity in employment trends and today's jobs.

Labor Force and Unemployment Trends

The June 2012 total unemployment rate of 6.0 percent reflects an increase of 96,300 more employed Massachusetts residents and 94,900 fewer residents unemployed since the recession's November 2009 high 8.7 percent unemployment rate. At June's 6.0 percent unemployment rate, considered full employment by some economists, there remain over 200,000 unemployed residents seeking jobs, which is above the pre-recession level. The rate at which residents participate in the labor force has also declined since the beginning of the recession. The drop in the labor force participation rate means that many residents who previously participated in the labor force are no longer seeking work and may not have confidence that there are jobs available that align to their experience and skills. Alternative unemployment rates, that include estimates for discouraged workers, indicate substantially higher numbers of residents than those counted in the headline unemployment rate who may need workforce services to obtain employment.

Estimates of the educational level for residents age 25 and older during the twelve month period ending June 2012 show an unemployment rate of 3.5 percent for residents with a bachelor's degree or higher, significantly lower than the statewide average unemployment rate of 6.8 percent. The estimates also show that the recession had a greater impact on residents with less than a high school diploma and for those with less than a high school diploma.

The 2011 median wage by educational attainment, obtained from the MA Occupational Employment and Wage Statistics program, and their respective twelve month average total unemployment rates are displayed on Chart 2 below.

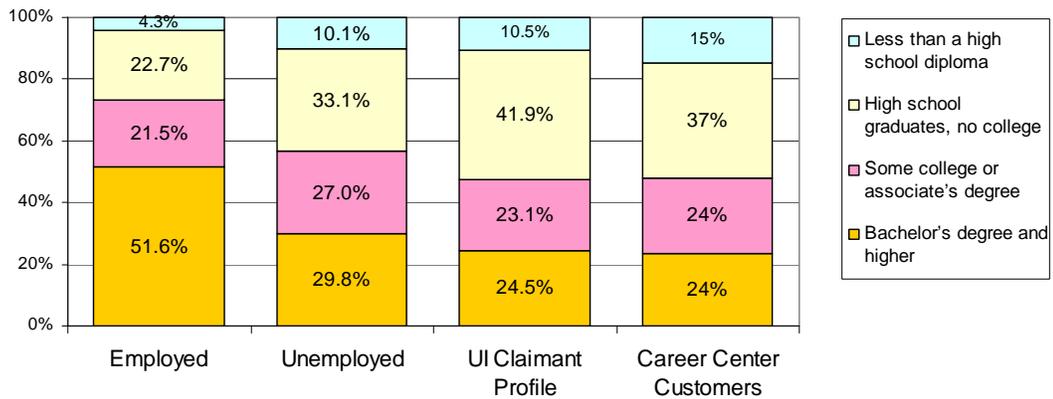
Chart 2: Unemployment Rates and Wages by Education Attainment Level

Education Attainment Level	Unemployment Rate	Median Wage
Bachelor's degree or higher	3.5%	\$80,611
Some college or Associate's Degree	7.4%	\$61,522
High School graduates, no College	8.1%	\$42,863
Less than a High School diploma	13.2%	\$24,545

Source: BLS; Massachusetts Occupational Employment Statistics

Chart 3 below compares the educational attainment levels of those employed and unemployed based on the U.S. Bureau of Labor Statistics (BLS) data compared to those who were claiming regular unemployment insurance (UI) benefits and individuals receiving job assistance services at the State's thirty-four One-Stop Career Centers. On average, 42 percent of UI claimants during the twelve months ending June 2012 were high school graduates, while another 10.5 percent had less than a high school diploma. Thus, a total of 52.5 percent of UI claimants on average have the educational attainment level of a high school diploma or less.

Distribution of Employed and Unemployed MA Residents, UI Claimants and Career Center Customers by Educational Attainment
July 2011 - June 2012



Sources: BLS; MA DUA; MA DCS

For more than half of our UI claimants looking for work, their educational attainment falls below the necessary education and skill levels to apply for the types of jobs created in the two leading sectors that have generated the greatest share of new jobs post-recession and are projected to grow more than any other sectors, Education and Health Services and Professional, Scientific and Business Services.

The BLS estimates for employed residents age 25 and older shows, for the twelve month period ending June 2012, that for residents with less than a high school diploma there are 121,000 employed or 29,000 fewer than before the recession; for those with a high school diploma, 56,000 fewer residents are employed than before the recession; for residents with some college or an Associate's degree the number employed 607,000 is slightly less than it was in 2010, but 19,000 more than prior to the recession. With 1,457,000, or 52 percent, of the employed residents having Bachelor's degree or higher, the number of employed residents is 65,000 higher than before the recession, reflective of the importance of education.

The projected annual openings for all jobs show 23 percent of the openings require less than a high school degree, 36 percent require a minimum of a high school diploma, 12 percent require some college or associates degree, and 29 percent require a minimum of Bachelor's degree or higher. These data further

demonstrate the need for job assistance and training for many of the unemployed who may not have educational levels to meet the demands of the job market.

One of every two UI claimants eligible for and receiving UI benefits are not permanently separated from a job. These claimants are more likely to have seasonal employment, maybe working part-time and or work multiple jobs throughout the year with intermittent spells of unemployment. The distribution of all claimants by occupations also shows that many worked in an occupation with minimum requirements of a high school diploma. Educational attainment does not guarantee employment for college graduates, including recent graduates. However, it does provide a window into the scope of the challenges for the workforce system in assessing supply/demand issues and in providing reemployment and training services.

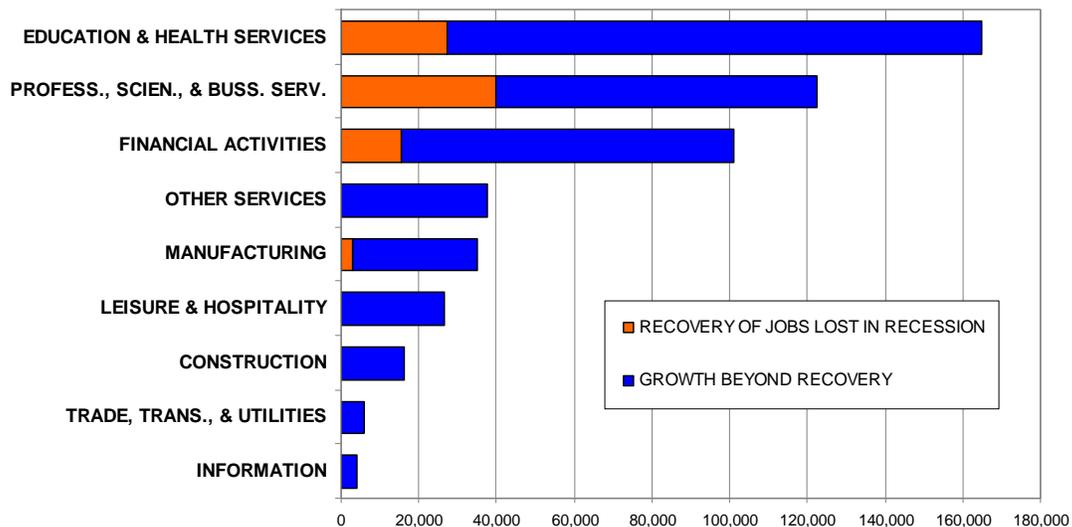
The share of claimants with a high school degree or less is below that of the pre-recession level, indicating some who have lost jobs may have dropped out of the labor force. The average wage prior to filing for unemployment insurance benefits is also lower than before the recession as many seasonal workers and others had both lower job attachment and lower earnings before their current separation. A larger share of the current claimants was separated from jobs in construction, manufacturing and office support occupations than before the recession.

What is the outlook for jobs in Massachusetts?

Based on the 2010 to 2020 projections for jobs (Chart 4), the largest numbers of new jobs will be in Education and Health Services; Professional and Business Services; Financial Activities; Other Services and Manufacturing sectors.

What is the occupational outlook in Massachusetts?

Chart 4: Projected Employment Change By Sector 2010 - 2020

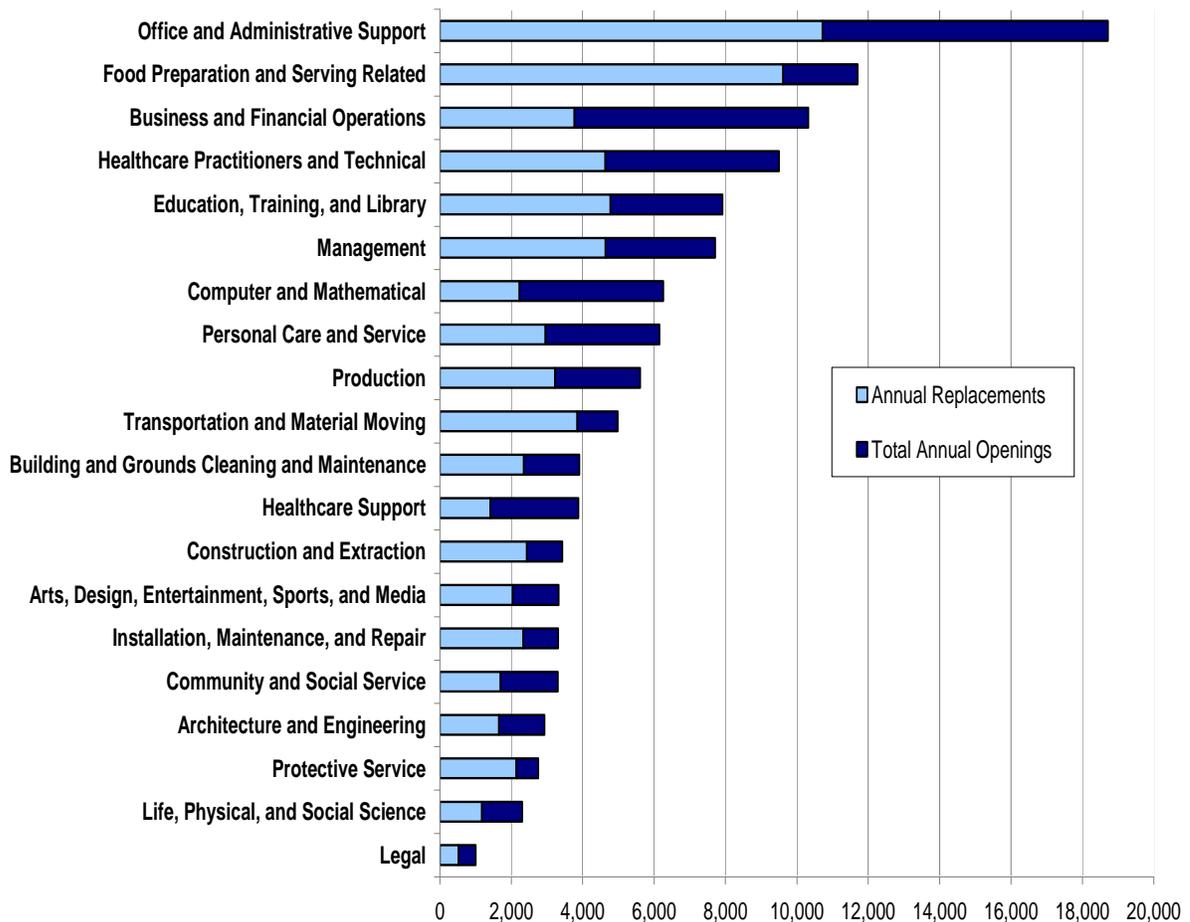


Source: MA EOLWD

The 2010 to 2020 occupational projections for Massachusetts estimate annual job openings of just over 130,000, a rate of four percent at current employment levels. On average, 57 percent of the openings will be due to replacement, vacancies created by turnover due to leaving jobs for various reasons including retirement. The remaining projected openings are due to growth.

Chart 5 below provides information on expected total annual openings including replacements by *occupational* grouping.

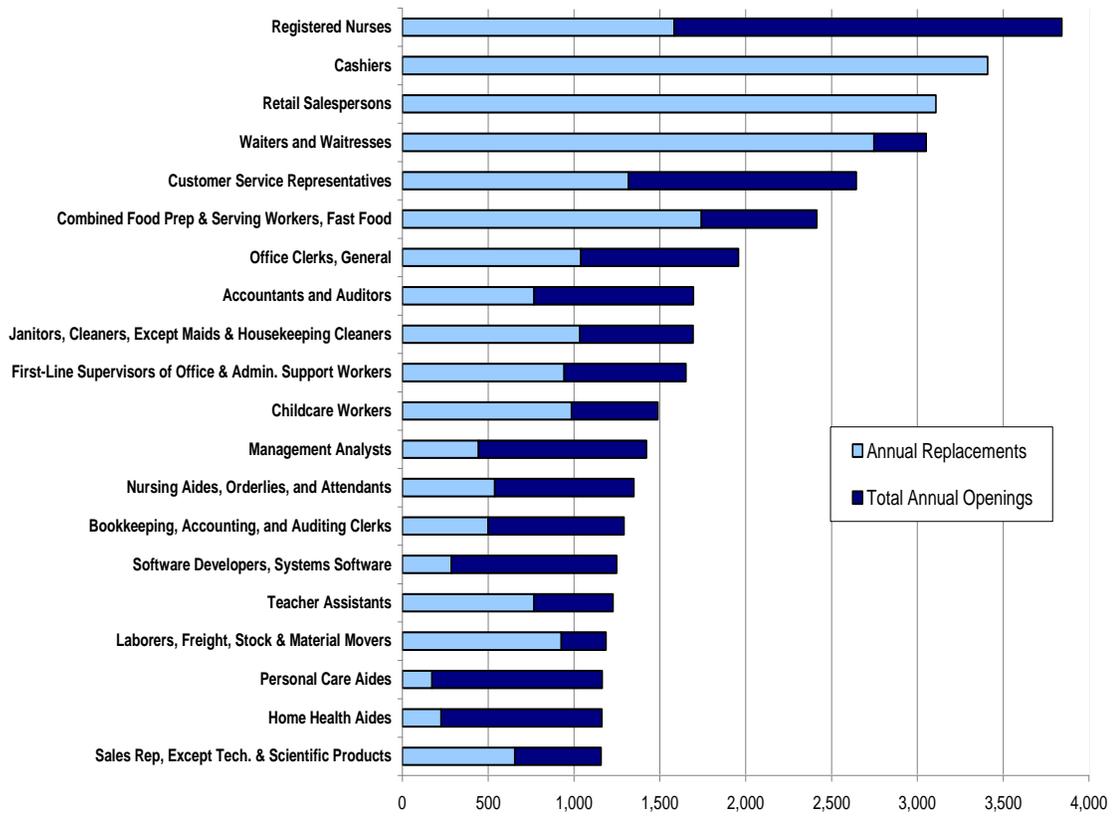
Chart 5: Projected Annual Openings by Occupational Group



Source: MA Occupational Projections

Chart 6 demonstrates that at the detailed occupational level, the largest numbers of openings are for Registered Nurses, Cashiers, Retail Salespersons Waiters and Waitresses, Customer Services Representatives.

Chart 6: Top 20 Annual Openings by Occupation



Source: MA Occupational Projections

The Cashier occupation suggests less of a skill demand. All of the job openings are created through annual replacements and a review of the existing supply of workers (Chart 8) suggests a current “oversupply” of workers in this occupation (Cashiers). Retail occupations show a slight demand for workers with all future openings created through replacements. Thus, the large number of projected job openings for these relatively low-skilled occupations does not signal a “skill gap” issue, but provides for entry-level employment in the economy. Occupations such as Registered Nurses, computer related occupations, and others reflect the need for more workers with these certifications or licenses and suggest necessary workforce policy to address these skill demands.

Massachusetts Skill Needs

To determine the demand for the skills in the economy, a match of UI claimants¹ (labor supply) at the detailed Standard Occupational Classification (SOC) titles was made against the Help Wanted On Line (HWOL) on-line job openings (labor

¹ When filing an unemployment insurance (UI) claim, the UI claimant self-identifies the occupation in which they worked prior to separation from their most recent employment. Based on this identification, a six-digit Standard Occupational Code (SOC) is assigned to the claimant.

demand) posted from mid-May through mid-June 2012. For this match, the number of claimants statewide certifying their eligibility for UI benefits, defined as unemployed, able to work, available to work and actively seeking work during the week ending June 16, 2012 for the regular and EUC programs, were matched to the number of openings during the same period.

Comparing the UI claimants to the *top 10 occupations with the highest number of HWOL on-line job openings*, three of the occupations with the strongest demand for workers are computer related -- Computer Specialists, Computer Software Engineers and Computer System Analysts. For these three computer-related occupations the ratio of claimants to openings ranges from 7.3 to 10.6 and the total job postings outnumber UI claims by 8.7 to 1. Additionally there is a strong demand for Registered Nurses with a ratio of 7.4 openings to each claimant. As noted in the chart below there is also demand for Retail Salespersons, First-Line Supervisors/ Managers of Retail sales Persons, Licensed Truck Drivers, and First-Line Supervisors/ Managers of Food Preparation Workers. The numbers of openings reflect the diversity of the jobs and skills in demand for the ten occupations with the greatest number of current openings in Massachusetts.

Chart 7: Top Ten Occupations in Demand in Mid-June 2012

Occupation	UI Claimants (supply)	HWOL Job Postings (demand)	Ratio (demand/ supply)	Strength of Demand for Workers
Registered Nurses	1,058	7,847	7.4	Strong
Retail Salespersons	3,533	5,531	1.6	Slight
First-Line Supervisors/Managers of Retail Sales Workers	1,213	4,417	3.6	Moderate
Computer Specialists, All Other	477	4,194	8.8	Strong
Computer Software Engineers, Applications	551	4,012	7.3	Strong
Computer Systems Analysts	359	3,802	10.6	Strong
Executive Secretaries and Administrative Assistants	2,556	3,596	1.4	Slight
Customer Service Representatives	3,914	3,471	0.9	Over Supply
Truck Drivers, Heavy and Tractor-Trailer	1,413	3,332	2.4	Moderate
First-Line Supervisors/Managers of Food Preparation and Serving Workers	482	3,152	6.5	Strong

Source: HWOL; MA DUA

When HWOL job openings are compared to the *largest number of claimants* by occupation, the top ten occupations show Construction Laborers have the hardest time finding work in their previous occupation with one job opening for every seven claimants. Likewise, a similar situation exists for Helpers-Production Workers, where claimants outnumber job postings six to one.

By occupation, the most UI claimants are General and Operations Managers where there are three claimants per job posting. For Retail Salespersons, the number of job postings exceeds the number of claims. Furthermore, this occupation is in the top ten that are high demand and high supply. In general, individuals with work histories in “over supply” occupations need consider career counseling and potential retraining services to most effectively integrate back into the job market.

Chart 8: Top Ten Occupations by Supply in Mid-June 2012

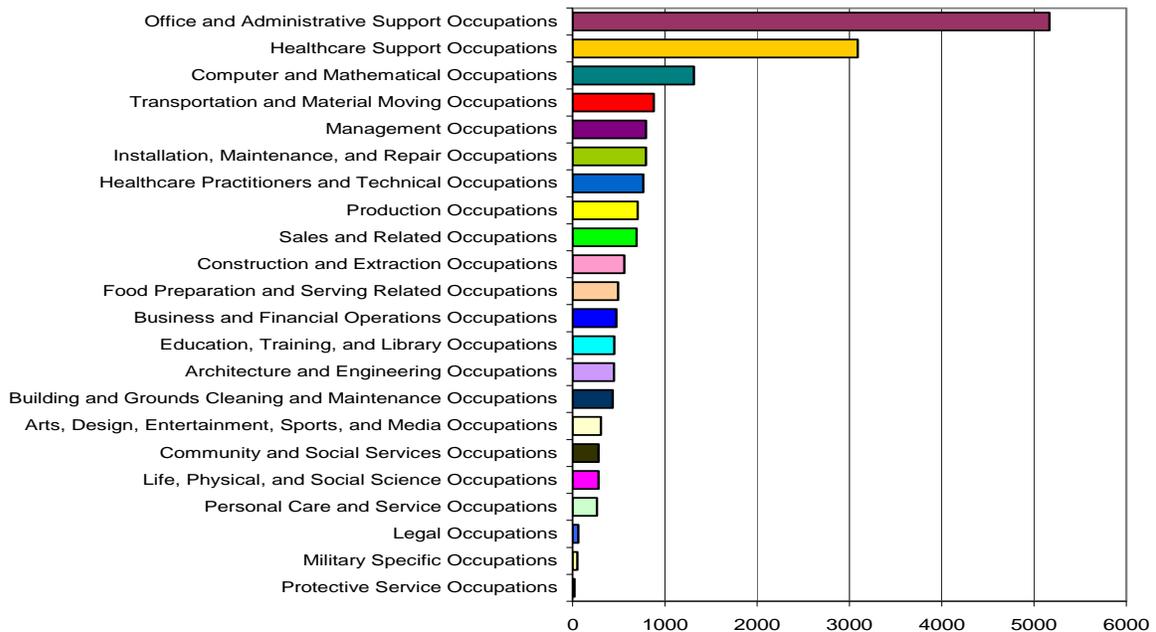
Occupation	UI Claimants (supply)	HWOL Job Postings (demand)	Ratio (supply /demand)	Level of Supply for Workers
General and Operations Managers	5,007	1,570	3.2	Oversupply
Customer Service Reps	3,914	3,471	1.1	Slight Oversupply
Construction Laborers	3,913	583	6.7	Oversupply
Retail Salespersons	3,533	5,531	0.6	Under supply
Helpers--Production Workers	2,781	479	5.8	Oversupply*
Carpenters	2,559	747	3.4	Oversupply
Exec Secretaries and Administrative Assistants	2,556	3,596	0.7	Under Supply
Personal and Home Care Aides	2,244	938	2.4	Oversupply
Cashiers	2,090	499	4.2	Oversupply
Sales Representatives	1,978	2,315	0.9	Under supply

Source: HWOL; MA DUA

**Despite a general oversupply of production workers, within more specific production occupations, employers report a shortage of advanced manufacturing workers with highly developed math, software and technical skills related to proprietary equipment.*

The occupations in which One-Stop Career Center customers are being trained closely parallel the job openings projections and occupations with demand for workers displayed in Charts 4, 7 and 8. Data show that customers who are in need of training and who receive training support through workforce grants have higher rates of employment than those who do not receive this assistance. The state is committed to increase investments in training and education. With expanded tools the Local Workforce Investment Boards will be able to use these data to match claimants and other job seekers to job opportunities and to training services in high growth sectors.

Chart 9: Massachusetts Training Enrollments by Occupational Group



Source: MA DCS

With expanded tools, the Local Workforce Investment Boards will be able to use these data to match claimants and other job seekers they are assisting in their job search and training services. At the LWIB area, both supply and demand may tell a different story than the statewide examples displayed above.

Accessing Real-time Job Openings

One of the most common methods for obtaining work is through the Internet. Access to real time job vacancies is available through various services and websites including the Commonwealth’s JobQuest which currently provides 24/7/365 access to 40,000 job openings.

The Conference Board Help Wanted On Line (HWOL) publishes monthly data on the number of on-line job openings, a measure of demand, and an index that computes supply/demand ratios using State BLS estimates of number unemployed for labor supply. Seasonally adjusted, the June 2012 statewide supply/demand index was 1.4. With one plus workers for every opening, Massachusetts has the next to lowest ratio of the twenty largest states. The national ratio was 2.6.

Using the HWOL data not adjusted for seasonality as supply and the numbers of UI claimants at major occupational groups for demand, the supply/demand ratios show high “supply” rates for the Construction and Extraction Occupations, 10.9 claimants for every posting, and for Production Occupations, 7.4 claimants per posting. However, demand far exceeds supply for the Computer and Mathematical Occupations with 4 job openings for each claimant. Two additional

occupational groups, Life, Physical and Social Sciences, and Healthcare, also show greater demand than supply of claimants.

Utilizing new tools and services, the workforce system can broaden the services available to assist the current over-supply of unemployed claimants from declining industries and occupations. In addition, it will allow these claimants to explore alternative occupations that are in demand and are also align to the individual's skill set.

Using TORQ, an on-line tool available to counselors in the Commonwealth's One-Stop Career Centers, career counselors can match a customer's skills and qualifications against the on-line job openings in the National Labor Exchange, which includes all of the openings in the Commonwealth's JobQuest. For example, counselors can assist a claimant who is a carpenter to identify alternate occupations that compliment his or her skill set and identify and isolate the additional skills needed for a specific job opening. Running a match for "carpenter" through TORQ produced eighteen additional occupations that utilize similar skill sets. Searching HWOL for current openings in these eighteen occupations generated a total of 213 available jobs throughout the state.

Massachusetts is considering reinstating a contract to add additional job openings into JobQuest through a "real time" system. Expanding the job orders in Job-Quest to include those from an on-line service would greatly increase the numbers of openings and provide additional means to filter orders to meet the demands of job seekers. Layering TORQ on top of the expanded JobQuest system, along with information on occupations in demand from recent projections and vacancies from the statewide Job Vacancy Survey, provides workforce agencies and staff state of the art workforce information, tools and products to assist job seekers and improve reemployment opportunities for unemployed and underemployed in Massachusetts.