

Section B.

Attachment 1.

WIB Strategic Plan and responses to Strategic Plan questions

Attachment I.

Metro Southwest Regional Labor Market Review

The Knowledge Innovation Economy

Partnerships for a Skilled Workforce, Inc. (PSW, Inc.)

Foreword

This report was produced in the late winter and spring of 2008 and major changes in the economy have taken place since that time. Although we believe that the basic economic structure of the region remains the same, jobs, job vacancy rates and unemployment figures have clearly been affected by the current recession.

We would like to recognize the two people who were instrumental in the production of this document. The first is Navjeet Singh of the Commonwealth Corporation, whose ability to simplify complex economic analysis for the layman was outstanding. The second is Andrea Infantino, who tirelessly searched the Internet for additional information and who shaped the format that elicited so many positive comments from the readers.

Mary Feeney
Chair, PSW, Inc.
Partner, Bowditch & Dewey

Sylvia L. Beville
Executive Director, PSW, Inc.

Table of Contents

MSW...“Technology Heartland” of Massachusetts 1

STEM Industry Sector 4

Health Care Industry Sector 6

Manufacturing Industry Sector 8

Conclusions 10

Map 13

Metro Southwest... “Technology Heartland” of Massachusetts

The Metro Southwest (MSW) region contains communities that are defined by high-growth, high-paying knowledge and innovation industries, exceptional educational attainment, and outstanding research and education institutions.

Covering the area between Routes 128/I495, and serving 43 communities, Metro Southwest is the largest of the sixteen workforce investment regions in Massachusetts.

895,558 or 14% of the people in the Commonwealth lived in Metro Southwest on July 1, 2008, an increase of 1.4% since 2000. One-third of the population lived in five urban centers: Newton (82,139), Framingham (64,885), Waltham (60,236), Brookline (54,896), and Marlborough (37,932). Slow population growth in the period between 2000 and 2008 can be attributed to substantial out migration. In Middlesex and Norfolk Counties, new additions to the population for births and immigration from other countries exceeded the out-migration by only 27,214 people.

Metro Southwest has 16% of the 3,123,292 jobs in the state. The number of jobs in the region decreased by 17,745 or 3.4% between the third quarter of 2007 and the third quarter of 2009, placing the region in the middle of the Commonwealth for job loss, with Bristol County at 7.5% and Franklin/Hampshire at 2.7. During the same period, Massachusetts employment declined by 117,189 or 3.6%. MSW employs 30% of all technology workers in Massachusetts and has the largest number of technology intensive jobs. One of every four jobs in professional and business services in the state is in Metro Southwest. One in every four manufacturing jobs in the state is in Metro Southwest. 11.4% of health care jobs in the state are in Metro Southwest.

Key industry sectors¹ – MSW

PROFESSIONAL AND BUSINESS SERVICES—111,206

MANUFACTURING—49,928

CONSTRUCTION—18,829

Small employers dominate the region.²

33,083 establishments reported employment in March 2009, virtually the same number of establishments reporting employment in 2006. 86.7% had fewer than twenty employees. These firms accounted for just 22.4% (113,805) of the total number of jobs in the region. 2.6% of firms reporting at least 100 employees accounted for 49.6% of the jobs, nearly identical to the statewide share of 49.4%. Companies with 21–99 employees account for the balance of employees.

Ten of the 50 largest companies in MA have facilities in Metro Southwest

Raytheon...Defense/aircraft

CVS Caremark Corp...Retail pharmacy

EMC Corporation...High-tech storage systems

National Grid...Utility

Walgreens...Retail pharmacy

Harvard Vanguard Medical Associates...Health care

Analog Devices Inc. ...Digital signal processing/ Radio frequency/ Micro- electromechanical systems

Medical Information Technology Inc...Software applications for health care information systems

Siemens...Electronics/Electrical engineering

Intel Massachusetts Inc....Semiconductors/ Microprocessors

From a labor shortage to a labor surplus market

In 2008, large and persistent vacancy rates for critical jobs in the region jeopardized the continued growth of the innovation economy in Massachusetts. In the fourth quarter of 2009, the vacancy rate for all industries in Greater Boston was 2.3%, almost the same as the Commonwealth as a whole at 2.2%. The highest rates in Greater Boston were in retail trade (3.6%), professional and technical services (2.6%) and health care and social assistance (2.9%). There were five applicants for every job opening. Across the Commonwealth, 62% of the vacancies for all occupations were for part-time or temporary seasonal jobs. Between the third quarters of 2008 and 2009, the number of jobs in Metro Southwest decreased by 25,791 or 4.9%--the largest decrease of any of the workforce areas in the state. During the same period, Massachusetts lost 6,044 jobs or 0.2%.

MSW jobs command high wages

Average wages for the knowledge/innovation occupations of the region exceed by 30-40% the state mean wage of \$56,759.

Venture capital...an economic essential

Eleven of the twenty-five largest venture capital/private equity firms (2007) were in the Metro Southwest region. Total investments ranged from \$298 billion at Battery Ventures LP to \$56.8 billion at Commonwealth Capital Ventures.³

College-educated labor market

The Metro Southwest region is home to 44 school districts and sixteen colleges and universities. It has the largest number (1/6) of K12 students and 66% of all METCO students. The high school graduation rate of 92.5% in Metro Southwest is the highest of all sixteen work force areas. Marlborough, Assabet Valley, and Dedham have dropout rates of 5.1%, 3.5%, and 3.4% respectively.⁴ 6.5% of Metro Southwest labor force participants have an associate's degree; in Massachusetts, 8.1%; United States, 8.1%. 29.2% of Metro Southwest labor force participants have a bachelor's degree; in Massachusetts, 27.7%; United States 18.2%. 27.7% have a master's degree or more compared to 16.1% in Massachusetts and 10% in the nation.

Venture capital and private equity firms (MSW)

Battery Ventures LP, Waltham
Highland Capital Partners, Lexington
Polaris Ventures Partners, Waltham
North Bridge Venture Partners, Waltham
Atlas Venture, Waltham
Ampersand Ventures, Wellesley
Charles Rivers Ventures, Waltham
Advance Technology Ventures, Waltham
Prism Venture Partners, Needham
Kodiak Venture Partners, Waltham
Commonwealth Capital Ventures, Waltham

A Changing Workforce

The MetroWest Daily News reported in December 2010 that 17% of the population in Metro West was born outside the United States. Latin America was by far the largest country of origin, followed by Asia and then Europe.

Unemployment

In November 2007, the unemployment rate in MSW was 3.3%, with 4,794 people collecting unemployment insurance: In the first quarter of 2010, the rate had risen to 7.3%, below the state's rate of 9.9%. Labor force participants with no high school diploma were most severely affected. They were three times more likely to be unemployed than holders of bachelor's degrees—10.3% compared to 3.1%.

The nature of unemployment has changed drastically since 2000. 58.4% of the unemployed permanently lost their jobs (38.5% in 2000). The average duration of unemployment was 34 weeks—12th highest in the nation.

In Massachusetts, people who were forced to work part-time because they could not find a full time job increased from 66,000 in 2007, to 177,000 in 2009. The number of unemployed and under-utilized working age adults equaled almost 16% of the state's labor force.

Not all residents share in the prosperity

The overall cost of living in MetroWest was about 32.5% higher than the national average in April 2009. Housing costs were about 65% higher than the national average. Groceries were slightly over 15% higher. 5.5% (4,653) of the 84,600 people in Newton were officially poor in 2009. One in four families in the urban centers, Framingham, Marlborough, Norwood, Waltham, do not earn enough to cover food, rent, health care, transportation, child care and other essential expenses. Only .3% of the Department of Transitional Assistance grantees in the state (48,913) were registered with the Milford and Framingham offices. 1,238 families had incomes that were low enough to qualify for public assistance.

In 2006, 79,084 young people between the ages of 16 and 24 lived in Metro Southwest, a group that grew 22% between 2000 and 2006. The average employment rate (2005-2007) for 16 to 19 year olds was 33.1%—only one in three young people were working compared to one in four in Boston and one in two in Bristol County. This parallels the national picture. Between 2000 and 2008, the national employment rate for teens ages 16-19 dropped 11.8%. For young adults ages 20-24, the drop in employment was 4.8%. Teen employment continued to drop across the nation to 23.6% in the first five months of 2010.

Decreasing employment rates for young adults and teens

STEM Industry Sector

SCIENCE, TECHNOLOGY, ENGINEERING, MATH *

Known as the “Technology Heartland” of Massachusetts, the Metro Southwest region has the largest concentration of high paying science, technology, engineering and math-related industries and occupations in Massachusetts.

STEM workers earned about 70% more than the national average of \$37,870 in 2005. The annual average salary was \$64,560 for all STEM workers. Engineers were at the top of the distribution earning \$74,670.

Two STEM industries dominate the region

Professional and business services

The professional and business services industry is composed of computer, engineering, science, legal and architectural and engineering occupations. It makes up 21.7% of the jobs in Metro Southwest and 36.5% of the payroll (\$12,737,400,006). The sector lost 5.4% (6,392) of its jobs between the 3rd quarter of 2008 and the third quarter of 2009.

- Architectural and engineering—12,542 jobs
- Computer system design—20,248 jobs
- Management and technical consulting—10,585 Scientific research and development—8,954 jobs
- Legal, accounting and payroll services—7,650 jobs

Professional and business services jobs⁵

Information technology

Information technology jobs include software publishing, ISPs, telecommunications, search portals, data processing and related occupations.

Metro Southwest has a greater share of the information technology jobs than any other region of the state at 4.4%, but at 21,892 in 2009 it remains below its 2001 peak of 30,000.1 This sector has 6.8% of the payroll (\$2,379,274,003).

Demand for STEM occupations will increase

In 2010, as Baby Boomers begin to retire, the national STEM worker retirement rate will be almost double the 2000 retirement rate, increasing from 3.7% to 7.3%.

Between 2004 and 2014, the demand for engineers in the United States is projected to increase by 13% from 1,448,871 to 1,643,500 jobs. If replacement jobs are included, the total demand for engineers in 2014 will be 507,000.

* This section draws upon national, state and Greater Boston data because data is not available for the MSW region. However, the data and conclusions drawn here are supported by the conversations with regional industry leaders.

In Massachusetts, the net job growth for professional and technical jobs is 347,260, including new jobs and replacements.

Demand for computer and mathematical workers rose seven percent between the 4th quarter of 2008 and the 4th quarter of 2009, but the group's job vacancy rate remained unchanged over the year at 2.3 percent. Firms seeking specialized engineers and scientists continued to experience spot vacancies. As the economy rebounds, STEM vacancy rates are expected to rise.

STEM workforce predominantly white⁶

People employed in STEM across the state were predominantly white (89%). Blacks, Hispanics, and Asians make up the remainder. The share of Asian workers, at six percent of the total jobs, exceeded their incidence in the population.

Given projected demographic changes, both Massachusetts and the country have not addressed the under-representation of minority and female students in STEM careers.

Too few STEM graduates to meet demand

In the US, with the exception of computer and information sciences bachelor's degrees, the number of degrees awarded in STEM-related college majors was flat between 1994 and 2004. The decline in master's degrees in engineering was reversed with an increase to 35,000 degrees awarded in 2004.

STEM degrees in Massachusetts

The trend line for Massachusetts high school students choosing post-secondary STEM majors has been essentially flat for the last ten years.

Bachelor degrees⁷

- Engineering—declined 2.1% from 2,395 in 1996 to 2,344 in 2006
- Computer and information services and support services—rose 61.1% from 763 in 1996 to 1,229 in 2006
- Mathematics and statistics—rose 19.2% from 542 in 1996 to 646 in 2006
- Life sciences—declined 3% from 2,213 in 1996 to 2,146 in 2006

Associate degrees

- Engineering technologists and technicians declined 24%, from 835 in 1996 to 633 in 2006.

HEALTH CARE INDUSTRY SECTOR⁸ —abundant and diverse opportunity

The health care industry in Metro Southwest offers an abundance and diversity of career entry points that require little or no education. With on-the-job-training and additional education, workers can move up through several levels of health care jobs to professional positions.

In 2008, the number of people employed in Metro Southwest in health care was 44,708, 9.3% of the private workforce. Although the rate slowed, the sector continued to add jobs during the recession. Health care executives in the region attributed limited growth to the reduction in elective procedures in acute care facilities and less demand for beds in nursing homes. Many staff postponed retirement, reducing the vacancy rates in nursing and allied health.

Employment in health care in Massachusetts will continue to grow through 2016, with the largest growth rates in home health care (42.9%), residential mental health facilities (33.9%), and elderly community care facilities (33.9%). The largest number of health care jobs will be in hospitals, growing from 169,020 in 2006 to almost 250,000 in 2016.

MSW health care employment

Doctors Offices and Walk-In Clinics: 21,307 (47.7%)

Hospitals: 10,019 (22.4%)

Nursing and residential care facilities: 13,383 (29.9%)

The occupational profile of each sector within health care varies dramatically

- Fifty percent of hospital employment is professional health care workers
- Only 19% of the workers in nursing and residential care facilities are classified as “professionals.”

Health care employment growing⁹

Of the 20 occupations projected to be the fastest growing between 2006 and 2016, eight are in health care.

- Home health aides—34%
- Personal and home care aides—36%
- Physician technicians—29%
- Physical therapist assistants—27%
- Medical assistants—32%
- Medical scientists, except epidemiologists—24%

Fifty percent (50%) of the health care workforce is direct care workers with health care professionals making up 34% and health care support workers accounting for 16%. Administrative support at 17% is the second largest category of workers in the health care workforce.

Occupations generating nearly half of projected new jobs in Massachusetts by 2016.¹⁰

Registered nurses—16,110 jobs

Nursing aides, orderlies and attendants—5,590

Home health aides—5,820

Personal and home care aides—4,010

Major health care firms (MSW)

Harvard Vanguard (Atrius)

Metrowest Medical Center

Newton Wellesley Hospital

Norwood Hospital (Steward)

Marlborough Hospital

Emerson Hospital

Beth Israel Deaconess, Needham

Persistent and critical vacancies

Health care and social assistance accounted for more than 23% of all job vacancies in the state in the fourth quarter of 2009. Almost three percent of the jobs were vacant, a reduction from the 4.8% rate in 2008. Vacancies were highest in health care practitioner and technical workers occupations.

Retirements will have a critical impact

Although many have postponed retirement due to the recession, baby-boomer retirement will negatively affect the ranks of experienced professional healthcare workers.

Age	16-39	50-59	60+
Registered/practical nurses	35%	25%	6%
Nursing aides/ home health aides	51%	17%	8%

Minorities account for only 4% of health care professionals in Metro Southwest³¹

In 2000, the health care workforce was 83% white, 15% Hispanic, and 2% black or Asian.

Statewide, the nursing workforce is overwhelmingly white—92% of registered nurses and 85% of licensed practical nurses.

The nursing aides and home health aides workforce is more diverse with 20% African American, 8% Hispanic and 8% other.

High educational requirements

Approximately half of all jobs in the healthcare sector are professional and require a college education, or are healthcare support, requiring a certificate or completion of a job training program.

Health professional and clinical sciences degrees declined by 15.7%, from 2,910 to 2,452 degrees between 1996 and 2006.

Highly paid professionals

At \$78,390 the average wage of Massachusetts health care professionals in 2009 was 112% of the US average. The average wage for health care support workers was \$27,480. During the period 2001-2006, median wages for health care professionals increased by almost \$20,000 or 6.19% a year. They earn 161% of the Massachusetts median salary of \$37,350. In the same period, wages for healthcare support workers increased only 1.35% a year. Their earnings were only 74% of the Massachusetts median salary.

**MANUFACTURING INDUSTRY SECTOR¹¹
—not as we once knew it**

Manufacturing in Massachusetts today is not the same as it was one generation ago or even ten years ago. It is more productive employing fewer people. Its STEM workers are highly educated, well paid and work with state-of-the-art technologies.

Manufacturing is the fourth largest sector in the Metro Southwest region

Although manufacturing lost almost 31,000 jobs over the past decade, 48,555 people worked in manufacturing in the first quarter of 2010, making it the fourth largest industry in Metro Southwest.

One out of every five manufacturing workers in the Commonwealth work in Metro Southwest. Within the sector, 41% of the people who produce computer and electronic products work in Metro Southwest; 27.8% of chemical manufacturing workers and 23% of workers in medical equipment and supplies.

Manufacturing is a key contributor to the Metro Southwest economy. Manufacturing firms paid \$1.2 billion in wages in the first quarter of 2010. 25.6% of wages paid to manufacturing workers were paid by Metro Southwest firms.

Major manufacturing sectors (MSW)

A significant share of the Commonwealth's manufacturing workers produce products in the region.

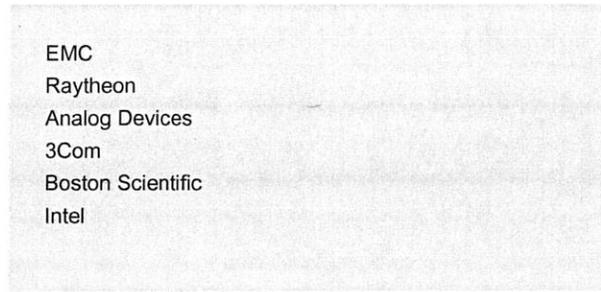
- Total workers: 48,555 (19.3%)
- Computer/electronic products: 24,832 (41%)
- Chemicals: 4,858 (27.8%)
- Medical equipment: 2,442 (23.0%)
- Fabricated metal products: 3,330 (12.5%)

Occupations

Manufacturers in Metro Southwest employ more professionals—engineers, computer specialists, managers, and financial workers—and require fewer production and material moving jobs than manufacturers across the state.

% Sector	Mgr	Prof	Service	Sales	Admin	Blue Collar	# Employees
Computer & Electronic Products	10	45	0	4	11	29	72, 570
Fabricated Metal Products	7	8	1	3	12	70	35, 580
Electrical Equip Components	9	22	0	3	13	53	11, 200

MSW annual average wage surpasses the state



Major manufacturers with offices and plants in Metro Southwest

Metro Southwest manufacturing wages exceed those for the state in all occupational categories. In 2010, the MSW average weekly manufacturing wage was \$1,857-- \$457 more than the state average.

Manufacturing requires college degrees

Many manufacturing occupations today require an associate's degree or higher (61%) and related experience (84%). Ninety-five (95%) of production occupations in Massachusetts require experience and/or on-the-job training.

The majority of manufacturing management jobs requires a bachelor's degree (74%). The balance of management jobs (24%) requires only experience and/or on-the-job training.

Sixty-three per cent (63%) of engineering occupations in manufacturing require a bachelor's degree; 23%, associates, and 11%, a certificate. Only 3% require only experience and/or OJT.

Highly educated manufacturing workers

In 2000, 15% of workers had less than a high school diploma. In 2006, this figure was 12%.

While the share of workers with a high school diploma remained steady at 30%, those with a bachelor's degree or higher increased from 29% to 34%.

Blue collar workers, in 2006, were more highly educated than those in 2000. The share of workers with less than high school declined to 21% from 28%, while those with a high school diploma grew slightly from 43% to 47%. Workers with at least some college grew from 27% to 29% and seven per cent (7%) of workers had a bachelor's degree.

Persistent and critical vacancies

In 2008, there were 2,292 manufacturing vacancies in Greater Boston, 2.3% higher than the state as a whole at 1.7%. By the fourth quarter of 2009, the rate had shrunk to 1%. There were no vacancies for production workers.

Retirements will have crucial impact

Manufacturing in MSW has an older workforce than the state as a whole. In 2006, 49% of MSW workers in manufacturing were 45 years or older. Less than a quarter of MSW workers are between the ages of 15 and 34; statewide almost a third are in this age group.

CONCLUSIONS

MSW must act to maintain competitive advantage

Metro Southwest is a knowledge and innovation-based high-end economy. STEM industries and manufacturing sectors are strong players in the export market with access to venture capital and research and development via the higher education system. The region's competitive advantage lies in its highly educated labor pool and vibrant STEM, health care, and manufacturing clusters. State and local policy makers must support continued growth and act to preserve these advantages.

There are challenges that, if ignored, will reduce the ability of the region to compete within the Commonwealth, in the United States, and in the world. Labor force growth is stagnant and persistent vacancy rates exist in key occupations. The participation rates of minorities, women, and youth in STEM jobs are not reflective of the size of their populations. Retirement of older STEM workers, particularly males, will double between 2010 and 2014, seriously reducing the STEM workforce.

Competitive Advantages

Growing industry clusters in STEM, Health Care, Manufacturing and Retail

Strong players in the manufacturing and STEM export markets

Venture capital

Access to cutting-edge research and development in world-class higher education institutions

Highly educated labor pool

The content and pedagogy in educational institutions at all levels must reflect 21st Century skills and practices to match the skill demands of employers. Business and education leaders must build on current reform efforts to insure that students have the 21st Century skills required to compete in a global economy and earn a sustainable wage.

There is growing economic inequality in the region. While there are large numbers of well educated, highly paid people in the region, there are also sizeable cadres of people without the education necessary for earning sustainable wages. Strategies must be found to upgrade their academic and occupational skills to meet the requirements for higher paying jobs and career opportunities.

Challenges

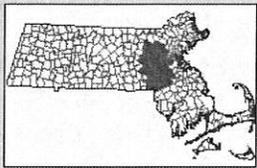
Reducing vacancy rates by increasing the number of minorities and women in STEM jobs, retention of older males, and employment of youth

Aligning skills of current and future workers with employer requirements

Increasing the awareness, interest, and motivation of middle and high school students to pursue STEM and health care post-secondary programs of study

Increasing economic opportunity for all residents

Metro South/West Regional Employment Board



2 0 2 4 6 Miles



End Notes

1. Singh, Navjeet. Commonwealth Corporation. Meeting Presentation 2008.
2. *LMI Profile, Annual Profile for Massachusetts*. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, March 2008.
3. "Area's Largest Venture Capital & Private Equity Firms." *Boston Business Journal* 6-12 June 2008: 25.
4. Sum, Andrew, Joseph McLaughlin, Ishwar Khatiwada, and Sheila Palma. The Collapse of the 2008 Summer Teen Job Market: A Record 60 Year Employment Low for the Nations's Teens. Center for Labor Market Studies, Northeastern University. Boston, MA.
5. Singh, Navjeet. Commonwealth Corporation. Meeting Presentation. 2008.
6. Singh, Navjeet. Commonwealth Corporation. Meeting Presentation. 2008.
7. Singh, Navjeet. Commonwealth Corporation. Meeting Presentation. 2008.
8. Singh, Navjeet, and Jonathan Latner. *Massachusetts Healthcare Chartbook*. Commonwealth Corporation, Massachusetts Department of Workforce Development, Division of Career Services, Boston, October 2007.
9. *LMI Profile, Annual Profile for Massachusetts*. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, March 2008.
10. *LMI Profile, Annual Profile for Massachusetts*. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, March 2008.
11. Singh, Navjeet, and Jonathan Latner. *Massachusetts Manufacturing Chartbook*. Commonwealth Corporation. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, 2008.

Works Cited

"Area's Largest Venture Capital & Private Equity Firms." *Boston Business Journal* 6-12 June 2008: 25.

"College MatchMaker." *Advanced College Finder*. 2008. 22 July 2008
<<http://collegesearch.collegeboard.com>>.

Route 1 Corridor Projects. March 2008.

Identifying and Defining Life Science, Bio-Tech, Knowledge Industries and Information Technology Industries. Massachusetts Department of Workforce Development. Division of Career Services. Boston, July 2007.

Labor Market Development in the Metro South/West Workforce Area, Center for Labor Market Studies, Northeastern University, September 2008.

LMI Profile, Annual Profile for Massachusetts. Massachusetts Department of Workforce Development, Executive Office Labor and Workforce Development. Boston, March 2008.

Massachusetts Critical Vacancies. Massachusetts Department of Workforce Development Executive Office of Labor and Workforce Development, Commonwealth Corporation. Boston, 2nd Quarter 2007.

Massachusetts Job Vacancy Survey, Hiring Trends by Industry and Occupation. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, 2nd Quarter 2007.

"Massachusetts Largest Employers." *Boston Business Journal* 18-24 Apr. 2008: 25.

Regional LMI Profile, Annual Profile for Metro South/West Workforce Area. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, March 2007.

Singh, Navjeet, and Jonathan Latner. *Massachusetts Healthcare Chartbook*. Commonwealth Corporation. Massachusetts Department of Workforce Development, Division of Career Services. Boston, October 2007.

Singh, Navjeet, and Jonathan Latner. *Massachusetts Manufacturing Chartbook*. Commonwealth Corporation. Massachusetts Department of Workforce Development, Executive Office of Labor and Workforce Development. Boston, 2008.

Singh, Navjeet. Commonwealth Corporation. Meeting Presentation. 2008.

Sum, Andrew, Joseph McLaughlin, Ishwar Khatiwada, and Sheila Palma. *The Collapse of the 2008 Summer Teen Job Market: A Record 60 Year Employment Low for the Nation's Teens*. Center for Labor Market Studies, Northeastern University. Boston, MA.

Terrell, Nicholas. "STEM Occupations." *Occupational Outlook Quarterly* (Spring 2007): 26-33.

US Census Bureau, 2000 Summary File. "Where are the critical vacancies?" *Research and Evaluation Brief*. Vol. 5, Issue 1. July 2007.

Attachment 2.

*Advancing The
Knowledge Innovation Economy*

Partnerships for a Skilled Workforce, Inc.

Foreword

The Metro Southwest Region of the Commonwealth has a competitive advantage, both in the Commonwealth and across the nation, in health care, manufacturing and professional and business services. The manufacturing and professional and business service companies are strong players in international markets with access to venture capital and the research and development capability of colleges and universities in Greater Boston. The region has one of the most highly educated labor pools in the nation with substantial numbers of scientists, engineers, mathematicians and skilled technical workers. In both policy and practice, the region must sustain those advantages to retain the region's competitive edge.

There are, however, challenges that must be overcome. The first is sluggish labor force growth. The second is the skills gap. Persistent vacancy rates in key occupations are a signal that too few workers have the skills that employers demand. The third is economic inequality. In spite of high average wages in the region, there is a growing gap between those at the high end of the pay scale and those at the lower end. One in five families in the region's urban centers does not make enough to support their families.

The collective talent across the region was assembled in various forums to develop strategies to meet those challenges. Their advice is reflected in this document. We would like to thank the Board of Directors and recognize others who gave generously of their time. The list of the participants in this strategic planning process is attached.

Mary Feeney
Chair, PSW, Inc.
Partner, Bowditch & Dewey

Sylvia L. Beville
Executive Director, PSW, Inc.

Table of Contents

Economic Opportunity for All Residents	4
Strategy One. Enhance the value of the one-stop career centers to businesses and individuals	4
Strategy Two. Reduce health care staffing shortages	5
Strategy Three. Increase the STEM Pipeline	6
Strategy Four. Increase young people’s ability to succeed in the labor market ...	9
Strategy Five. Increase the effectiveness and visibility of PSW	12
Participants	16

Economic Opportunity for All Residents¹

Partnerships for a Skilled Workforce, Inc. (PSW) builds *partnerships* with business, education, community organizations and government agencies that will:

- Help companies develop a well-trained workforce so that they will survive and prosper
- Enable individuals and families to reach economic self-sufficiency through education and training for 21st Century jobs

PSW's *vision* is:

- The workforce, current and future, has the skills demanded by the health care, high tech and manufacturing industries
- Individuals of all ages, genders and racial and ethnic groups improve their economic status through education, training and job search support
- Low-income individuals and at-risk young people succeed in the labor market
- Labor supply grows in occupations where there are persistent vacancies because more women and minorities choose STEM careers

Strategy One. Employment and Training Resources (ETR)²

Enhance the value of PSW's one-stop career centers to businesses and individuals

ETR is a partnership of the Metro South/West Employment and Training Administration and the Massachusetts Department of Career Services with centers in Framingham and Norwood and satellites in Newton, Marlborough, and Milford. The centers are the gateways through which customers access career counseling, job search assistance, and occupational training.

ETR's mission is:

- Empower individuals with labor market information, services and resources needed to manage their employment transitions and careers
- Provide business access to the competent workforce needed to successfully compete in a global economy

ETR's goals are:

¹ The strategies articulated in the document are based on the labor market analysis, *The Knowledge Innovation Economy* and on experience over the past decade.

² For additional information, contact Ellie Rose, Career Center Director, 781-769-4120.

- Move people out of poverty by providing pre-employment training and by placing them in firms that provide education and training in jobs that lead to the incremental attainment of family self-sufficiency wages
- Place dislocated workers in jobs that pay wages sufficient to maintain their standard of living
- Assist employers in meeting workforce needs

Action

Expand services to business and industry in the construction, health care and medical device manufacturing industries

Improve and expand services to veterans

Improve and expand services to ex-offenders

Increase the revenue base and diversify funding

Strategy Two HealthcareWorks³

Reduce health care staffing shortages

There is an urgent need for scalable strategies to address the growing need for nurses and allied health professionals. The gap between the demand and supply for nursing and allied health professionals is currently jeopardizing the quality of patient care and is expected to grow over the next two decades. By 2010, the projected gap between the supply of Massachusetts registered nurses (65,801) and the demand (75,033) will be 9,096. By 2020, that gap will almost triple to 25,382.⁴

Health care education programs in Massachusetts are not meeting this demand. In 2003, post-secondary health care education programs met only 30% of the demand for registered nurses, 32.5% for radiological technicians, 45.4% for respiratory therapists; 11.7% for medical records technicians; and 67% for surgical technologists.⁵ (Data is not available for 2004 or subsequent years, but anecdotal evidence from community colleges suggests that the pattern has not changed.) Many colleges have low graduation rates, because students do not have the academic skills to master the coursework. College applicants must be able think critically, comprehend what they read and must have adequate math and science preparation.

Action

³ For additional information, contact Henry Bryson, Project Director, 508-281-6910.

⁴ As reported by the Robert Wood Johnson Foundation. *Projected Supply, Demand and Shortages of Registered Nurses: 2000-2020*. US Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, National Center for Health Workforce Analysis.

⁵ Singh, Navjeet. Massachusetts Commonwealth Corporation, 2006.

Further develop the Health Care Learning Network™

The Health Care Learning Network™ (HCLN™)—a web-based, instructor-facilitated remediation education system—prepares front-line health care workers to complete post-secondary education programs and become licensed nurses and allied health professionals. Using the latest in instructional and learning outcomes management technology, the HCLN™ delivers health care industry-specific college preparatory coursework to front-line health care workers. It is a web-based system available to health care workers on the North Shore and in Metro Southwest. Over the next five years, access will expand across Eastern Massachusetts and Rhode Island. Ultimately, any health care worker or low-income community resident across the nation will be able to access the HCLN™.

HCLN™ has three components—college preparation, basic academics and digital literacy. The college preparatory program has three courses—Introduction to Allied Health and Nursing (academic reading, writing, career exploration, and health care terminology); Health Mathematics (pre-algebra and algebra), and Health Care Science (scientific thinking, biology, chemistry, anatomy and physiology).

All courses include the core competencies required of health care workers for customer service and patient interaction: thinking skills (creative thinking, decision making, reasoning, problem solving, and learning-to-learn); self-management and teamwork skills; and techniques for managing learning in addition to work and family responsibilities.

The coursework is contextualized to health care. Lessons and assignments are based on problems and circumstances that are encountered in the health care work place. The content and organization of learning is driven by both the current and future skills requirements of the health care industry, the career aspirations and educational needs of health care workers, and the knowledge needed to pass college entrance examinations.

Adult students need both personal and academic support if they are to surmount the challenges of combining work, family and academic study. Support in HCLN™ is provided in three ways: career coaching, communities of learning and academic tutoring.

Four partners were engaged in the development of HCLN™: three workforce boards, (PSW and the North Shore and Greater Lowell Workforce Investment Boards) and World Education, Inc., a \$30 million, Boston-based education non-profit.

With its origin in acute and long-term care facilities, HCLN™ has expanded to the community colleges and adult learning centers. The focus will be on increasing penetration into those two additional markets.

Strategy Three. The Technology Initiative

Increase the STEM Pipeline⁶

Both *The 2007 State New Economy Index*⁷ and *The June 2008 State Technology and Science Index*⁸ rate Massachusetts as first among all US states and furthest along the path to the New Economy. Its lead has

⁶ For additional information contact Sylvia Beville, Executive Director, 508-281-6910.

⁷ Atkinson, Robert D., and Daniel K. Correia. *The 2007 State New Economy Index*. The Information Technology and Innovation Foundation. Washington, D.C. February 2007, p. 18.

diminished somewhat, but Massachusetts remains the gold standard for other states to consider when evaluating their own technology and science capabilities.

In spite of this good news, there are disconcerting warning signs that have been emerging over the past few years:

- Massachusetts science, technology, engineering and math (STEM) job vacancies have grown from 9,500 in the second quarter of 2006 to 11,600 in the second quarter of 2007⁹
- In 2010, the national STEM worker retirement rate will be approximately double the 2000 retirement rate¹⁰
- The trend line for Massachusetts high school students choosing post-secondary STEM majors has been essentially flat for the last 10 years¹¹
- Massachusetts trails many of its competitor states in the rate of students choosing post-secondary STEM majors¹²
- Given the country's projected demographic changes, both Massachusetts and the country are failing on a significant scale in their efforts to address the under-representation of minority and female students in STEM careers¹³

Action

Scale Up Leadership Initiative for Teaching and Technology (LIFT²)

Twenty years of research makes it clear that expanding the STEM pipeline will require increasing the preparation and skills of middle and high school math and science teachers to prepare, inspire and motivate students. Leadership Initiatives for Teaching and Technology (LIFT²) was developed seven years ago as a critical component of this strategy. LIFT² has become a scalable, sustainable regional partnership between businesses, school districts and higher education that can be replicated in other workforce regions throughout the state.

The LIFT² program provides a paid five-to-eight week summer externship in a high tech, engineering or biotech company. Three graduate-level courses help teachers develop new real world-based, technology-infused curriculum units and classrooms where STEM careers are explored. To date, 87 teachers have participated in the program, impacting 28,000 pupils. Independent evaluations early in the program and teacher testimonials confirm that the program helps teachers revitalize their classes.

⁸ DeVol Ross, and Anita Charuworn, with Kim, Soojung. *State Technology and Science Index*. Milken Institute, Santa Monica, CA, June 2008, pp 1 and 3.

⁹ Foley, Cathy. *4th Quarter 2007 Massachusetts Job Vacancy Survey*. Massachusetts Department of Workforce Development, June 2008, Appendix p. 5.

¹⁰ National Science Board. *Science and Engineering Indicators 2004*. National Science Foundation, Arlington, VA, pp. 3-29.

¹¹ National Science Board, *Science and Engineering Indicators 2004*. National Science Foundation, Arlington, VA, pp. 3-29.

¹² Massachusetts Technology Collaborative and The John Adams Innovation Institute. *10 Years of the Index of the Massachusetts Innovation Economy*. 2006, p. 49.

¹³ Massachusetts Technology Collaborative and The John Adams Innovation Institute. *10 Years of the Index of the Massachusetts Innovation Economy*. 2006, p. 49.

In FY09 the REB will:

- Raise \$240,000 from 30 companies sponsoring teacher externs
- Increase teacher participation from 15 each year to 30 a year by creating a web-based teacher recruitment strategy, building on existing partnerships with industry associations like the American Council of Engineering Companies of Massachusetts, the Biotechnology Education Foundation and the Massachusetts High Technology Council to increase the number of companies that hire teachers, and developing a media communications strategy
- Enhance the experience for teachers by creating a community of learners for past and present LIFT² teachers
- Find resources to support a longitudinal evaluation

Action

Play a leadership role in the MetroWest STEM Education Network

Recognizing that collaboration across multiple constituencies will be required to address STEM readiness issues, PSW has been a founding partner in organizing the MetroWest STEM Education Network, one of seven regional networks chartered by the Massachusetts Department of Higher Education. Stakeholders from K-12 school districts (including private schools and regional vocational technical schools), institutions of higher education, economic competitiveness organizations, and businesses collaboratively address regional education and workforce needs relating to science, technology, engineering and math (STEM) careers.

The Network received three multi-year grants from the Department of Higher Education's STEM Pipeline Fund to:

- LIFT² teachers. During the 2008-2009 school year, provide the teachers (1) with STEM career information and resources to share with their 1,300 students and (2) the support they need to arrange student field trips to their companies and/or schedule company employee visits to their classrooms
- Saturday STEM Academy. With the Christa McAuliffe Center at Framingham State College and The Greater Framingham Community Church, PSW will implement a Saturday STEM Middle School Program in four school districts. Eighth grade candidates for the Saturday STEM Academy and their parents will attend workshops that use hands-on activities and information about STEM careers to demonstrate that the children can succeed in STEM courses and increase enthusiasm for STEM careers. The workshops will expose the parents and children to minority STEM professionals and college students and will provide the foundation for parental involvement if the child is admitted to the Saturday STEM Academy
- Norfolk Agricultural School, MassBay Community College and Massachusetts General Hospital will expand a program to provide Norfolk Agricultural students with an array of experiences that expose them to careers in laboratory animal care

Strategy Four. Young Adult Employment Initiative

In response to the persistent youth unemployment rate, PSW will increase young people's ability to succeed in the labor market, targeting in-school and out-of-school youth whose incomes do not exceed two hundred percent of the poverty level in communities where the need is greatest.

Partnerships for a Skilled Workforce, Inc. (PSW, Inc.) designs and implements initiatives that enhance the employability of young adults, both in and out of school. Successful programs combine work and learning, have strong connections to employers, provide opportunities for young people to serve the community, offer continuity of contact with caring adults and positive peer support. The Young Adult Initiative Board gives priority to communities that have a demonstrated need and are committed to building partnerships among employers, educators and social service agencies to ensure that all youth receive services.

Action: Education

Provide services and support to enable young people to complete secondary education and transition to post-secondary education

Education is the key to long-term financial stability. Young people must understand the importance of literacy and numeracy skills and be motivated to complete high school and enroll and sustain in post-secondary education. Work underscores the importance of an education and can be a motivating factor to stay in school. PSW, Inc. will increase school faculty and staff support for work as an incentive to remain in school. PSW, Inc. will create opportunities for youth to explore career pathways in school, e.g., career days, job shadowing, and employer speaker bureaus, and create opportunities for young people to exercise leadership in their schools and in their communities. In addition, PSW, Inc. will influence the educational system by providing professional development for teachers that enables them to incorporate 21st Century skills in their classroom curricula.

Help youth not engaged in school to follow the educational pathway that meets their needs—reentering high school, obtaining a GED or alternative high school diploma, finding a post-secondary education program that enables them to complete high school and technical certification simultaneously

Multiple education pathways will be supported to prepare young people for post-secondary education. "Post-secondary education" includes certificate, degree and apprenticeship programs.

Action: Skills

Young people who succeed in the 21st Century must have the skills to navigate the labor market and flourish in the work place. The skills should be acquired and evaluated in both the classroom and the workplace

The skill sets include:

- Academic: read, calculate, communicate orally and in writing, and collect, analyze, synthesize and use data

- Work readiness: be punctual, personable, and assertive; accept responsibility and own the task; take direction and constructive criticism; understand the workplace culture, policy and safety; manage time; and resolve conflicts
- 21st Century skills: take initiative, solve problems, think critically, use technology appropriately, exercise leadership and work in teams

Action: Jobs

Young people in targeted communities will learn to work by working in the summer, after school, and on weekends in paid employment and internships

Work will provide an opportunity for each individual to do real work, to apply what they learn in school on the job, to acquire the work-place skills listed in the Work-Based Learning Plan, and to build self-confidence and independence. Work should be viewed as an opportunity for learning about employer expectations, to develop the ability to work in teams, to acquire technical skills, and feel a sense of accomplishment. Sustainable work will reinforce the importance of attaining education certification and degrees.

Jobs may be in the public or private sector. Both must be structured to maximize learning and explore career paths. Private sector jobs should be in growth sectors. Employers must be aware of and understand the need to set professional standards, have a clear statement of the work to be done and how that fits into the whole, and to evaluate youth performance based on those standards.

Although unpaid internships are integrated into many school districts' programs, paid jobs and internships, available year round, shall be given priority. Work for many young people is a necessity—the income earned from working pays for clothing, school supplies, and other personal necessities and augments their families' incomes. School credit for internships is desirable.

Action: Transportation

The members of the Young Adult Initiative Board will put transportation for youth employment on the agendas of government, community leaders and employers and encourage young people to exercise leadership, advocating for themselves

There are limited opportunities at present for youth to have a voice in public policy debates. The YAIB will support leadership activities that encourage young people to become active citizens and speak out about their need for transportation to employment opportunities.

The members of the YAIB will ask community organizations, educators, and employers to develop strategies and programs that expand job transportation for young people and work with state legislators, members of the United States Congress and federal and state administrators to allocate the resources necessary to make transportation to jobs available to every young person. YAIB member advocacy may take the following forms:

- Member networking, educating policy makers, community leaders and officials that they interact with in their jobs and in their communities about the importance of work transportation for individual youth economic self-sufficiency, including the value of work as a dropout prevention strategy

- Forums to educate employers and others that providing job transportation to young adults is investing in their future pipeline of workers
- Small meetings, e.g., breakfasts, to persuade employers to provide job transportation for young people
- Practitioner roundtables to share successes in positive youth development related to transportation support

Action: Advocacy

The members of the Young Adult Initiative Board will put youth employment on the agendas of government, community leaders and employers and encourage young people to exercise leadership, advocating for themselves

There are limited opportunities at present for youth to have a voice in public policy debates. The YAIB will support leadership activities that encourage young people to become active citizens and speak out.

The members of the YAIB will ask community organizations, educators, and employers to develop strategies and programs that expand jobs for young people and work with state legislators, United States congressmen and senators and federal and state administrators to allocate the resources necessary to make a job available to every young person. YAIB member advocacy may take the following forms:

- Member networking, educating policy makers, community leaders and officials that they interact with in their jobs and in their communities about the importance of work for individual economic self-sufficiency and the value of work as a dropout prevention strategy
- Forums to educate employers and others that providing jobs to young adults is investing in their future pipeline of workers
- Summits to provide current data on school completion and employment and the impact on economic self-sufficiency later in life
- Small meetings, e.g., breakfasts, to persuade employers to provide jobs
- Practitioner roundtables to share successes in positive youth development

Action: Partners

The YAIB will support community partnerships that provide multiple pathways to education and employment

PSW, Inc. is the intermediary, bridging gaps among educators, community organizations, and employers. No one agency or funding source has the resources to ensure that young people are educated and have the opportunity to work. Solid working partnerships will increase the effectiveness and the efficiency of the youth services system by clarifying the network of resources available to youth people.

Action: Evaluation

To measure the impact of its strategies on youth employment, the YAIB will complete a self-evaluation on a bi-annual basis. Evaluation will include youth surveys and focus groups and use the data to improve the effectiveness of its investments in youth development and employment

Strategy Five. The Workforce Board

Increase the effectiveness and visibility of PSW

To fulfill its mission PSW must be an effective workforce development broker in Metro Southwest. The labor market in the United States is fragmented—a market in which there is no formal structure for the exchange of information about the labor market itself or for developing effective strategies to address labor market problems. It is a maze of agencies and organizations difficult to negotiate for its customers—business, industry, organized labor, workers and the unemployed. PSW fills that void.

PSW is a neutral broker, assuming several roles *not* assumed by economic development agencies, educational institutions, government and other non-profit agencies. The roles of PSW are:

- Facilitator, providing a forum in which business, organized labor, education, government and service organizations have a voice in the investment of public workforce development monies
- Labor market analyst, continually scanning the market to identify issues, e.g., structural change in the industry and occupational mix in the region, skills shortages, sluggish labor force growth, the increasing importance of foreign-born residents as a source of workers, youth unemployment and the plight of individuals with limited skills and education
- Advocate, seeking change in policies and labor force strategies in the state and the nation, and increasing public and private revenues available for workforce development
- Intermediary, bringing together public institutions and businesses to find and implement solutions to labor market problems and financing for those strategies
- Catalyst for change, supporting regional experiments designed to ensure that there is a skilled workforce available to business and that individuals' earnings increase

The Board's actions must increase community leaders', business', educators' and funders' understanding of the dynamics of the labor market in Metro Southwest, the impact of workforce shortages now and in the future, and sustainable options for reducing the skills gap.

Action

Continue to make decisions using the investment guidelines

PSW initiatives approved by the Board of Directors must meet the following criteria. If they do not, the initiative must be substantially revised and may not be continued.

- Outcomes are aligned with the mission, vision and strategies
- There is labor market demand, i.e., persistent and deep shortages of workers with the skills necessary to do the work
- There is an opportunity for substantial impact on individuals, families and industries
- Research supports the model or there is a plan to conduct the research to build the model
- No one in the region is doing the full model well
- There are partnerships or potential partnerships that would leverage PSW's resources
- There is the capacity and competence to execute, e.g., knowledge, funding, technology
- The impact on the organization as a whole is delineated. Will the initiative or program strengthen the organization or drain resources from existing initiatives or programs
- There is a clearly articulated action plan that includes (1) the resources of funding, staff time and other factors necessary to implement and (2) measurable benchmarks to assess progress in implementation

Action

Measure Investment Impact

PSW has developed metrics that will provide management information in two areas: initiatives and board operations. Aggregate data on initiatives includes:

- Customer description: age, gender, race, income status and education
- Services to individuals: enrollment
- Services to businesses: total number and industry breakdown
- Outcomes: program completion, internships, jobs, post-secondary education matriculation, wages at conclusion of service

Data on board operations includes:

- Financial: current revenue by source and percent of total revenue, projected revenue by source and status of fundraising efforts, total expenses necessary for PSW to operate and the percent of annual expenses covered, revenue for the current year compared to the previous year, cash flow projections and actual by month

- Visibility: monthly hits on PSW web site

PSW must demonstrate that its programs work. This should be accomplished through third-party evaluations that assess the extent to which the Board is realizing its vision of “economic opportunity for all residents” and the effectiveness of partnerships with business, education, community organizations and government agencies. Over the next three to five years, PSW will expand evaluation beyond the Technology Initiative and HCLN™ to include career centers and youth programming.

Action

Increase and Diversify the Revenue Base

PSW plans to raise in excess of \$1 million in fiscal year 2009 to increase its current revenue base of \$6.1 million. Both the Young Adult Employment Initiative and Employment and Training Resources will have revenue plans in place by June 30, 2009. In addition, the directors will explore the possibility of contracting with a development officer to shape and implement the revenue strategy. The search for funds will include, but is not limited to, the sources listed below.

Initiative	Revenue Goal	Sources
Board Development	\$100,000	<ul style="list-style-type: none"> •Boston Foundation Vision Fund •Business school graduate students •Bank line of credit
HealthcareWorks	\$500,000	<ul style="list-style-type: none"> •Prairie Avenue Revitalization Project •Extended Care Career Ladder Initiative •Nursing home and hospital payments •The Boston Foundation •Verizon Foundation
Technology Initiative	\$590,000	<ul style="list-style-type: none"> •State budget line item •Corporate fees for teacher externships •Corporate and foundation support for Saturday STEM Academy
Total	\$1,190,000	

Action

Reduce overhead costs by 2%

PSW staff will assess current operating expenses, identify areas where reductions would have the greatest impact, and develop and implement solutions. Overhead costs under consideration for potential cost cutting are financial management, communications and supplies.

Action

Build on existing relationships with the print media

The Board of Directors will meet with the editorial board of the *MetroWest Daily News* to plan a series of articles highlighting labor market issues and PSW’s strategies for addressing labor market challenges.

Action

Conduct a youth economic summit

PSW in partnership with the Commonwealth Corporation will conduct a youth summit to highlight the youth employment crisis and develop strategies to ensure that young people have the skills and support they need to succeed in the labor market.

Action

Continue to analyze the labor market and design initiatives to meet emerging needs

The Board will:

- Design and implement a study of the manufacturing industry in order to better understand the needs of the region's manufacturing firms, including emerging industries like nanotechnology, green companies, alternative energy and biotechnology. With the appropriate partners, PSW will develop a response to the industry's workforce needs¹⁴
- Continue to track major shifts in the labor market by making it a board agenda item when new data becomes available
- Revise the strategic plan to reflect new data and develop a work plan for FY10

Action

Produce a strategic plan for youth services

In FY09 and FY10, the Young Adult Initiative Board, formerly the Youth Council, will evaluate current activities, assess youth needs and produce two products—a business plan and an operations manual that establishes the way the YAEI conducts business. The sections of the business plan will be goals, target populations, service design, measures of success (metrics), evaluation, revenue plan and budget for fiscal year 2010.

¹⁴ The Board of Directors voted in February to put the study on hold in order to concentrate on stabilizing funding for the HCLNTM and the Technology Initiative.

Strategic Planning Participants

Partnerships for a Skilled Workforce, Inc.

Board of Directors

Chair

Mary Feeney, Partner
Bowditch & Dewey

Ed Bartley, Chief Financial Officer
Mass. State Lottery Commission

Gene Hornsby, Director of Strategic Sourcing
Assembly and Test
Worldwide Manufacturing
Analog Devices

Wayne Johnson, Dean of Corporate and
Community Education
MassBay Community College

Donna Kelleher, President
Next Generation Children's Centers

Rev. J. Anthony Lloyd, Pastor
Greater Framingham Community Church

Andre Mayer, Sr. VP of Communications &
Research
Associated Industries of Massachusetts

Tom O'Rourke, President
Newton Needham Chamber of Commerce

Mark Spengler, Human Resource Consultant
Boston University

Andris Vizulis, President
Mindspark, Inc.

Toni Wolf, Executive Director
Employment Options

Advisor

Peter Stipe, Director of Training
AAA Southern New England

Finance Committee

Chair

Ed Bartley, Chief Financial Officer
Mass. State Lottery Commission

Barbara Gonsalves, Partner
Quin, Rickard, Lipshires & Grupp, LLP

Barbara Kennedy, Branch Manager
Middlesex Savings Bank

Tom Meehan, President
Meehan Business Elements, Inc.

HealthcareWorks

Chair

Dan Michaud, VP for Human Resources
Women & Infants Hospital

Carolyn Blanks, VP, Labor & Workforce
Development
Massachusetts Extended Care Federation

Art Bowes, Senior Vice President
North Shore Medical Center

John Donlin, VP, Human Resources
Vanguard Health Systems
New England Market

Doris Ferullo, President
The Taylor Group, Inc.

Deb Rigiero, Associate Director/Organizer
Labor Relations Program
Massachusetts Nurses Association

Laurie Roberto, Executive Director
Ledgewood Rehabilitation and Skilled Nursing
Facility
Area Executive Director for Seacoast Nursing and
Rehab. in Gloucester

Technology Initiative Advisory Board

Dedric Carter, Asst. Dean for Development &
Strategic Initiatives
M. I. T.

Ranganath Nayak, CEO
Cytel Software Corporation

Isa Kaftal Zimmerman, Ed. D.
Senior Fellow, The PK-16 STEM
UMass President's Office
Academic Affairs and UMass Donahue Institute

Rob Richardson, East Coast Education Mgr.
Intel Massachusetts, Inc.

Juan Rodriguez, Principal
Fuller Middle School

Technology and Communications Practice

Vikas Taneja, Vice President and Director
Boston Consulting Group

Karen LeDuc, Assistant Superintendent
Natick Public Schools

John Manning, President
Camp, Dresser & McKee, Inc.

Career Center Partners Group

Chair

Ellie Rose, Career Center Director
Employment and Training Resources

Joan Cirillo, Executive Director
Operation A.B.L.E.

Jeffrey S. Handler, Ph.D., Deputy Director for
Community Development
South Middlesex Opportunity Council (SMOC)

Barbara Lee, Employment Specialist
Resource Partnership

Janice Ngau, Area Director
Mass Rehabilitation Commission

Michael Stepansky
Director of Housing and Employment
Department of Mental Health

Paul Sutliff, Director
Department of Transitional Assistance

Christine Tibor, Director
Framingham Adult ESOL+

Toni Wolf, Executive Director
Employment Options

Career Center Initiative Board

Chair

Mark Spengler, Human Resource Consultant
Boston University

Bob Merriam, HR Client Executive
Insight Performance Improvement

Christine Miller, Director of Finance &
Operations
Gann Academy

Community Review Participants

Marge Amster, Economic Development
Town of Brookline

Edy Anako, Director of Human Resources
Massachusetts Technology Collaborative

Cathy Ashton, Library Services & AFSCME
MassBay Community College

Ruth Balsler, State Representative
Commonwealth of Massachusetts

John Carroll, General Manager
Town of Norwood

Martin Cohen, President & CEO
MetroWest Community Health Care Foundation

Thomas Conroy, State Representative
Commonwealth of Massachusetts

Bernard Cooper, Assistant Manager
Town of Norwood

Jennifer D'Ercole, Business Services Representative
Employment & Training Resources

Mike Doak, Information Manager
Employment & Training Resources

James Eldridge, State Representative
Commonwealth of Massachusetts

John Fernandes, State Representative
Commonwealth of Massachusetts

Rod Flakes, IT OPS, Dept. of Mental Health

Commonwealth of Massachusetts

Lida Harkins, State Representative
Commonwealth of Massachusetts

Jean Hoskins, Assoc. Retail Marketing Manager
Rockport Company

Phil Jack, Selectman
Town of Ashland

Mike Jaillet, Town Administrator
Town of Westwood

Walter Johnson, Vice President
Capital Crossing

Wayne K. Johnson, Dean CCE
MassBay Community College

Jay Kaufman, State Representative
Commonwealth of Massachusetts

Kay Khan, State Representative
Commonwealth of Massachusetts

Peter Koutoujian, State Representative
Commonwealth of Massachusetts

Bruce Landolt, Career Advisor
Employment & Training Resources

Patricia Landry, Supervisor
Employment & Training Resources

David Linsky, State Representative
Commonwealth of Massachusetts

Paul Matthews, Executive Director
495/Metrowest Corridor Partnership

Jack McFeeley, Town Administrator
Town of Wrentham

Paul McMurtry, State Representative
Commonwealth of Massachusetts

Sue McQuaid, President/CEO
Neponset Valley Chamber of Commerce

Stephanie Mercandetti, Economic Development &
Grants Office
Town of Walpole

Paul Mina, President & CPO
United Way of Tri-County

Anne Whooley, Executive Director
Metro South/West Employment & Training

Tom O'Rourke, President
Newton Needham Chamber of Commerce

Alice Peisch, State Representative
Commonwealth of Massachusetts

Adam Ploetz, Mgr. of Sustainable Dev. Programs
495/Metrowest Corridor Partnership

Mark Purple, Assistant Town Manager
Town of Ashland

Patrick Reffett, Community Development Director
Town of Natick

Pamela Resor, State Senator
Commonwealth of Massachusetts

Pam Richardson, State Representative
Commonwealth of Massachusetts

Ellie Rose, Career Center Director
Employment & Training Resources

Tom Sannicandro, State Representative
Commonwealth of Massachusetts

Fahlino Sjuib, Economist/Faculty
MERC

Henry Soones, Manager
Employment & Training Resources

Karen Spilka, State Senator
Commonwealth of Massachusetts

Alison Steinfeld, Dir. of Community & Economic
Development
Town of Framingham

Jessica Strunkin, Mgr. of Public Policy & Public
Affairs
495/Metrowest Corridor Partnership

Andy Weader, Office Manager
MERC

Ted Welty, President/CEO
MetroWest Chamber of Commerce

**Partnerships for a Skilled Workforce, Inc.
Benchmarks for Fiscal Years 2013 and 2014**

Strategy One. Enhance the value of PSW's one-stop career centers to businesses and individuals

Action	Benchmarks
Expand services to businesses	<p>Increase the job placement rate from 4.4% to 6% of total entered employments</p> <p>Develop 20 new business accounts per quarter</p> <p>Market the Workforce Training Fund to three companies per quarter</p> <p>By the end of FY14, develop a business plan that gives priority to continuous improvement of services to employers as a means of increasing success in placing job seekers</p>
Target job seeker groups: Long-term unemployed	<p>By the third quarter of FY14 fully implement the team approach that will better meet the needs of the long-term unemployed</p>
Increase the stability of the revenue base	<p>Continue to successfully apply for National Emergency Grants</p>

Strategy Two. Reduce health care staffing shortages

Action	Benchmarks
Expand HCLN™	<p>Enroll 50 and graduate 25 DESE-funded adult learning center students in Marlborough, Framingham, Franklin, Bedford and Hudson-Maynard</p> <p>Continue enrolling 10 students per year in the nursing homes who are participants in the 1199SEIU Training and Advancement Fund</p> <p>Complete the evaluation of HLCN™ and produce the report by Fall 2013</p> <p>Prepare a plan for improving HCLN™ by the third quarter of FY14</p>

Strategy Three. Increase the STEM Pipeline

Action	Benchmarks
Information Technology Pathways to Prosperity	<p>Get commitment from Framingham High School, Keefe Technical School, and Bose Corporation, Boston TechNetwork, to assume leadership responsibility by Fall 2013</p> <p>Create planning and operations team of college and high school faculty, guidance, and employers by late fall 2013</p> <p>Complete the following by summer 2014: aligned IT curriculum; student assessment, career planning and support system; and employer engagement and tracking system</p>
Play leadership role in STEM Network	<p>Enroll 20 ninth graders in the IT Program, September 2014</p> <p>Participate in Metro West Network meetings</p>

Strategy Four. Increase young people's ability to succeed in the labor market

Action	Benchmarks
Build community capacity	<p>Add one youth vendor and support their ability to run Workforce Investment Act Youth Programs</p> <p>Engage 20 young people each year in the Marlborough Summer Youth Program</p> <p>Increase business engagement by three companies in the Young Adult Initiative Board (Youth Council)</p>
Place high school students in internships	<p>Through Connecting Activities and WIA youth programming, place 500 students per year in internships</p>

Strategy Five. Increase the effectiveness and visibility of PSW, Inc.

Action	Benchmarks
<p>Revise strategic plan</p>	<p>Complete labor market analysis by October 2013</p> <p>Identify labor market problems amenable to intervention by the board by mid-spring 2014</p> <p>Complete draft by June 2014</p> <p>Conduct community review and produce final plan by September 2014</p> <p>Vote on new plan at October Annual Meeting</p>
<p>Measure investment impact</p>	<p>Each quarter, assess career center and youth program performance</p> <p>Review annual dashboard report at a fall session of the Board of Directors</p>
<p>Increase and diversify the revenue base</p>	<p>A development committee has been appointed. Produce a revenue plan by spring 2014 for implementation in the latter quarter of the year and FY15</p> <p>Review dashboard reports for progress in meeting revenue goals</p>
<p>Build on existing relationships with the print media</p>	<p>MetroWest Daily News stories on the strategic plan</p> <p>At least two articles on youth programs each year</p>

Attachment 4.

**Partnerships for a Skilled Workforce, Inc.
Strategic Planning**

Goals

- Enhance the ability of the organization to establish direction and make investments in initiatives and programs by incorporating up-to-date labor market information into on-going decision-making processes.
- Increase the visibility of the organization by engaging business, community and government leaders in shaping the plan and the media in disseminating the results.

Objectives

- To reflect today's rapidly changing labor market, move from a "static" three-to-five year planning cycle to on-going labor market analysis and annual review of the plan.
- Produce a new strategic plan to be approved by the Board of Directors at the FY15 annual meeting.
- Create a formal, manageable process for incorporating labor market data on a continuous basis.

Annual Planning Sequence, FY14 and FY15

