Commonwealth Corporation strengthens the skills of Massachusetts youth and adults by investing in innovative partnerships with industry, education and workforce organizations. We seek to meet the immediate and emerging needs of businesses and workers so they can thrive in our dynamic economy. Commonwealth Corporation is a Massachusetts quasi-public corporation within the Executive Office of Labor and Workforce Development.

For more information about Commonwealth Corporation, please visit our website: www.commcorp.org.

The Commonwealth’s community colleges, state universities, and the University of Massachusetts are working jointly with the Massachusetts Department of Higher Education to advance the Vision Project, a strategic agenda to achieve new levels of excellence and accountability in public higher education. The central goal of the Vision Project is to lead the nation’s state systems of higher education in seven key educational and research outcomes, with the aim of producing “the best-educated citizenry and workforce in the nation.” In addition to campus-level strategies, the Vision Project provides an umbrella for several economic and workforce development programs managed by the DHE, including the Nursing and Allied Health Initiative, and encourages collaborations among education, business, philanthropy, and government partners to improve outcomes in these areas.

For more information about the Vision Project, please visit: www.mass.edu/visionproject. For more information about the Nursing and Allied Health Initiative, please visit: www.mass.edu/nursing.

Acknowledgements

The Massachusetts Healthcare Chartbook was funded by the Massachusetts Department of Higher Education through the Nursing and Allied Health Initiative. The authors would like to thank David Cedrone and Dale Earl for their leadership of this project and the Department of Higher Education’s Allied Health Working Group for their guidance. We would also like to thank Navjeet Singh for his vision in the creation of the Healthcare Chartbook.
MASSACHUSETTS
HEALTHCARE CHARTBOOK
2013

Pieta Blakely & Gene White, Commonwealth Corporation
# TABLE OF CONTENTS

Glossary.................................................................................................................................................................................6
Introduction .......................................................................................................................................................................................7
Chart 1. Number of Workers Employed by Sector...........................................................................................................................8
Chart 2. Change in Employment by Sector.........................................................................................................................................9
Chart 3. What is Included in the Healthcare and Social Assistance Sector ......................................................................................10
Chart 4. Proportion of Total Healthcare and Social Assistance Workforce Employed by Sub-sector .................................................11
Chart 5. Healthcare and Social Assistance Sector Group-Level Employment..................................................................................12
Chart 6. Healthcare and Social Assistance Sector Changes in Group-Level Employment.................................................................13
Chart 7. Healthcare and Social Assistance Sub-sectors Employment as a Share of Total Regional Employment ..............................14
Chart 8. Healthcare and Social Assistance Sub-sectors Employment as a Share of Total Workforce Investment Area Employment ........................................................................................................................................15
Chart 9. Share of Employees from Major Occupational Groups Working in the Healthcare and Social Assistance Sector and Share of Healthcare Occupations Working in Other Sectors ........................................................................................................17
Chart 10. Employment by Occupational Group In All Sectors ........................................................................................................18
Chart 11. Changes in Employment by Occupational Group In All Sectors ..........................................................................................19
Chart 12. Employment by Occupational Group in the Healthcare and Social Assistance Sector ..........................................................20
Chart 13. Changes in Employment by Occupational Group Within the Healthcare and Social Assistance Sector ..............................21
Chart 14. Employees in Healthcare and Social Assistance Sector By Occupational Group By Percent ..............................................22
Chart 15. Healthcare Practitioner and Technical Employees in Healthcare and Social Assistance Sector by Occupational Group ......................................................................................................................23
Chart 16. Distribution of Type of Work by Healthcare and Social Assistance Sub-sector ........................................................................24
Chart 17. Distribution of Healthcare and Personal Care Occupations by Healthcare and Social Assistance Sub-sector ..25
Chart 18. Employment of Healthcare and Social Assistance Workers by Minimum Required Education.................................26
Chart 19. Employment and Median Salary for Occupations Typically Not Requiring Post-Secondary Education..................27
Chart 20. Employment and Median Salary for Occupations Requiring a Certificate..........................................................28
Chart 21. Employment and Median Salary for Occupations Requiring an Associate’s Degree.............................................29
Chart 22. Employment and Median Salary for Occupations Requiring a Bachelor’s Degree ...............................................30
Chart 23. Employment and Median Salary for Occupations Requiring a Master’s Degree...................................................31
GLOSSARY

Sector - part of the economy characterized by similar industries
Sub-sector - a category of organizations with similar customers and services
Group - category of employers with similar workplace settings
Employer - legal entity that directs a worker
Occupation - a job or profession
Occupational Group - a category of professions characterized by similar responsibilities and qualifications
INTRODUCTION

The purpose of this updated edition of the Massachusetts Healthcare Chartbook is to inform workforce development professionals, educators, employers, and jobseekers about the status and recent history of Healthcare careers and the Healthcare and Social Assistance Sector in the Commonwealth.

In 2007 when the first Healthcare Chartbook was published, the Healthcare and Social Assistance Sector was the largest employer in the state, employing 15% of the entire workforce. The most remarkable characteristic of the Healthcare and Social Assistance Sector in the past five years is its robustness. As other sectors have lost thousands of jobs, the Healthcare and Social Assistance Sector has continued to grow, adding more than 40,000 workers. The Healthcare and Social Assistance Sector currently employs over 16% of all workers in the state.

The Healthcare and Social Assistance Sector employs workers in a variety of roles, including clinical and non-clinical occupations. Just over half of the workers in the Healthcare and Social Assistance Sector are in Healthcare Practitioner and Technical and Healthcare Support occupations. An additional 14% are in Community and Social Services and Personal Care. The remainder, 34%, are in non-direct roles such as management, finance, education, and facility management.

We anticipate that the size and structure of the Healthcare and Social Assistance Sector will change as the field transitions toward greater reliance on community-based care. It is too early to predict the nature of those changes.

The first part of this Chartbook provides an overview of the Healthcare and Social Assistance Sector with the goal of documenting recent changes in the field and the current staffing patterns in the Sector. The second part of the Chartbook focuses on Healthcare Occupations and the employment of individuals at a variety of educational levels.
Healthcare and Social Assistance has been the state’s largest industry since 1995. In 2011, the sector employed 531,448 workers, 50% more than the next largest sector, Retail Trade. Of a total of 3,191,064 workers in Massachusetts, more than 16% are employed in the Healthcare and Social Assistance Sector.
Since 2007, total employment in Massachusetts decreased from 3,236,120 to 3,191,604. The Manufacturing and Construction Sectors, in particular, lost large numbers of jobs while the Healthcare and Social Assistance Sector continued to grow, from 489,303 to 531,448 workers.
In addition to healthcare delivery sites such as hospitals and doctors’ offices, the Healthcare and Social Assistance Sector includes nursing and residential care and a range of social services including child care. The Healthcare and Social Assistance Sector is made up of four sub-sectors.

- The Ambulatory Care Sub-sector includes organizations that provide outpatient services: doctors’ and dentists’ offices, outpatient centers, home care services, and community health centers.

- Hospitals provide medical, diagnostic, and treatment services to inpatients or outpatients requiring specialized services. This sub-sector includes large general hospitals, small community hospitals, and specialized hospitals that provide services for specific medical conditions or populations.

- Nursing and Residential Care Facilities provide residential care to populations including the elderly, the mentally ill, those with substance use problems, or those requiring rehabilitative care.

- The Social Assistance Sub-sector provides an array of social services directly to clients. Those include shelters, child care, individual and family services, and vocational rehabilitation.

<table>
<thead>
<tr>
<th>Ammbulatory Care (Outpatient Care)</th>
<th>Hospitals (Inpatient Care)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groups</strong></td>
<td><strong>Groups</strong></td>
</tr>
<tr>
<td>Doctors’ Offices</td>
<td>General Hospitals</td>
</tr>
<tr>
<td>Dentists’ Offices</td>
<td>Other Hospitals</td>
</tr>
<tr>
<td>Home Care Services</td>
<td>Psychiatric Hospitals</td>
</tr>
<tr>
<td>Outpatient Care Centers</td>
<td></td>
</tr>
<tr>
<td>Other Health Practitioners</td>
<td></td>
</tr>
<tr>
<td>Other Ambulatory Care Services</td>
<td></td>
</tr>
<tr>
<td>Medical Laboratories</td>
<td></td>
</tr>
<tr>
<td>Community Health Centers</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nursing and Residential Care Facilities (Long-term Inpatient Care)</th>
<th>Social Assistance (Social Services)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Groups</strong></td>
<td><strong>Groups</strong></td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>Individual and Family Services</td>
</tr>
<tr>
<td>Residential Mental Health Facilities</td>
<td>Child Daycare Services</td>
</tr>
<tr>
<td>Community Residential Care Facilities</td>
<td>Vocational Rehabilitation Services</td>
</tr>
<tr>
<td>Other Residential Care Facilities</td>
<td>Emergency and Other Relief Services</td>
</tr>
</tbody>
</table>

This shows the distribution of employment by sub-sector within the Healthcare and Social Assistance Sector:

- Hospitals employ 196,554 people, 37% of the workers in the Healthcare and Social Assistance Sector and just over 6% of the state’s total workforce.

- The Ambulatory Health Care Services Sub-sector accounts for 159,548 jobs, 5% of the state’s total workforce.

- Nursing and Residential Care Facilities provide an additional 101,207 jobs, 3% of the state’s total workforce.

- Social Assistance, the smallest sub-sector, employs 74,139 workers, 2% of the total Massachusetts workforce.

Although the field has seen considerable growth, this distribution has remained stable over the last 20 years.
Within the Healthcare and Social Assistance Sector, employees work in a variety of settings, known as groups. General medical and surgical hospitals employ the largest number of workers, with almost three times as many workers as the second largest category, nursing care facilities and 32% of all the workers in the Healthcare and Social Assistance Sector:

<table>
<thead>
<tr>
<th>Group</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medical and Surgical Hospitals</td>
<td>58,882</td>
</tr>
<tr>
<td>Nursing Care Facilities</td>
<td>54,903</td>
</tr>
<tr>
<td>Offices of Physicians</td>
<td></td>
</tr>
<tr>
<td>Individual and Family Services</td>
<td>35,588</td>
</tr>
<tr>
<td>Home Health Care Services</td>
<td>30,564</td>
</tr>
<tr>
<td>Outpatient Care Centers</td>
<td>23,930</td>
</tr>
<tr>
<td>Child Day Care Services</td>
<td>23,110</td>
</tr>
<tr>
<td>Offices of Dentists</td>
<td>21,995</td>
</tr>
<tr>
<td>Residential Mental Health Facilities</td>
<td>20,394</td>
</tr>
<tr>
<td>Other Hospitals</td>
<td>18,472</td>
</tr>
<tr>
<td>Community Care Facility for the Elderly</td>
<td>16,371</td>
</tr>
<tr>
<td>Offices of Other Health Practitioners</td>
<td>15,397</td>
</tr>
<tr>
<td>Vocational Rehabilitation Services</td>
<td>9,427</td>
</tr>
<tr>
<td>Psychiatric &amp; Substance Abuse Hospitals</td>
<td>8,598</td>
</tr>
<tr>
<td>Other Ambulatory Health Care Services</td>
<td>7,821</td>
</tr>
<tr>
<td>Emergency and Other Relief Services</td>
<td>6,013</td>
</tr>
<tr>
<td>Other Residential Care Facilities</td>
<td>5,560</td>
</tr>
<tr>
<td>Medical and Diagnostic Laboratories</td>
<td>4,939</td>
</tr>
</tbody>
</table>

CHART 5. HEALTHCARE AND SOCIAL ASSISTANCE SECTOR GROUP-LEVEL EMPLOYMENT, 2011

Although the Home Health Care Services group is not one of the largest employers, it did see the highest rate of growth in the 2007 to 2011 period, adding more than 7,000 workers, representing an increase of one third over 2007 employment.

General medical and surgical hospitals grew by 5%, adding the largest number of workers, 9,063.
This chart shows employment in the Healthcare and Social Assistance Sub-sectors as a share of total regional employment, compared to the state and the nation. In Boston, the total percentage of employment in Healthcare and Social Assistance is larger than in the state or nation. In addition, a much larger share of Boston workers (15%) is employed in hospitals than in any other region of the state. Massachusetts generally employs a slightly larger percentage of its workforce in hospitals than in other Healthcare and Social Assistance Sub-sectors, compared to the United States as a whole.
The distribution of employment between the four sub-sectors varies widely by Workforce Investment Area. In Boston, hospitals make up the largest portion of healthcare sector employment, employing 15% of all Boston workers. Berkshire County has a larger portion of their workforce in the nursing and residential care sub-sector than do other parts of the state.
The Healthcare and Social Assistance Sector employs workers from almost every occupation. Occupations are combined into occupational groups. Most individuals in healthcare occupations work in the Healthcare and Social Assistance Sector. For example, 79% of Healthcare Practitioner and Technical workers are in the Healthcare and Social Assistance Sector. However, 3% are in Professional and Technical Services and 9% are in Public Administration.

Individuals from a range of occupational groups are also represented in the Sector. For example, 11% of all Management workers in the state are in the Healthcare and Social Assistance Sector and 3% of workers in Computer and Mathematical occupations are employed in the Healthcare and Social Assistance Sector.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>All Occupations</th>
<th>Healthcare Practitioner &amp; Technical</th>
<th>Healthcare Support</th>
<th>Community &amp; Social Services</th>
<th>Management</th>
<th>Computer &amp; Mathematical</th>
<th>Education</th>
<th>Food Prep &amp; Serving</th>
<th>Building and Grounds</th>
<th>Personal Care &amp; Service</th>
<th>Administrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of this occupation in:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthcare and Social Assistance</td>
<td>16%</td>
<td>79%</td>
<td>86%</td>
<td>65%</td>
<td>11%</td>
<td>3%</td>
<td>9%</td>
<td>6%</td>
<td>11%</td>
<td>31%</td>
<td>15%</td>
</tr>
<tr>
<td>Professional and Technical Services</td>
<td>3%</td>
<td>1%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative and Waste Services</td>
<td>1%</td>
<td>4%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational Services</td>
<td>4%</td>
<td>2%</td>
<td>13%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Services, Ex. Public Administration</td>
<td>0%</td>
<td>2%</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Administration</td>
<td>9%</td>
<td>3%</td>
<td>16%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>2%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statewide, healthcare occupations are not the largest category of employment. Combined, healthcare occupations - Healthcare Practitioners and Technical occupations, Healthcare Support occupations, and Personal Care and Service occupations - employ 404,970 workers.
While most occupational groups lost employment, Healthcare Practitioners and Technical occupations, Healthcare Support, and Personal Care and Service occupations all added workers.
Almost all occupational groups are represented in the Healthcare and Social Assistance Sector. The largest number of workers in Massachusetts is in Office and Administrative Support occupations. Within the Healthcare and Social Assistance Sector that group is third, following Healthcare Practitioners and Technical Services and Healthcare Support occupations.
Within the Healthcare and Social Assistance Sector, employment increased in almost every occupational group. For some occupations that saw a decrease in employment since 2007, employment increased within the Healthcare and Social Assistance Sector. For example, the total number of Office and Administrative Support workers decreased by 177,140 overall, but employment in this occupation within the Healthcare and Social Assistance Sector increased by 1,400.

The Healthcare and Social Assistance Sector employs many different types of workers in many different capacities. About half of the people who work in the sector perform healthcare jobs or belong to “healthcare occupations”, whether professional (requiring at least an associate’s degree) or healthcare support workers (requiring a certificate of completion of a job-training program). Healthcare professionals include registered nurses (RNs), licensed practical nurses (LPNs), physicians, surgeons, diagnostic medical sonographers and respiratory therapists while the healthcare support worker group comprises occupations such as certified nurses’ assistants (CNAs), home health aides, medical assistants, and dental assistants. The other half of the healthcare industry is comprised of non-healthcare occupations, such as administrative workers, managers, daycare teachers, social service workers, and food preparation workers.
Focusing on the Healthcare Practitioner and Technical occupations, we see that Registered Nurses (RNs) make up the single largest occupational group in the Healthcare and Social Assistance Sector. Healthcare Practitioners and Technical occupations include occupations such as Physical and Recreational Therapists, Laboratory Technicians and Radiologic Technicians.
The following chart shows the distribution of specific healthcare occupations in the Healthcare and Social Assistance Sub-sectors.

The distribution of employees is dramatically different across sub-sectors. In the Ambulatory Care, Hospital and Nursing and Residential Care Sub-sectors, Healthcare Practitioner and Healthcare Support staff make up over 50% of the workers. In the Social Assistance Sub-sector, they make up less than 10% of workers. Organizations in the Hospitals and Ambulatory Care Sub-sectors employ a larger percentage of Healthcare Practitioners and Technical Workers while the Nursing Care Sub-sector employs a larger percentage of Healthcare Support workers.
The sub-sectors also vary widely in their employment of Healthcare Practitioner and Support staff. For example, 12% of the workers in Ambulatory Care settings are physicians. The fraction of the staffs in the Nursing and Residential Care and Social Assistance Sub-sectors who are physicians is negligible.
The Bureau of Labor Statistics (BLS) provides information about education and training requirements for many occupations. BLS assigns the typical education level required to enter an occupation. Many workers will have a higher educational level at entry. Some will attain additional educational credentials while they are employed in the occupation. Here, we show the number of Massachusetts workers in occupations that have been identified as requiring that level of education as a minimum entry requirement.

**CHART 18. EMPLOYMENT OF HEALTHCARE AND SOCIAL ASSISTANCE WORKERS BY MINIMUM REQUIRED EDUCATION**

These percentages do not sum to 100 because the occupations requiring Doctorates are omitted.
The Bureau of Labor Statistics reports that there are many occupations that do not formally require any education beyond high school. However, our analysis of the workforce in Massachusetts shows that many of the workers have some post-secondary education. The majority of these occupations pay less than the state median wage.

CHART 19. EMPLOYMENT AND MEDIAN SALARY FOR OCCUPATIONS TYPICALLY NOT REQUIRING POST-SECONDARY EDUCATION

CHART 20. EMPLOYMENT AND MEDIAN SALARY FOR OCCUPATIONS REQUIRING A CERTIFICATE

State median wage for all occupations, $42,730

CHART 21. EMPLOYMENT AND MEDIAN SALARY FOR OCCUPATIONS REQUIRING AN ASSOCIATE’S DEGREE

State median wage for all occupations, $42,730

CHART 22. EMPLOYMENT AND MEDIAN SALARY FOR OCCUPATIONS REQUIRING A BACHELOR’S DEGREE

State median wage for all occupations, $42,730

CHART 23. EMPLOYMENT AND MEDIAN SALARY FOR OCCUPATIONS REQUIRING A MASTER’S DEGREE

**Employment**

- Medical & Public Hlth Social Workers: 2,000
- Mental Health Counselors: 620
- Occupational Therapists: 4,710
- Rehabilitation Counselors: 4,440
- SpeechLanguage Pathologists: 3,620
- Physician Assistants: 3,000
- Health Practitioners, All Other: 1,370
- Marriage and Family Therapists: 1,290
- Counselors, All Other: 620
- Total: 9,970

**Median Salary**

- Medical & Public Hlth Social Workers: $51,700
- Mental Health Counselors: $39,100
- Occupational Therapists: $35,940
- Rehabilitation Counselors: $31,780
- SpeechLanguage Pathologists: $30,800
- Physician Assistants: $24,000
- Health Practitioners, All Other: $20,870
- Marriage and Family Therapists: $13,660
- Counselors, All Other: $10,400
- Total: $128,370

**State median wage for all occupations, $42,730**

For more information:

http://www.hwic.org
http://masspulse.org
https://masscis.intocareers.org
https://www.vcn.org/healthcare
http://westernmasshealthcareers.org