



GREATER BOSTON REGIONAL BLUEPRINT

MassHire Boston Workforce Board
MassHire Metro North Workforce Board
MassHire Metro South/West Workforce Board

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Table of Contents

Regional Planning Process	2
Greater Boston Regional Planning Steering Committee.....	2
Business Engagement	2
Greater Boston Regional Planning Vision	5
Greater Boston Regional Planning Mission.....	5
Greater Boston Shared Strategies	5
Communication.....	5
Shared Measurement Systems	6
Mutually Reinforcing Activities	6
Regional Context.....	7
Critical Trends	7
Industry Demand	7
Greater Boston Priority Industries	12
Occupational Demand	13
Workforce Supply	19

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Regional Planning Process

Massachusetts is divided into 16 Workforce Development Areas (WDA), which were combined into seven larger regions for this workforce planning exercise. This blueprint discusses the results of the labor supply analysis for the Greater Boston region, which includes the three WDAs of Boston, Metro North, and Metro South/West. The respective workforce development boards (WDBs) of each WDA led this project. They are the Boston Private Industry Council (PIC)/MassHire Boston Workforce Board, the MassHire Metro North Workforce Board, and the MassHire Metro South/West Workforce Board, respectively. The three WDBs updated the Greater Boston Region’s previous Blueprint to reflect the current labor market.

The WDBs will convene a group of regional education, workforce, and economic development stakeholders to review the updated blueprint, solicit ideas, and obtain consensus on priorities for the region and measurable targets to assess progress.

Greater Boston Regional Planning Steering Committee

Individual Name	Individual Title	Organization Name
Angela McCabe	Director of Workforce Development	MassHire Boston Workforce Board
Chris Albrizio-Lee	President	MassHire Metro North Workforce Board
Dr. David Podell	President	MassBay Community College
Greg Bunn	Executive Director	MassHire Metro South/West Workforce Board
Jason Palitsch	Executive Director	495/MetroWest Partnership
Joe McLaughlin	Director of Research and Strategy	Boston Private Industry Council
Neil Sullivan	Executive Director	Boston Private Industry Council

Business Engagement

Each WDB engages industry partners in many ways; the primary method for developing this blueprint has been through local industry convenings. These convenings strengthen collaboration among employers, workforce development agencies, and educational institutions to enhance the alignment between education/training pathways and future employment opportunities

The Boston Healthcare Career Consortium

The MassHire Boston Workforce Board convenes the Boston Healthcare Careers Consortium (HCC), which brings together stakeholders from employers, educators, workforce system partners, and community organizations to promote healthcare-related education and training opportunities for job seekers and current employees that are efficient, effective, and align with industry needs. As a regional industry partnership led by employers, the Consortium stakeholders collaborate to develop workforce

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

solutions that address barriers to quality jobs and career advancement. The leaders and various members of the HCC have participated in the regional planning process and have identified priority careers within the sector.

Regional STEM Networks

The MassHire Boston Workforce Board and MassHire Metro North Workforce Board facilitate their area's local STEM Network. The STEM Network serves as a hub for connecting educators, community leaders, and industry partners to cultivate interest and engagement in STEM activities and STEM subjects. In addition to administering regional projects in the area, including a calendar of events during the State's annual STEM Week, the MassHire Boston and Metro North Workforce Boards meet regularly with all the Commonwealth's Regional STEM Networks and the STEM Advisory Council and communicate information about funding opportunities, events, announcements, and training sessions.

Greater Boston IT Convening

The TechHire Boston convening is an IT/Tech collaborative, comprised of leading technology and IT professionals, focused on developing a diverse talent pipeline. TechHire Boston builds a broader awareness in the high schools through a pilot of Tech Apprentice Signal Success curriculum and Tech Apprentice summer jobs. The TechHire Advisory Group worked with the Greater Boston Regional planning group to review the LMI and helped prioritize the jobs/careers for the 3-year regional plan.

Northeast Advanced Manufacturing Consortium

MassHire Metro North Workforce Board is one of four workforce boards that leads the Northeast Advanced Manufacturing Consortium (NAMC), engaging manufacturing employers to facilitate registered apprenticeships, develop employment opportunities in a variety of occupations in the manufacturing sector, and stay attuned to the needs of the industry. NAMC facilitates a Business Leadership Team that meets 2-3 times a year to discuss trends and needs in the manufacturing industry and receive feedback on training programs and investments. Though manufacturing is not one of Greater Boston region's prioritized industries, it is an industry of focus in the Metro North and Metro South/West areas.

Gaming and Hospitality

In partnership with the City of Boston, the Metro North WDB leads a regional consortium focused on career pathways in the gaming industry and the hospitality sector generally. While Encore Boston Harbor and its workforce needs were the consortium's original focus, the initiative aims to serve the greater hospitality sector throughout Metro Boston. The consortium now funds ESOL classes and vocational training.

Behavioral Health Strategic Planning

From 2022-2023, the Metro South/West Workforce Board, convened 11 community-based behavioral health employers to participate in a yearlong strategic planning process to identify priorities for the region's behavioral health workforce. Through regular meetings, the group reviewed labor market

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

information, participated in qualitative group and individual interviews, and gained input from subject matter experts. Additionally, UMass Donahue Institute was commissioned to benchmark the current state of the behavioral health workforce in Greater Boston. Data from this report indicates significant projected growth in several behavioral health occupations over the next decade, namely: services for elderly and people with disabilities (58%), residential mental health and substance abuse (53%), and psychiatric and substance abuse hospitals (49%).

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Greater Boston Regional Planning Vision

The vision for the Greater Boston region is to cultivate a workforce that is not only sufficient but also well-prepared and well-educated in high-demand fields. We aim to establish clear educational and training pathways from K-12 to higher education that align with priority industries. These pathways will be accessible to all residents, with a particular focus on ensuring access for vulnerable and disadvantaged groups. This approach ensures that individuals in these fields can earn livable wages, with benefits and opportunities for career advancement, while employers can readily find the skilled talent needed for their growth and success.

Greater Boston Regional Planning Mission

The mission of the Greater Boston Regional Planning Initiative is to coordinate the education, industry, and workforce development efforts within our region to realize our vision. To achieve this, we will focus on:

- Aligning workforce development and education (K-12 and beyond) to be responsive to the labor market by reducing skill gaps in high-demand fields
- Influencing business and policy decisions to enact system changes that will allow traditionally underrepresented and under-resourced populations to address inequalities in the workforce, education, and employment.
- Leveraging existing training programs and implementing new culturally appropriate programs that will ensure consistency of work readiness skills in our workforce.
- Connecting employers and workforce development initiatives to organizations with access to critical resources such as assistance for housing, transportation, childcare etc.
- Integrating residential development and regional transit planning with workforce needs.

Greater Boston Shared Strategies

Communication

The three Workforce Development Boards meet biweekly to review our regional planning activities and performance in real-time. These meetings allow for group brainstorming, partnership development, resource alignment, funding implementation and effective reporting. This also allows us to meaningfully communicate progress with the stakeholders in each of our workforce development areas.

In addition to the biweekly meetings of the WDBs, we commit to bringing together a steering committee comprised of representatives from workforce, education, and economic development to guide the convening of regional planning stakeholders. All stakeholders will be convened at least 3 times a year.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Shared Measurement Systems

To ensure we are progressing towards our goals and vision, we rely on various data and measurement systems. Key resources include the Department of Economic Research, Lightcast, the UMass Donahue Institute, and U.S. Census Bureau data. Additionally, we use MOSES data for tracking ITAs and closely track regional grant funding and awards aligned with our region's priorities.

We anticipate leveraging the state's upcoming occupational data tool, which will reveal supply/demand gaps. Monitoring this tool will enable us to assess whether these gaps are closing over time, providing valuable insights into our overall impact.

Mutually Reinforcing Activities

To ensure that the work each partner is doing is supportive of the common mission and vision, we have described activities that regional partners have committed to below:

Education Partners

- Propose and develop college programs in IT and Healthcare
- Provide career awareness and exploration activities to high school and early college students to inform them of career paths in priority areas
- Ensure Pre-K through 16 expectations and coursework are aligned
- Explore strategies to improve college math readiness of high school graduates
- Increase access to ESOL for K-12 students

Workforce Development

- Embed these goals and strategies into existing Healthcare and IT industry initiatives
- Target workforce development initiatives to address shortages in specific healthcare support positions.
- Focus funds under the control of WDBs on chosen sector occupations (i.e. ITAs – Training vouchers)
- Focus Youth Works (publicly-funded internships) and connecting activities (employer-paid internships) on jobs in chosen sectors/occupations and career awareness activities
- Increase access to ESOL for adult learners

Economic Development

- Support innovative solutions to last mile services
- Support coordination of transit services across jurisdictions and providers
- Advocate for transportation and land use policies aligned with plan objectives
- Coordinate with State agencies (MOBD, Mass Development, MTCs, Digital Health, etc.) on employer retention, expansion, and attraction initiatives

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Regional Context

Critical Trends

The Greater Boston region faces an aging population, high rates of domestic out-migration, and uncertainty around the longer-term trend in international migration.

- In Massachusetts' the share of the population that will be 65 and older is projected to increase five percentage points from 17% to 22% between 2020 and 2030 (Massachusetts Taxpayers Foundation, 2023). As a result, the state's working-age population (16 to 64 years of age) has been declining since 2018. As more of the baby boom generation retires, the state will face challenges in finding the workers to fill openings left behind.
- The Greater Boston region and the state of Massachusetts lose more residents to other states than we gain from them, resulting in negative domestic migration population change. The rate of domestic out-migration has increased since 2014 and rose further during the pandemic. Many of the lost residents are young workers from Suffolk and Middlesex counties who could be contributing to the regional workforce (Massachusetts Taxpayers Foundation, 2023).

International migration fell sharply between 2017 and 2021 and then declined further during the COVID-19 pandemic shutdowns and border restrictions (Massachusetts Taxpayers Foundation, 2023). The cumulative effect of multiple-year declines contributed to the state and region's decrease in population in recent years (before the more recent upticks). Recently, the state has had a surge in international migrants, yet, the longer-term trend for international migration remains uncertain.

There are several demographic developments that will have impacts on the workforce over the coming decade:

- The region's population is aging and will lose substantial numbers of workers to retirement. Many of those workers exiting for retirement are highly educated and will leave roles that require substantial work experience and skill.
- The state's teenage and 20-24-year-old population are projected to decline over the next decade due to the baby bust years following the Great Recession. This means that there will be fewer workers available to employers to meet growth needs and replace those retiring (MassINC, 2023)
- On the education front, college enrollment declined sharply during the pandemic (DESE). This could be the first time in the state's history that its younger, prime-age workers have lower levels of educational attainment compared to its older workers who are exiting the workforce. This will worsen talent shortages in many industries (MassINC).

Industry Demand

In this section, we examine total private sector employment and industry sector employment trends for the Greater Boston region. Specifically, we analyzed changes in private-sector employment using the Quarterly Census of Employment Wages data from the EOLWD. To assess recent and longer-term trends, we tracked changes for the two periods over the past decade below:

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

- 2013 to 2019Q2: This period captures growth during the economic expansion to near its peak in the spring of 2019 (April-June); before the COVID-19 pandemic and ensuing job losses in the following year.
- 2019Q2 to 2023Q2: This period captures employment changes from before the COVID-19 pandemic and the ensuing economic recession through the economic recovery and expansion to date in 2023.

At the time this analysis was conducted, the 2023Q2 data were the most recent available. To have a comparison that was not influenced by seasonal variations in employment, we compared employment levels in 2023Q2 to the same period in 2019. Employment fell sharply in the second quarter of 2020 due to the economic downturn at the start of COVID-19 pandemic, so the 2019Q2 period provides a pre-pandemic comparison in this analysis.

The Greater Boston region is comprised of three workforce development areas (WDAs): Boston, Metro North, and Metro South/West. From 2013 to 2019Q2, private sector employment in the region grew strongly as the economy recovered from the Great Recession and the job loss that followed. Over this six-year period, Greater Boston’s private sector employment increased by over 187,000 jobs, representing a 14 percent increase. Boston’s employment grew by nearly 90,000 (+17.5%). Metro North gained 63,000, representing an increase of nearly 18 percent. Metro South/West gained over 34,000 jobs, a 7 percent increase (Table 1).

Table 1:

Private Sector Employment Change in Greater Boston Region Over the Past Four Years

Workforce Development Area	2013	2019Q2	Change, 2013-2019Q2	Percent Change, 2013-2019Q2
Metro South/West	492,819	527,315	34,496	7.0%
Boston	509,741	599,177	89,436	17.5%
Metro North	355,352	418,498	63,146	17.8%
<i>Greater Boston Region</i>	1,357,912	1,544,990	187,078	13.8%

Source: Quarterly Census of Employment and Wages (QsCEW)

With the onset of the COVID-19 pandemic and economic shutdowns in March 2020, the region lost many jobs in spring 2020. Employment began increasing in the summer of 2020 and has continued to rise steadily and sharply through 2023.

In Table 2, we compare employment levels in the region as of 2023Q2 (the most recent quarterly data available) to 2019Q2. Over these four years, private sector employment in the Greater Boston region grew by 0.5% or 8,372 jobs, surpassing pre-pandemic employment levels. However, employment changes varied across the three WDAs. Boston’s employment grew by 13,310 jobs or 2.2 percent. Metro North followed with a growth of 6,910 jobs, an increase of 1.7 percent. Employment in the Metro

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

South/West region remained nearly 12,000 jobs below its level in 2019Q2 due to substantial job losses in the spring of 2020 and a slower employment recovery to date (Table 2).

Table 2:

Private Sector Employment Change in Greater Boston Region Over the Past Four Years

Workforce Development Area	2019Q2	2023Q2	Change, 2019-2023	Percent Change, 2019-2023
Metro South/West	527,315	515,405	-11,910	-2.3%
Boston	599,177	612,487	13,310	2.2%
Metro North	418,498	425,470	6,972	1.7%
<i>Greater Boston Region</i>	<i>1,544,990</i>	<i>1,553,362</i>	<i>8,372</i>	<i>0.5%</i>

Source: Quarterly Census of Employment and Wages (QCEW)

We analyzed private sector employment change across 2-digit NAICS industry sectors for these same two time periods over the past 10 years.

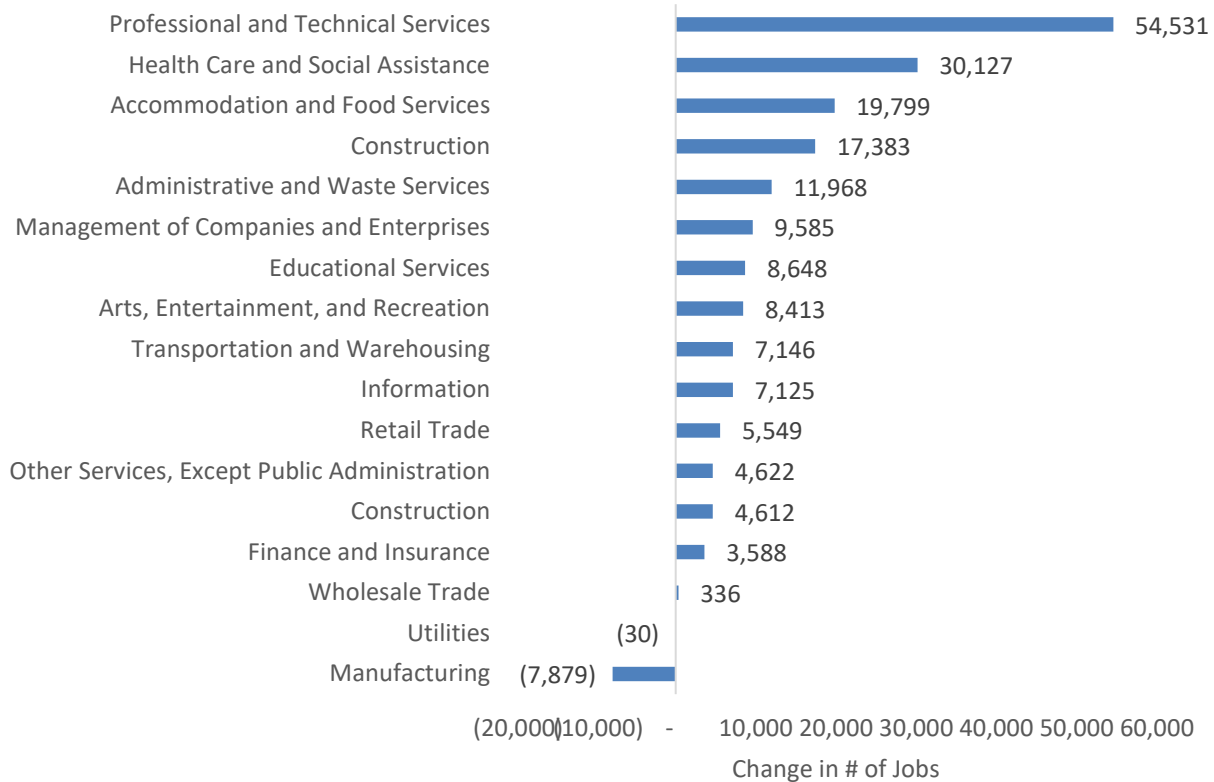
From 2013 to 2019Q2, most sectors added jobs in the region (Chart 1). The top 3 industry sectors ranked by private sector jobs gained were: professional and technical services (+54,531), healthcare and social services (+30,127), accommodation and food services (+19,800), and construction (+17,383).

Manufacturing and utilities were the only two sectors to experience employment declines.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Chart 1:

Private Sector Employment Change By Industry Sector, Greater Boston, 2013 to 2019Q2



Source: Quarterly Census of Employment and Wages (QCEW)

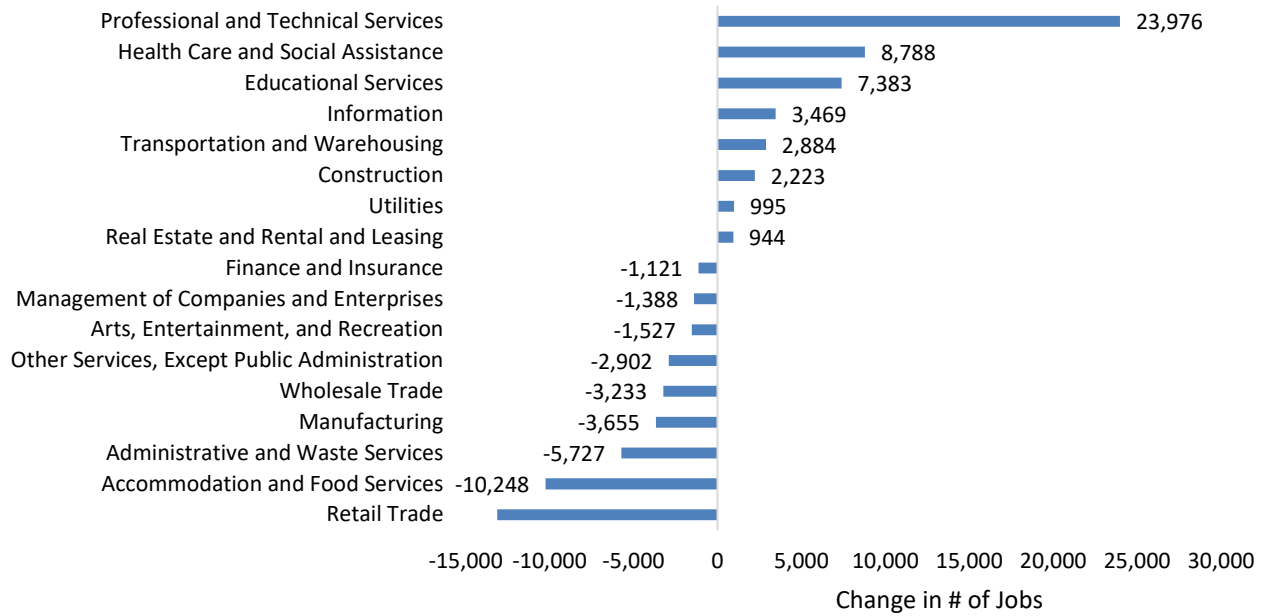
In the Greater Boston region, private sector employment level changes varied more substantially across 2-digit NAICS industry sectors over the past four years (Chart 2). The top 3 industry sectors, ranked by jobs gained, were professional and technical services (+23,976), healthcare and social assistance (+8,788), and education (+7,383, mostly higher education). The information sector (+3,469), which includes software publishing, came in fourth; followed by transportation and warehousing (+2,884), construction (+2,223), utilities (+995), and real estate services (+944).

The four sectors that lost the most jobs were retail trade (-13,120); accommodation and food service (-10,248); administration and waste services (-5,727), which includes temporary help firms and agencies; and manufacturing (-3,655). These four sectors experienced substantial job losses during the pandemic and have yet to regain their pre-pandemic levels.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Chart 2:

Private Sector Employment Change by Industry Sector, Greater Boston, 2019Q2 to 2023Q2



Source: Quarterly Census of Employment and Wages (QCEW)

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Greater Boston Priority Industries

Using the regional labor market data tool and employment data available from the Executive Office of Labor and Workforce Development (EOLWD), the regional planning team identified two industry sectors that are most important to the region's economic success. They are:

- NAICS 62: Healthcare and Social Assistance
- NAICS 54: Professional and Technical Services – specifically the 5415- Computer Systems and Design Services industry. However, the computer/IT occupations that are prioritized for the region are critical needs throughout multiple industries within NAICS 54 and across many other industries.

These two sectors are the two largest in terms of employment in the Greater Boston region, with nearly 281,000 jobs in Healthcare and Social Assistance and over 268,000 in Professional and Technical Services. They also rank 1st and 2nd based on employment level change over the past four years and the decade. Combined, they accounted for nearly 550,000 jobs in the region in 2023, representing 35 percent of all payroll employment in Greater Boston. This 35 percent share of private sector employment is up five percentage points from 2016, when these sectors accounted for 30 percent of employment.

In healthcare, we continue to prioritize healthcare practitioners and technical occupations, with a focus on those that require less than a bachelor's degree. Due to increased demand, we have expanded the occupation list within this sector to include behavioral health specialists who work for healthcare organizations, and community and social services organizations that would be classified in the Social Assistance industry (NAICS-624).

Critical Industries and Clusters

In addition to these sectors, there are several other industries and emerging and growing industry clusters that are crucial to the Greater Boston region's economy and the state's overall economic competitiveness. These include **life sciences, clean energy/climate tech, the creative economy, construction, advanced manufacturing, and educational services.**

Parts of these industry clusters overlap with the Healthcare and Social Assistance and Professional and Technical Services industries. The state's Department of Economic Research has also identified another key industry/occupational cluster, referred to as "Advanced Services", which includes science, engineering, and technology-intensive services. Many of these would fall within the Professional and Technical Services industry sector and have been a driver of employment growth in Greater Boston for the past two decades. We've added educational services to this revised blueprint to reflect the need to expand and diversify the STEM teacher pipeline with a particular focus on the credentials needed to teach specialized computer/IT and health sciences courses at both the secondary and postsecondary levels. In both of the priority occupational areas, our community college partners have informed us of the challenges in recruiting for health science and computer/IT teaching positions because the community college's compensation is not competitive with private sector wages.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Occupational Demand

Employment growth in the Professional and Technical Services industry has contributed to a strong demand for highly skilled workers in STEM roles and managerial positions. Job postings in the region often require at least a bachelor's degree for consideration, with a rising number requiring a master's or higher. In the Healthcare and Social Assistance sector, there are notable job opportunities at various education and skill levels. However, many lower-paying healthcare support roles are encountering severe worker shortages.

The region also faces challenges with an aging workforce retiring and slowing labor force growth, contributing to worker shortages across many industries, including those not experiencing strong net employment growth. Due to these demographic trends, there is increasing demand for workers in blue-collar occupations, such as manufacturing, and service industries, from retail to restaurants and food services.

To identify occupations with the greatest employment demand over the next 10 years, we used the Department of Economic Research's Regional Occupation Explorer to generate a list of occupations with projected annual openings that exceed 1,000 per year from 2020 to 2030. These openings include projected growth and openings from workers leaving the occupation for another job or retirement. This does not reflect annual growth in the number of employees but rather a combination of growth and replacement needs.

Table 3:

Occupations With More Than 1,000 Projected Annual Openings in Greater Boston Region, 2020-2030

Occupation Title	Typical Education Required	Projected Annual Openings
General and Operations Managers	Bachelor's degree	6,872
Software Developers	Bachelor's degree	6,612
Home Health and Personal Care Aides	High school diploma or equivalent	5,345
Customer Service Representatives	High school diploma or equivalent	3,867
Management Analysts	Bachelor's degree	3,590
Registered Nurses	Bachelor's degree	3,154
Accountants and Auditors	Bachelor's degree	2,907
Office Clerks, General	High school diploma or equivalent	2,563
Security Guards	High school diploma or equivalent	2,478
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High school diploma or equivalent	2,434
Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	2,220
Market Research Analysts and Marketing Specialists	Bachelor's degree	2,213
Nursing Assistants	Postsecondary non-degree award	2,191
Financial Managers	Bachelor's degree	2,100

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	2,037
First-Line Supervisors of Office and Administrative Support Workers	High school diploma or equivalent	1,995
First-Line Supervisors of Food Preparation and Serving Workers	High school diploma or equivalent	1,811
Computer and Information Systems Managers	Bachelor's degree	1,668
Project Management Specialists	Bachelor's degree	1,661
Human Resources Specialists	Bachelor's degree	1,575
Medical Secretaries and Administrative Assistants	High school diploma or equivalent	1,537
Maintenance and Repair Workers, General	High school diploma or equivalent	1,529
Business Operations Specialists, All Other	Bachelor's degree	1,445
Medical and Health Services Managers	Bachelor's degree	1,381
Marketing Managers	Bachelor's degree	1,355
Medical Scientists, Except Epidemiologists	Doctoral or professional degree	1,347
Lawyers	Doctoral or professional degree	1,334
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High school diploma or equivalent	1,309
Sales Managers	Bachelor's degree	1,282
Light Truck or Delivery Services Drivers	High school diploma or equivalent	1,270
Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	1,266
First-Line Supervisors of Retail Sales Workers	High school diploma or equivalent	1,255
Receptionists and Information Clerks	High school diploma or equivalent	1,227
Childcare Workers	High school diploma or equivalent	1,209
Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	1,144
Teaching Assistants, Except Postsecondary	Some college, no degree	1,139
Computer User Support Specialists	Some college, no degree	1,101
Carpenters	High school diploma or equivalent	1,076
Biochemists and Biophysicists	Doctoral or professional degree	1,046
Computer Systems Analysts	Bachelor's degree	1,032

Source: Massachusetts Department of Economic Research, Regional Occupation Explorer

Based on the state's occupational employment projections and Lightcast job posting data, we determined that computer and information technology occupations, nursing, several mid-skilled healthcare occupations, and healthcare support roles face the most significant employee shortages. **It is important to note that many other occupations will be considered in each local workforce development area (Metro North, Metro South/West, Boston) for local training grants and career pathway development.** This list below is the focus for regional efforts that cut across all three WDBs. At the 5-digit level, they mostly fall under these eight groups below:

- Computer and Information Analysts (SOC: 15-1120)
- Software Developers and Programmers (SOC: 15-1130)
- Database Administrators and Network Architects (SOC: 15-1140)
- Computer Support Specialists (SOC: 15-1150)
- Registered Nurses (SOC: 29-1140)

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

- Respiratory Therapists (SOC: 29-1126)
 - Health Technologists and Technicians (SOC: 29-2000)
 - Nursing, Psychiatric, and Home Health Aides (SOC: 31-1000)
 - Counselors, Social Workers, and other social services specialists (SOC: 21-1000).
- *See Appendix A for more details on specific occupations that are being considered.

There are entry-level occupations in computer/IT fields, healthcare support, and behavioral health that offer pathways to higher-wage careers with additional training/certifications. Examples of career pathways in these fields are shown in Appendix B. Through the regional planning process and the convenings mentioned previously, we intend to strengthen pathways for upward mobility in partnership with employers and training and educational organizations. We believe a key component of this strategy will be to support opportunities to train more STEM teachers so that high schools and colleges can expand course offerings and program capacity in our priority computer/ IT and health professions pathways. Diversifying the STEM teaching workforce is also critical to young people see themselves in these fields.

We have generated lists of computer/IT occupations (Table 4) in high demand and Healthcare and Social Assistance roles (Table 5) in the tables below. The annual completions column in each table refers to certificates and degrees awarded by postsecondary institutions in the region. The Massachusetts Department of Economic Research accesses these completions from the Integrated Postsecondary Education Data System (IPEDS) and crosswalks the field of study for each degree to aligned occupations. These completion estimates are not intended to be a comprehensive measure of labor supply.

Table 4:

Computer/ IT Occupations in High Demand

Occupation	Typical Education Requirement	Median Annual Salary	Annual Openings	Annual Completions	Supply Gap
Software Developers	BA	133,924	6,612	2,534	(4,078)
Computer and Information Systems Managers	BA	170,131	1,668	1,562	(106)
Computer User Support Specialists	Some College	70,579	1,101	1	(1,100)
Computer Systems Analysts	BA	109,321	1,032	244	(788)
Software Quality Assurance Analysts and Testers	BA	111,230	579	424	(155)
Network and Computer Systems Administrators	BA	106,286	406	164	(242)
Information Security Analysts	BA	128,991	406	97	(309)
Computer Network Architects	BA	164,379	356	184	(172)
Computer Programmers	BA	113,106	257	131	(126)

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Data Scientists	Master's	113,020	214	1,029	815
Database Administrators	BA	119,980	206	90	(116)
Computer Network Support Specialists	AA	83,730	183	62	(121)
Computer Hardware Engineers	BA	140,011	174	70	(104)
Database Architects	BA	141,475	133	136	3
Computer and Information Research Scientists	Master's	138,231	126	92	(34)

Source: Massachusetts Department of Economic Research's Regional Occupation Explorer

Note: Annual completions are based on certificates and degrees awarded by postsecondary institutions in the region.

To identify occupational priorities in the healthcare field, we will review the list of occupations below with employers and training partners. Except for nursing, these occupations typically require some postsecondary education, but less than a 4-year degree. Each has a projected supply gap, though some appear to be only slightly under-supplied.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Table 5:

Healthcare Occupations

Occupation	Typical Education Requirement	Median Annual Salary	Annual Openings	Annual Completions	Supply Gap
Registered Nurses	Associate's / Bachelor's degree	\$103,654	3154	3591	437
Nursing Assistants	Some Postsecondary	\$40,283	2191	31	-2160
Medical Assistants	Some Postsecondary	\$46,795	888	238	-650
Licensed Practical and Licensed Vocational Nurses	Some Postsecondary	\$66,513	455	72	-383
Dental Assistants	Some Postsecondary	\$54,942	442	52	-390
Radiologic Technologists and Technicians	Associate's degree	\$83,477	230	70	-160
Veterinary Technologists and Technicians	Associate's degree	\$43,271	154	0	-154
Medical Equipment Preparers	High school diploma or equivalent	\$51,815	152	4	-148
Emergency Medical Technicians	Some Postsecondary	\$48,523	135	8	-127
Medical Records Specialists	Some Postsecondary	\$57,509	132	26	-106
Health Technologists and Technicians, All Other	High school diploma or equivalent	\$50,570	115	25	-90
Diagnostic Medical Sonographers	Associate degree	\$98,193	96	13	-83
Surgical Technologists	Some Postsecondary	\$64,300	92	13	-79
Respiratory Therapists	Associate's degree	\$83,393	90	1	-89
Magnetic Resonance Imaging Technologists	Associate degree	\$104,591	74	2	-72
Paramedics	Some Postsecondary	\$61,015	71	4	-67
Psychiatric Technicians	Some Postsecondary	\$39,336	71	27	-44
Cardiovascular Technologists and Technicians	Associate degree	\$84,788	58	1	-57
Healthcare Diagnosing or Treating Practitioners, All Other	Some Postsecondary	\$86,195	50	32	-18
Health Information Technologists and Medical Registrars	Some Postsecondary	\$56,996	37	9	-28

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Ophthalmic Medical Technicians	Some Postsecondary	\$59,481	35	0	-35
Surgical Assistants	Some Postsecondary	\$39,778	29	2	-27
Medical Transcriptionists	Some Postsecondary	\$38,576	28	0	-28
Healthcare Practitioners and Technical Workers, All Other	Some Postsecondary	\$90,136	21	13	-8

Source: Massachusetts Department of Economic Research's Region Occupation Explorer

Note: Annual completions are based on certificates and degrees awarded by postsecondary institutions in the region.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Workforce Supply

For both industries, Professional and Technical Services and Healthcare and Social Assistance, the top workforce development challenges, include:

- Worker shortages in several occupations, specifically in computer/IT positions within Professional and Technical Services, and a wide array of positions in healthcare. The reasons for the shortages include the aging workforce and increased retirements; misalignment between the skills of jobseekers and in-demand jobs; and the high cost of living in Greater Boston and Massachusetts, which is driving workers out of state and making it less attractive to move to this region.
- In healthcare, where many of the jobs are in person, the burdens of high housing costs and transportation challenges are greater because working remotely or hybrid is not an option for many roles. The lack of work schedule flexibility is a factor that workers cite when leaving the healthcare industry to pursue other career options.
- The high cost of housing, childcare, and difficult commutes make it challenging to recruit workers from other areas and out-of-state to move to Greater Boston.
- Public higher education programs cannot increase seat capacity fast enough to respond to short-term workforce shortages and there are gaps in labor supply and demand data which could better inform longer-term planning and program alignment within and across regions of the state.
- In Healthcare and Social Assistance, low reimbursements from state and private health insurance make it difficult to raise pay rates to attract more workers; thus, workers are taking jobs in other industries that offer higher wages.

The three broad labor supply challenges for Greater Boston's priority occupations and career pathways are:

- The aging workforce and increased retirements
- Slow population growth due to low birth rates, high domestic out-migration, and lower levels of foreign immigration from 2017-2022. The region's high cost of housing and transportation challenges are factors that affect the rate of out-migration and loss of younger families to other states.
- Declining college enrollment and substantial race-ethnic disparities in college completion.

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Workforce Strategy for Priority Occupations. Describe your *shared* goals, strategies and metrics for 2024 and 2025 for the prioritized occupations and career pathways in the region. Note that goals listed here should be ones that cannot be accomplished without participation of players from multiple entities and across two or three of the systems. **The Workforce Skills Cabinet will work with Team to support their work to achieve the goals for priority occupations below and review progress through quarterly reports on 2024 and 2025 targets.**

Priority Occupation	Regional Pipeline Strategy	Partners	2023 Annual Baseline Estimate # of New Entrants* to Occupation	TARGET: 2024 Goal for # of New Entrants to Occupation (Estimated) resulting from strategy	TARGET: 2025 Goal for # of New Entrants to Occupation (Estimated) resulting from strategy
<i>Occupation 1</i>	<i>Increase the baseline number of new HVAC certified / licensed workers to reach 500 a year by 2025.</i>	XXXXX	230	400	500
	TBD				

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Appendix A:

Behavioral Health Occupations Analysis

In 2023, the University of Massachusetts Donahue Institute (UMDI) developed a study benchmarking the state of the behavioral health sector in the Greater Boston region. The tables below are excerpted from that document. The data shows that behavioral health occupations in Greater Boston are expected to grow over the next decade by approximately 11,000 jobs, outpacing the state in growth projections.

Table 1: Behavioral Health Industries in the Greater Boston Region

NAICS	Description	2012 Jobs	2022 Jobs	2032 Jobs	2012 - 2022 % Change	2022 - 2032 % Projected Change
624120	Services for the Elderly and Persons with Disabilities	6,401	18,109	28,558	183%	58%
624190	Other Individual and Family Services	8,758	8,043	10,805	-8%	34%
623220	Residential Mental Health and Substance Abuse Facilities	2,444	5,610	8,592	130%	53%
621330	Offices of Mental Health Practitioners (except Physicians)	2,052	5,178	6,875	152%	33%
622210	Psychiatric and Substance Abuse Hospitals	2,132	2,880	4,282	35%	49%
623210	Residential Intellectual and Developmental Disability Facilities	2,653	2,824	3,374	6%	20%
621420	Outpatient Mental Health and Substance Abuse Centers	2,205	2,207	2,769	0%	25%
624110	Child and Youth Services	2,689	1,827	2,472	-32%	35%
621112	Offices of Physicians, Mental Health Specialists	878	1,148	1,515	31%	32%
	Totals	30,211	47,827	69,243	58%	45%

Source: Lightcast, UMDI Analysis

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Table 2: Top Behavioral Health Occupations with Projected Growth in the Greater Boston Region, 2022-2032

SOC	Description	Typical Entry Level Education	Median Annual Earnings	Net new jobs 2022-2032	Total projected job openings 2022 - 2032 <i>*Includes replacement jobs from turnover</i>
21-1018	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	Bachelor's degree	\$51,516	1,974	8,637
21-1012	Educational, Guidance, and Career Counselors and Advisors	Master's degree	\$79,592	1,403	6,109
21-1093	Social and Human Service Assistants	High school diploma or equivalent	\$38,142	1,164	6,966
21-1022	Healthcare Social Workers	Master's degree	\$64,360	679	4,720
19-3039	Psychologists, All Other	Master's degree	\$106,950	654	2,495
11-9151	Social and Community Service Managers	Bachelor's degree	\$74,506	598	2,962
21-1021	Child, Family, and School Social Workers	Bachelor's degree	\$50,847	596	3,421
21-1023	Mental Health and Substance Abuse Social Workers	Master's degree	\$51,938	581	2,677
21-1019	Counselors, All Other	Master's degree	\$64,282	404	1,331
21-1015	Rehabilitation Counselors	Master's degree	\$50,590	358	1,860

Source: Lightcast, UMDI Analysis

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Table 3: Top Posted Behavioral Health Occupations from Job Postings in 2022 in Greater Boston*

Occupation (SOC)	Unique Job Postings in 2022 *
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	3,477
Educational, Guidance, and Career Counselors and Advisors	3,453
Social Workers, All Other	1,602
Healthcare Social Workers	1,594
Social and Human Service Assistants	1,360
Social and Community Service Managers	1,316
Psychiatrists	1,045
Health Education Specialists	1,019
Counselors, All Other	971
Mental Health and Substance Abuse Social Workers	954
Clinical and Counseling Psychologists	947
Marriage and Family Therapists	916
School Psychologists	910
Child, Family, and School Social Workers	896

Source: Lightcast, UMDI Analysis

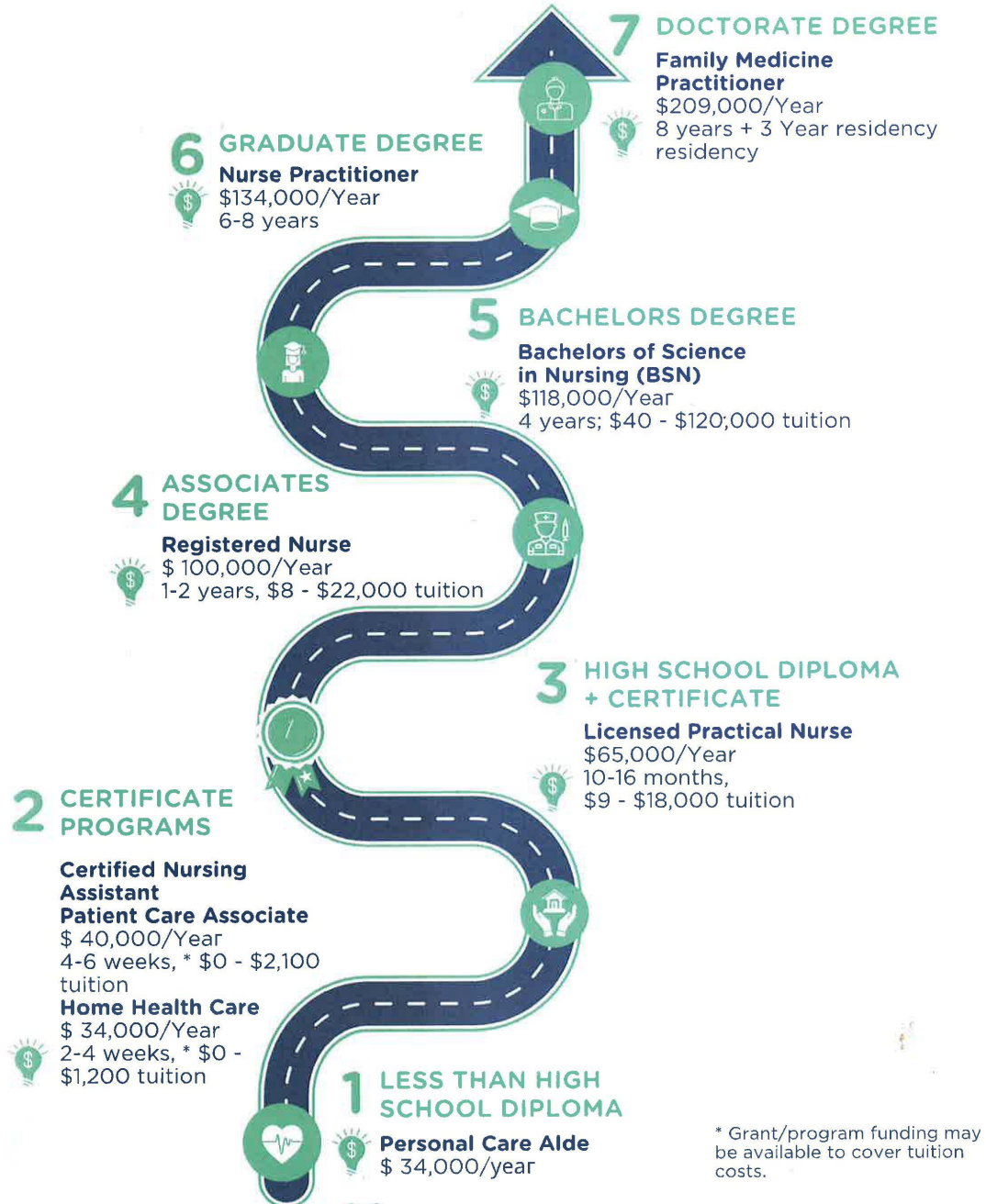
*Job postings data for Middlesex, Norfolk, and Suffolk Counties

GREATER BOSTON FY 2024 REGIONAL PLANNING BLUEPRINT

Appendix B:

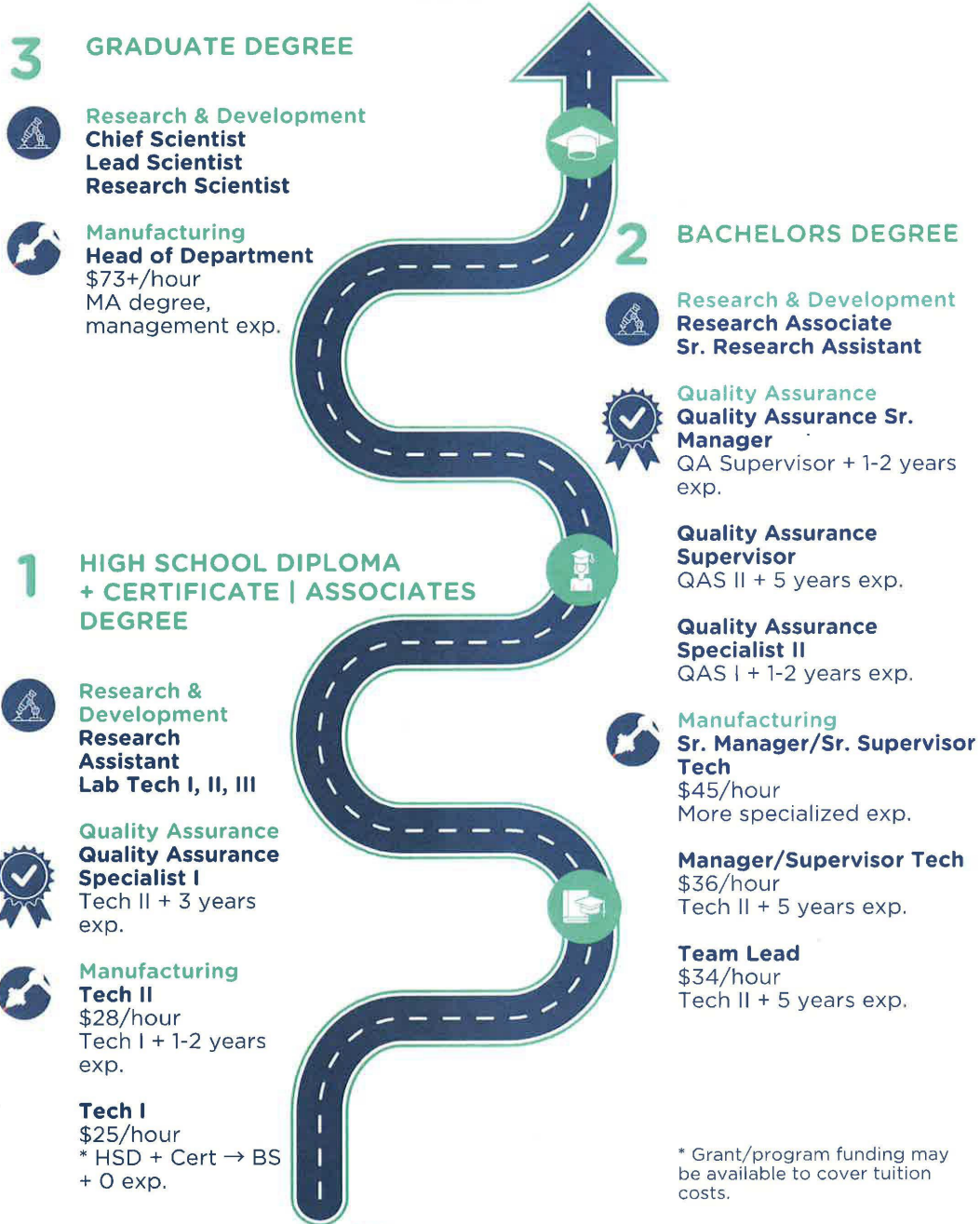
Career Pathway Examples

Pathways in Healthcare Caregiving



75 Federal Street, 3rd Floor • Boston, MA 02110 617.399.3100 www.MasshireDowntownBoston.org

Pathways in Biotechnology



75 Federal Street, 3rd Floor • Boston, MA 02110 617.399.3100 www.MasshireDowntownBoston.org

Pathways in Early Childcare Educator



* Grant/program funding may be available to cover tuition costs.

