

***Hot Jobs, Good Wages:
How to Live, Work and Thrive in Massachusetts***

By

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About Crittenton Women's Union

Crittenton Women's Union transforms the course of low-income women's lives so that they can attain economic independence and create better lives for themselves and their families. We accomplish this by:

- Providing safe housing, caring supports, education and training programs;
- Innovating new programmatic designs based on research and client experience;
- Using this knowledge and experience to shape public policy and achieve social change.

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Executive Summary

Overview

The purpose of this report is to identify *Hot Jobs* in Massachusetts: i.e., high-demand occupations that require two years (or less) of education and meet the 2006 Family Economic Self-Sufficiency Standard (FESS). The Standard provides an accurate measure of the costs to live in Massachusetts, and thus offers a gauge to determine family-sustaining wages. The report details key considerations about these *Hot Jobs* so that workforce planners can make informed decisions about investments in education and training programs.

Methodology

To determine the 26 *Hot Jobs* listed in this report, we used job vacancy data in order to ascertain the most accurate picture of current demand. To identify as many opportunities as possible, we used the 75th percentile of wages and salaries (instead of the median). After exploring economic and labor market trends, we examined issues of educational requirements, gender composition, and general concerns regarding certain occupations.

Key Considerations

- Ten of the twenty-six occupations are non-traditional for women; an additional five are majority male. Talking to educators and employers to both gauge their openness to, and educate them on, the importance of expanding opportunities for women, could go a long way toward beginning to break down the gender barriers inherent to a number of *Hot Jobs*.
- More than one-quarter of the occupations require an Associate's degree, which is typically viewed as a two-year degree. However, because a high percentage of students attend school part-time due to work and childcare commitments, graduates average more than four years to complete an Associate's degree.
- Some occupations present challenges that call for innovative approaches. For example, some occupations may require a physical abilities test, which may present barriers for older workers and women. Also, the sales-related occupations are typically commission-based, a hardship for employees who require a reliable paycheck.

Conclusion

This report provides a compass to point workforce development professionals toward occupations that will both meet employer needs and employ workers at family-sustaining wages. Visit www.liveworkthrive.org/online_tools.php for more information on *Hot Jobs*.

MASSACHUSETTS HOT JOBS 2007

Administrative	Vacancies	75 th Percentile
Executive Secretaries and Administrative Assistants	1,099	\$50,670
Frontline Supervisors of Office and Administrative Workers	340	\$60,750
Legal Secretaries	114	\$54,160
Postal Service Mail Carriers	112	\$52,140
Computer		
Computer Support Specialists	310	\$65,900
Construction		
Carpenters	743	\$57,400
Plumbers, Pipefitters, and Steamfitters	440	\$69,310
Finance		
Compliance Officers	151	\$73,070
Healthcare Professionals		
Cardiovascular Technologists	69	\$58,410
Dental Hygienists	145	\$74,890
Diagnostic Medical Sonographers	91	\$73,240
Licensed Practical and Licensed Vocational Nurses	695	\$52,630
Radiologic Technologists and Technicians	239	\$67,870
Registered Nurses	4,898	\$77,660
Respiratory Therapists	128	\$56,490
Maintenance		
Bus and Truck Mechanics and Diesel Engine Specialists	107	\$50,750
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	362	\$58,100
Management		
Food Service Managers	320	\$53,200
Sales		
Frontline Supervisors/Managers of Non-Retail Sales Workers	129	\$90,780
Sales Representatives -- Wholesale and Manufacturing, Technical and Scientific Products	224	\$100,210
Sales Representatives -- Wholesale and Manufacturing, except Technical and Scientific Products	347	\$78,940
Production		
Firstline Supervisors/Managers of Production and Operating Workers	212	\$65,110
Tool and Die Makers	163	\$50,250
Protective Services		
Correctional Officers and Jailers	115	\$55,960
Firefighters	364	\$55,750
Police and Sheriff's Patrol Officers	272	\$55,720

Introduction

Identifying high wage, high demand occupations is at the crux of “demand-driven” workforce development efforts. These efforts provide employers with skilled employees and at the same time provide employees with the opportunity to improve their career prospects. However, meeting the demands of employers while providing well-paying jobs for job seekers is impacted by a precarious economic context. In particular, the 2006 Massachusetts Family Economic Self-Sufficiency Standard (FESS) revealed that costs of living have increased between 10.6% and 24.8% since 2003, depending upon family type and location. The purpose of this report is to identify high-demand occupations that meet the 2006 FESS Standard, and to detail key considerations about these *Hot Jobs* so that workforce development program planners can make informed decisions about education and training needs.

In January 2005, The Women’s Union¹ released a report, *Achieving Success in the New Economy*, which identified 25 high demand occupations that paid self-sufficient wages. Now, with the release of 2006 FESS data, the passage of major workforce legislation, and changes in the Commonwealth’s labor market, we need to examine what occupations are currently “hot” in Massachusetts. In addition to offering a detailed assessment, this study introduces a methodology that improves upon the data collected in 2005. We examine key aspects of the identified occupations, and provide insight on how gender composition, actual educational requirements, and occupational characteristics may impact the ultimate success of workforce initiatives.

As a result, this report provides a compass to point workforce development professionals toward occupations that will both meet employer needs *and* employ workers at family-sustaining wages.

The Massachusetts Economy

In the two years since the release of *Achieving Success in the New Economy*, costs of living in Massachusetts have increased. These costs are reflected in the 2006 Massachusetts Family Economic Self-Sufficiency Standard (FESS) (Pearce, 2006). The

¹ In July 2006 The Women’s Union merged with Crittenton to become Crittenton Women’s Union

Standard, first published by The Women's Union in 1998 and then updated in 2003 (Pearce and Brooke, 2003), provides an alternative to the Federal Poverty Guideline and is widely used by state agencies and nonprofit organizations in the state. Unlike the poverty line, the FESS Standard is sensitive to family size and configuration, and is adjusted by state region for cost of living. It provides an accurate picture of what it costs for a family to be self-sufficient in Massachusetts, taking into account basic living expenses such as housing, food, health care, child care, transportation, miscellaneous items (clothing, household supplies), and taxes.

The FESS Standard was updated by Crittenton Women's Union and Wider Opportunities for Women in December 2006. Table 1 below shows the Standard, as well as the percentage increase since 2003, for four cities across four family types.

TABLE 1: FESS SUMMARY SHOWING PERCENTAGE INCREASE FROM 2003-2006

	One Adult		One Adult, One Preschooler		One Adult, One Preschooler, One School-aged Child		Two Adults, One Preschooler, One School-aged Child	
	2006	Increase	2006	Increase	2006	Increase	2006	Increase
Boston	\$25,874	17.4%	\$49,797	11.5%	\$58,133	11.8%	\$62,095	12.1%
Lowell	\$25,255	20.2%	\$49,559	19.3%	\$57,384	18.1%	\$64,689	17.8%
Worcester	\$21,298	21.6%	\$41,279	17.7%	\$48,513	16.3%	\$52,246	10.6%
Springfield	\$20,360	24.8%	\$37,571	16.2%	\$46,573	21.4%	\$54,182	20.9%

Examining the family type used in the 2005 *Achieving Success in the New Economy* report, we see that costs have increased 16.3% for a family in Worcester (used as a proxy measure for a statewide average) consisting of a single parent, one preschooler, and one school-aged child. In other words, this family now needs \$48,513 to meet basic costs, as opposed to the \$40,598 needed in 2003. Thus this family needs significantly higher wages to make ends meet: \$22.97 per hour in 2006 versus \$19.22 in 2003.

But do families earn what they need to meet their basic costs? In fact, average wages grew by nearly 16%, which is above the inflation rate of 12% for that time period. However, there is a wage gap in earning power between those with a Bachelor's degree and those without, and that wage gap is growing.

TABLE 2: WAGES BY EDUCATIONAL ATTAINMENT (Massachusetts 2005)

Average wages by attainment	2001	2005	Change
Greater than or equal to a Bachelor's	\$66,426	\$78,215	17.7%
Less than a Bachelor's	\$30,816	\$34,866	13.1%
All Occupations	\$39,780	\$45,970	15.6%
Occupational Wage Source: OES			
Educational Attainment Source: DWD Occupational Projections, 2004 - 2014			

As seen in Table 2, occupations requiring a Bachelor's degree earned, on average, more than double those that did not. This is not surprising, given the number of studies that chart the gains in overall lifetime earnings derived from increased educational attainment. Individuals with a high school diploma or GED earn less than those with an Associate's degree, who in turn earn less than those with a Bachelor's degree, and so on up the educational ladder. Moreover, average wages for occupations requiring at least a Bachelor's degree grew more than one-third faster than those for occupations that did not require a Bachelor's degree.

The picture painted by rising costs and the educational wage gap points to the need to reassess high demand occupations that hold the promise of paying family-sustaining wages to individuals. Since it is not realistic for many adults to attend four-year colleges, we focus here on occupations that require two years of education or less but still pay family-sustaining wages.

Methodology and Results

In January 2005, The Women's Union released a report that identified 25 occupations that were in high demand *and* offered wages that helped workers reach economic self-sufficiency. The report, *Achieving Success in the New Economy: Which Jobs Help Women Reach Economic Self-Sufficiency in Massachusetts?* (Crandall and Jain, 2005), used the 2003 Massachusetts Family Economic Self-Sufficiency Standard (Pearce and Brooke, 2003) as a benchmark for identifying occupations paying self-sufficient wages in the state that required less than a Bachelor's degree. *Achieving Success in the New*

Economy was used as a program planning tool by workforce development and educational providers across the state.

The current report has the same objective as *Achieving Success in the New Economy* (Crandall and Jain, 2005): to identify high-demand occupations that require two years or less education, and pay at or above economic self-sufficiency wages. The methodology used in this updated report, however, varies from the original. Occupations in the current report are based on *vacancies* instead of *projections*. In the previous report, we used projection statistics obtained from the Massachusetts Department of Workforce Development's Occupational Outlook report (2000-2010) to identify occupations with 1000 or more projected total job openings. Projected employment levels are derived from Massachusetts industry projections and U.S. occupational change factors that estimate the changes in technology, productivity, and consumer tastes that are likely to affect occupational structures within industries. In other words, projection statistics serve as a "best guess" about what job openings are likely to exist in the future.

Vacancy statistics gathered from surveys of 4800 employers are used in this report as an indicator of the state of the current labor market; they are an estimate of demand, not a prediction. Vacancy data provides information on the current hiring needs of Massachusetts employers, not a projection based on assumptions that might or might not turn out to be true.

Instead of simply looking at vacancies at one point in time, however, we sought to determine "persistent" vacancies occurring over a defined time period that provide a more stable indicator of demand than just one snapshot. Persistent vacancies are defined here as either a vacancy rate of 5%, or 100 or more vacancies, existing in *two consecutive* vacancy surveys. The surveys used were the Quarter 2 and Quarter 4 Massachusetts Job Vacancy Surveys of 2005. This first "cut" of the data resulted in 204 occupations. Next, we identified those occupations that met the educational requirement (that is, all occupations with an entry requirement of less than a Bachelor's degree), leaving 127 occupations. We then removed occupations that included "all other" in their description (due to the ambiguity involved, and resulting lack of direction provided for workforce development professionals), leaving 113 occupations.

We then identified those occupations that pay at or above the selected 2006 FESS Standard. For this analysis, we used the same family type used in the previous report: a Worcester family consisting of one adult, one preschooler, and one school-aged child. This resulted in a median salary cutoff of \$48,513. This analysis identified 13 occupations, listed in Table 3 below.

TABLE 3: *HOT JOBS* USING MEDIAN SALARY

Sales Representatives -- Wholesale and Manufacturing, Technical and Scientific Products	\$71,770
Dental Hygienists	\$66,210
Diagnostic Medical Sonographers	\$66,180
Registered Nurses	\$65,040
First-Line Supervisors/Managers of Non-Retail	\$62,960
Compliance Officers	\$59,950
Radiologic Technologists and Technicians	\$58,300
Sales Representatives -- Wholesale and Manufacturing, Except Technical and Scientific Products	\$54,150
Plumbers, Pipefitters, and Steamfitters	\$51,920
First-Line Supervisors/Managers of Production and Operating Workers	\$51,730
Correctional Officers and Jailers	\$51,460
Respiratory Therapists	\$50,990
Computer Support Specialists	\$50,640

Rising costs of living contributed to fewer occupations being identified as *Hot Jobs* when compared to the 2005 methodology. While these occupations may provide the best options based on salary, they limit options for workforce development planners and job seekers alike. In order to expand options, we sorted out those occupations that paid more than the FESS Standard of \$48,513 at the *75th percentile* -- as opposed to the median salary. (“Percentile” here refers to the percentage of individuals in a given occupation who earn at or below a certain salary.) The following table (Table 4) explains the difference between median and 75th percentile salaries by using the example of Executive Secretaries/Administrative Assistants.

TABLE 4: EXAMPLE OF PERCENTILE SALARIES

Percentile	25%	50% (Median)	75%	90%
Executive Secretaries/ Administrative Assistants, Annual Salary	\$34,290	\$41,830	\$50,670	\$58,110
Explanation²	25% of employees earn less than \$34,290 annually; the remaining 75% therefore earn more than \$34,290 a year	50% earn less than \$41,830; 50% earn more than this \$41,830	75% earn less than \$50,670; 25% earn more than this \$50,670	90% earn less than \$58,110; 10% earn more than \$58,110

Keeping in mind that the FESS Standard is \$48,513, we see that Executive Secretaries and Administrative Assistants do *not* have a median (in other words, 50th percentile) salary of at least \$48,513. However, this occupation does have a *75th percentile* salary that is higher than \$48,513. Therefore, Executive Secretaries make it onto our *Hot Jobs* list.

The rationale for this change to use of 75th percentile salary in the methodology is not simply because the use of median salary resulted in a list of only 13 occupations. While the majority of incumbents in a given occupation are earning below a self-sufficient wage, promotions and tenure will eventually enable them to earn more over time. The 75th percentile salary thus serves as an eventual goal for workers, and not as an immediate expectation. Additionally, program planners may choose to target occupations within higher-paying employers or industries, or that commonly offer overtime.

The revised methodology results in a list of 26 occupations, listed below in Table 5.

² This explanation was modeled after one offered by the Bureau of Labor Statistics, found at http://www.bls.gov/oes/2003/may/oes_perc.htm

TABLE 5: *HOT JOBS* (USING 75TH PERCENTILE SALARY)

Hot Jobs	Vacancies	Educational Attainment Required	75th Percentile
Sales Representatives -- Wholesale and Manufacturing, Technical and Scientific Products	224	Moderate-term on-the-job training	\$100,210
First-Line Supervisors/Managers of Non-Retail Sales Workers	129	Work experience in a related occupation	\$90,780
Sales Representatives -- Wholesale and Manufacturing, Except Technical and Scientific Products	347	Moderate-term on-the-job training	\$78,940
Registered Nurses	4,898	Associate degree	\$77,660
Dental Hygienists	145	Associate degree	\$74,890
Diagnostic Medical Sonographers	91	Associate degree	\$73,240
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	151	Long-term on-the-job training	\$73,070
Plumbers, Pipefitters, and Steamfitters	440	Long-term on-the-job training	\$69,310
Radiologic Technologists and Technicians	239	Associate degree	\$67,870
Computer Support Specialists	310	Associate degree	\$65,900
First-Line Supervisors/Managers of Production and Operating Workers	212	Work experience in a related occupation	\$65,110
First-Line Supervisors/Managers of Office and Administrative Support Workers	340	Work experience in a related occupation	\$60,750
Cardiovascular Technologists and Technicians	69	Associate degree	\$58,410
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	362	Long-term on-the-job training	\$58,100
Carpenters	743	Long-term on-the-job training	\$57,400
Respiratory Therapists	128	Associate degree	\$56,490
Correctional Officers and Jailers	115	Moderate-term on-the-job training	\$55,960
Fire Fighters	364	Long-term on-the-job training	\$55,750
Police and Sheriff's Patrol Officers	272	Long-term on-the-job training	\$55,720
Legal Secretaries	114	Postsecondary vocational award	\$54,160
Food Service Managers	320	Work experience in a related occupation	\$53,200
Licensed Practical and Licensed Vocational Nurses	695	Postsecondary vocational award	\$52,630
Postal Service Mail Carriers	112	Short-term on-the-job training	\$52,140
Bus and Truck Mechanics and Diesel Engine Specialists	107	Postsecondary vocational award	\$50,750
Executive Secretaries and Administrative Assistants	1,099	Moderate-term on-the-job training	\$50,670
Tool and Die Makers	163	Long-term on-the-job training	\$50,250

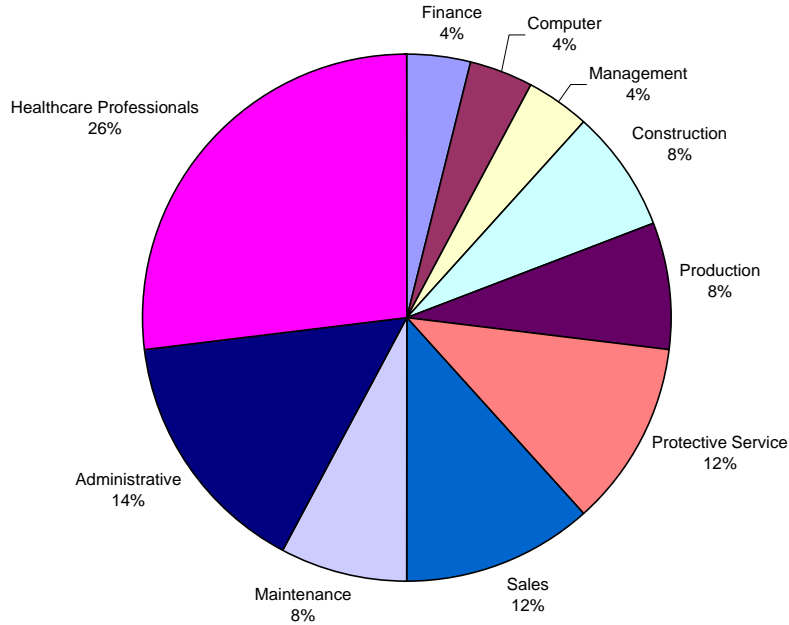
Table 5 shows the larger of the vacancy estimates for Quarters 2 and 4 from 2005 for each occupation. Registered Nurses have the highest number of vacancies on our list with almost 5000 openings. Following Nurses are Executive Secretaries with nearly 1,100 vacancies. Licensed Practical Nurses are third, with nearly 700 openings.

Regarding educational attainment, over half of all *Hot Jobs* (16 of 26) do not list any degree requirement as a necessity for attaining that particular occupation. Twelve of these 16 require “on-the-job training” that may be formal or informal instruction lasting anywhere from one month to two years. The remaining four non-degree occupations require experience in a related occupation, although requisites for that prior occupation may include some form of education or degree. Please see Appendix A for definitions of education levels.

Last, it is important to note that half (the 13 occupations highlighted in bold) of the *Hot Jobs* do *not* pay a median salary above the FESS Standard. Planners need to keep in mind that the starting salaries for a number of these occupations are not family-supporting. The hope is that while employees may enter at these wages, their potential to earn above the FESS Standard will increase with experience. Workforce development professionals should determine the eventual earning potential per occupation, and target those industries that pay more for the occupations identified here.

Chart 1 below displays the *Hot Jobs* by occupational families; slices indicate the percentage of *Hot Jobs* found in each family. Of the 22 occupational families identified by the Bureau of Labor Statistics, 10 are represented by at least one *Hot Job*. As shown in Chart 1 below, over one-quarter of all *Hot Jobs* are healthcare related. Healthcare, administrative, maintenance, sales, and protective service account for two-thirds of all occupations.

CHART 1: PERCENTAGE *HOT JOBS* BY OCCUPATIONAL FAMILY



Workforce development professionals may find it useful to consider job families because of the crossover effects that training may have. That is, training providers and participants in post-secondary training need to be increasingly aware of how to apply skills learned from one occupation and/or educational program to another. Occupations thought of in terms of their “skill transferability” will ease mobility from an occupation in one industry to another occupation in a different industry. A career path is not only within a particular occupation, but also within industries regardless of occupation. For example, Executive Secretaries work in a variety of industries, and the skills learned in one industry may be transferable to another growing industry.

Exploring Trends

While we argue that it is more accurate to use vacancies as a determinant of *Hot Jobs*, it is still useful to examine employment projections and employment trends. This important information can further assist planners in decision making. Table 6 shows the

following statistics for each occupation (derived from the Massachusetts Job Vacancy Survey 2005 and Massachusetts Occupational Employment Projections through 2014):

- *2005 Total Employment*

This indicates the number of Massachusetts workers employed in each occupation in 2005.

- *2001-2005 Employment Trends*

In the context of this report, employment trends are a measure of an occupation's growth or decline over a period of time -- in this case, 2001-2005. Looking at occupational change in the aggregate (growth or decline) provides a more accurate picture than comparing specific numbers.

- *2004-2014 Occupational Projections*

Occupational projections are estimates of the future growth or decline of a particular occupation based on a number of historical data points that are combined and weighted appropriately so as to create an estimate that is as accurate as possible.

TABLE 6: EMPLOYMENT TRENDS

Hot Jobs	Mass. Employment (May 2005)	Employment Trends (2001-2005)	Occupational Projections (2004-2014)
Bus and Truck Mechanics and Diesel Engine Specialists	4,190	+	+
Cardiovascular Technologists and Technicians	1,030	-	+
Carpenters	21,010	+	+
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	4,450	+	+
Computer Support Specialists	15,500	-	+
Correctional Officers and Jailers	5,580	-	-
Dental Hygienists	5,690	-	+
Diagnostic Medical Sonographers	1,170	+	+
Executive Secretaries and Administrative Assistants	44,050	+	+
Fire Fighters	12,270	+	+
First-Line Supervisors/Managers of Non-Retail Sales Workers	6,580	-	+
First-Line Supervisors/Managers of Office and Administrative Support Workers	29,380	-	+
First-Line Supervisors/Managers of Production and Operating Workers	13,630	-	-
Food Service Managers	6,440	-	+
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	6,730	+	+
Legal Secretaries	7,540	+	+
Licensed Practical and Licensed Vocational Nurses	16,710	-	+
Plumbers, Pipefitters, and Steamfitters	10,920	+	+
Police and Sheriff's Patrol Officers	15,360	+	+
Postal Service Mail Carriers	9,330	-	-
Radiologic Technologists and Technicians	5,230	+	+
Registered Nurses	76,870	+	+
Respiratory Therapists	2,070	-	+
Sales Representatives -- Wholesale and Manufacturing, Except Technical and Scientific Products	32,410	+	+
Sales Representatives -- Wholesale and Manufacturing, Technical and Scientific Products	17,530	+	+
Tool and Die Makers	1,690	-	-

Twelve *Hot Jobs* lost employment during the period of 2001-2005. This loss is not altogether surprising, as the state has still not reached its pre-recession employment high seen in December 2001. That said, of those 12 occupations that decreased in employment, only four are projected to continue their decline through 2014. Despite the fact that these occupations are not projected to grow, job openings due to retirement, turnover, and the like will still occur in these positions.

While we did not use employment trend and projection data as selection criteria in our methodology, these factors are nevertheless important to keep in mind as program planners develop training programs for these particular occupations. These statistics,

together with vacancy rates, help to paint a fuller picture of the growth potential of certain occupations.

It is also useful to explore other economic factors relevant to program planners' selection of target occupations. For example, Jobs for the Future, in its report, *The Right Jobs: Identifying Career Advancement Opportunities for Low-Skilled Workers*, lays out three important risk factors to consider: offshoring, technological evolutions, and the risk of industry decline. As part of the needs assessment, planners may wish to evaluate these risk factors to determine if an occupation is worth the investment.

Having laid out the terrain of the larger level of the economy and labor market, we now turn to address some important topics associated with individual occupations. These issues include gender composition, educational requirements, and general caveats regarding certain occupations.

Education Requirements

Most demand-driven workforce initiatives focus on short-term education opportunities, and several factors are important to consider. While the *Hot Jobs* identified on our list are classified according to educational requirements, these classifications may not reflect reality. Planners should consider not only the minimum level of education required to enter a chosen occupation, but also the dominant level of education found among that occupation's employees.

The majority of workers in two of the occupations – Compliance Officers and Registered Nurses – possess at least a Bachelor's degree. Not having a Bachelor's degree may serve as a barrier to entry in these and other occupations. Therefore, workforce development professionals need to determine the level of education actually required by local employers.

The length of time it takes to complete education may vary depending on the educational requirements and individual student circumstances. Seven of the *Hot Jobs* require an Associate's degree. However, what is usually viewed as a two-year degree may take significantly longer to acquire due to part-time school attendance associated with the many barriers students often face. For example, 80% of students at community colleges are employed while attending school, and half of these students are employed

full-time. Many students also have caretaker duties which interfere with attending school on a full-time basis; over 35% of community college students have dependents, and 17.2% are single parents (Phillippe., & Sulliva, 2005).

Remediation also lengthens time to obtain a degree, especially in math and the sciences (requisites for a number of *Hot Jobs*). Many students need to take remedial classes prior to enrolling in credit-bearing courses en route to a degree. Overall, studies by several community college districts across the country have found that their graduates average more than four years to complete their degrees (Croix, 2006). Given this extended timeframe, adequate supports must be built into the process in order to set up clients for success.

Additionally, planners should be aware of the certification, licensing, and other requirements for target occupations. More information on these requirements can be found at www.liveworkthrive.org/online_tools.php.

Gender Composition

The gender composition of an occupation is another key factor for program planners to consider. This is especially important in light of the fact that poverty has a disproportionate impact on women as compared to men; in fact, 72% of single parent households in Massachusetts are headed by women (Evans, 2006). Meanwhile, women earn, on average, only 76% of their male counterparts' average income, making it even more difficult to reach self-sufficiency (Murphy & Graff, 2005). Since occupational segregation limits women's opportunities, it is critical to consider the gender make-up of an occupation when making program planning decisions. Specifically, gender composition provides information on how open a field is to women. The following table displays the 26 occupations, by gender composition.

TABLE 8 – *HOT JOBS* BY GENDER COMPOSITION

	Male	Female
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	99%	1%
Bus and Truck Mechanics and Diesel Engine Specialists	99%	1%
Carpenters	99%	1%
Plumbers, Pipefitters, and Steamfitters	99%	1%
Fire Fighters	98%	2%
Tool and Die Makers	95%	5%
Police and Sheriff's Patrol Officers	91%	9%
Correctional Officers and Jailers	88%	12%
First-Line Supervisors/Managers of Production and Operating Workers	77%	23%
Postal Service Mail Carriers	76%	24%
Sales Representatives -- Wholesale and Manufacturing, Except Technical and Scientific Products	74%	26%
Sales Representatives -- Wholesale and Manufacturing, Technical and Scientific Products	74%	26%
First-Line Supervisors/Managers of Non-Retail Sales Workers	67%	33%
Computer Support Specialists	66%	34%
Food Service Managers	64%	36%
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	47%	53%
Respiratory Therapists	36%	64%
First-Line Supervisors/Managers of Office and Administrative Support Workers	33%	67%
Cardiovascular Technologists and Technicians	21%	79%
Diagnostic Medical Sonographers	21%	79%
Radiologic Technologists and Technicians	21%	79%
Licensed Practical and Licensed Vocational Nurses	7%	93%
Registered Nurses	6%	94%
Executive Secretaries and Administrative Assistants	3%	97%
Legal Secretaries	3%	97%
Dental Hygienists	2%	98%

As shown above, 10 of the 26 occupations are considered non-traditional for women (defined as fewer than 25% women in an occupation); in addition, five occupations are majority male. As a result, workforce development programs targeting women may face challenges recruiting women. At the same time, women may face barriers in the classroom and on the job. Some of the non-traditional industries may also have hiring and promotion practices that discriminate against women.

Many workforce programs have developed ways to overcome these barriers, such as offering daycare and providing additional mentoring (see Crandall and Jain, 2007, for a more detailed review). While it is important that these interventions be implemented on a larger scale in the long run, there are also more immediate steps that program planners can take. Talking to educators and employers to both gauge their openness to, and educate them about, the importance of expanding opportunities for women could go a long way toward beginning to break down the gender barriers inherent to a number of *Hot Jobs*.

Key Considerations

Some identified occupations are less likely to be ideal targets for workforce development interventions. While they fit the methodological criteria, a few occupations raise concerns, on both sides of the dual customer equation. For example, four of the occupations are typically found in the public sector: police officers, firefighters, correctional officers, and postal service workers. Forging relationships with governmental partners may present special challenges, including issues regarding the ability to gain funding for a sectoral initiative via public revenue sources. Also, in addition to passing a civil service exam, in some cases applicants must pass a physical ability test, which may present barriers for women, older workers and those with disabilities.

The sales occupations listed may also present challenges for clients, since these occupations require both product knowledge and sales ability. The level of product knowledge required can be extensive, especially in occupations that are classified as technical or scientific. Further, sales positions are often commission-based, which is problematic for most low-income clients who require a secure salary. In all of these cases, as with any demand-driven workforce initiative, it is critical to conduct a needs assessment with employers to gain an in-depth understanding of the occupation, and to develop solutions to identified challenges.

Unlike previous attempts to identify lists of available and accessible occupations (e.g., Goldberger, Lessell, & Biswas, 2005; Crandall and Jain, 2005), we included those

occupations that required work experience in a related occupation. Although these occupations are typically excluded because they are out of reach for entry-level workers, we included them so that program planners could potentially work with employers to develop career ladders. Planners may wish to further explore the four supervisory positions identified here to determine if it is feasible to develop career ladders leading to those occupations.

There are additional concerns to which planners will also want to be attuned. A number of issues may present additional barriers to employees, such as criminal record checks (CORI), English-speaking requirements, and initial costs (for example, to purchase work clothing). Also, planners may want to target occupations and industries with a strong union presence, as unions often help to secure higher wages, better benefits, and training opportunities for employees.

Conclusion

Demand-driven workforce development efforts offer both a solution to employ unemployed and underemployed workers, and at the same time a way to fill available job vacancies. The success of demand-driven initiatives, of course, rests on the ability to accurately gauge the jobs that employers will need and workers can do. To that end, this report identifies 26 well-paying occupations that are both *available* and *accessible* for workers. These occupations hold the promise of a significant number of openings that could be filled by participants in workforce development efforts.

To determine the “hottest” jobs, we devised a methodology to identify as large a number of occupations as possible, resulting in 26 *Hot Jobs* that are best bets for Massachusetts. In order to get a more accurate picture of actual demand, we use job vacancies rather than occupational projections. In addition, the methodology uses the 75th percentile of wages instead of the median. In this way, significantly more – 26 instead of 13 – job opportunities are identified. These metrics, in combination with an examination of actual educational requirements, the gender composition of the identified occupations, and occupational data, offer a more finely tuned picture of how to develop and implement successful programs.

Of course, what workforce development professionals really want are accurate predictions and a guarantee that the jobs we invest in now will remain in demand and pay high wages in the future. Demand, however, is elusive; to a certain extent we are always chasing it, trying to catch up. This report, recognizably, provides a current snapshot of the labor market, and is unable to account for the shifts and changes that inevitably occur.

Workforce development planners and professionals should engage with local employers to (a) validate demand for these *Hot Jobs*, (b) learn about specific skills and qualifications required for these jobs in their region, as well as (c) determine the wages and salaries offered by local employers. We also suggest that program planners review vacancy and other labor market statistics when embarking upon new initiatives, and check the Crittenton Women's Union *Hot Jobs* website at www.liveworkthrive.org/online_tools.php for more information.

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APPENDIX A

DESCRIPTIONS OF EDUCATION LEVELS

- *Work experience in a related occupation:* Some occupations requiring work experience are supervisory or managerial occupations.
 - *Short-term on-the-job training:* This category covers occupations in which workers can develop the skills needed for average job performance after a short demonstration or up to one month of on-the-job experience or instruction.
 - *Moderate-term on-the-job training:* This category includes occupations in which workers can develop the skills needed for average job performance after one to 12 months of combined on-the-job experience and informal training.
 - *Long-term on-the-job training:* This category includes occupations that generally require more than 12 months of on-the-job training or combined work experience and formal classroom instruction for workers to develop the skills needed for average job performance. This category includes formal and informal apprenticeships that may last up to four years, and short-term intensive employer-sponsored training that workers must successfully complete. Individuals undergoing training are generally considered to be employed in the occupation. This category includes occupations in which workers may gain experience in non-work activities, such as professional athletes who gain experience through participation in athletic programs in academic institutions.
 - *Postsecondary vocational award:* Some programs last only a few weeks while others may last more than a year. In some occupations, a license is needed that requires passing an examination after completion of the training.
 - *Associate's degree:* Completion of the degree program usually requires at least two years of full-time equivalent academic study¹.
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