



Pioneer Valley Labor Market Blueprint

2024-2028

**A Regional Planning Initiative of the
Massachusetts Workforce Skills Cabinet**

REGIONAL PLANNING

CHAPTER 2. LOCAL PROVISIONS

SEC. 106 WORKFORCE DEVELOPMENT AREAS

- 1) **REGIONAL PLANNING.** —The local boards and chief elected officials in each planning region described in subparagraph (B) or (C) of subsection (a)(2) shall engage in a regional planning process that results in—
- (A) the preparation of a regional plan, as described in paragraph (2);
 - (B) the establishment of regional service strategies, including use of cooperative service delivery agreements;
 - (C) the development and implementation of sector initiatives for in-demand industry sectors or occupations for the region;
 - (D) the collection and analysis of regional labor market data (in conjunction with the State);
 - (E) the establishment of administrative cost arrangements, including the pooling of funds for administrative costs, as appropriate, for the region;
 - (F) the coordination of transportation and other supportive services, as appropriate, for the region;
 - (G) the coordination of services with regional economic development services and providers; and
 - (H) the establishment of an agreement concerning how the planning region will collectively negotiate and reach agreement with Governor on local levels of performance for, and report on, the performance accountability measures described in section 116(c), for local areas or the planning region.

Workforce Innovation and Opportunity Act (WIOA) – July 22, 2014

The **Pioneer Valley Labor Market Blueprint 2024-2028** is a part of the on-going implementation of the Regional Planning Goals and Strategies codified in the **Pioneer Valley Labor Market Blueprint-2018-2022, and UPDATED Blueprint (2020)** and produced by the MassHire Workforce Boards of Hampden and Franklin Hampshire Counties (Region 2).

The Region 2 MassHire Workforce Boards currently receive technical guidance and funding for Regional Planning from the **Workforce Skills Cabinet** representing the Massachusetts Executive Offices of Labor and Workforce Development, Education, Economic Development, and Health and Human Services.

Pioneer Valley Labor Market Blueprint 2024-2028

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INTRODUCTION

Across Massachusetts, economic growth is constrained by a labor shortage while jobseekers are looking for work. Bridging the gap between the skills and experience of individuals and the needs of the employers seeking to hire is critical for the continued economic expansion and competitiveness of the Commonwealth.

The MA Workforce Skills Cabinet, comprised of the Executive Offices of Education, Labor and Workforce Development, Health and Human Services, and Economic Development, directs a strategy and implementation plan to ensure that job seekers and incumbent employees can obtain and continuously enhance their skills and knowledge to meet the varying employment demands of employers in the Commonwealth.

Working under the tenets of the federal Workforce Innovation and Opportunity Act (WIOA), the Cabinet guides a state-wide regional planning process that resulted in producing the **Pioneer Valley Labor Market Blueprint 2024-2028**. The Blueprint will guide the work of regional partners to address talent gaps and needs by focusing on the following:

- Coordinate and Leverage a Variety of Regional Workforce Efforts
- Improve Connectivity Between Employers
- Develop New Regional and State Level Strategies and/or Align Existing Regional and State-Level Resources

The **Pioneer Valley Labor Market Blueprint 2024-2028** uses data and evidenced-based research to drive and support collective decision-making going forward. The Blueprint identifies goals and strategies to be accomplished in 2024-2028 and articulates shared commitments by the regional CORE Planning Team to ensure effective execution, communication, measurement, and evaluation of the anticipated outcomes and deliverables.

The Pioneer Valley region is strong and its economic outlook looks very promising. The regional partnership is committed to implementing coordinated, sustainable, and bold actions that will drive regional economic expansion, increase job opportunities, and strengthen businesses, communities, and families.

Please share any thoughts and ideas that will assist the regional partnership in the work ahead. Over the next several months, we may be contacting you to request your active engagement in implementing selected goals and strategies in the **Pioneer Valley Labor Market Blueprint 2024-2028**.

OVERVIEW

The **Pioneer Valley Labor Market Blueprint 2024-2028** continues our intentional and coordinated regional approach to addressing the Supply Gap that exists in the Region's priority industries and priority occupational groupings

The Pioneer Valley CORE Planning Team, consisting of representatives from workforce development, economic development, educational institutions, regional planning, business and industry, and other stakeholders in Franklin Hampshire and Hampden Counties, have been meeting to update the current Pioneer Valley Labor Market Blueprint.

The Team assessed post-pandemic employment demand moving forward and the need to provide services to the individuals who are disconnected from the labor force. The Team focused on the following areas:

- Analyzed Updated Regional Labor Market Demand and Supply Data
- Reviewed the Outlook of Current Priority Industries and Occupations Moving Forward
- Revised the **Criteria** and **Mutually Reinforcing Activities** in the 2018 Blueprint and 2020 Updated Blueprint

The **Pioneer Valley Labor Market Blueprint 2024-2028** can be viewed on the web sites of the MassHire Franklin Hampshire Workforce Board at <https://www.masshirefhwb.org/.org/> and the MassHire Hampden County Workforce Board Inc. at <http://masshirehwb.com/>.

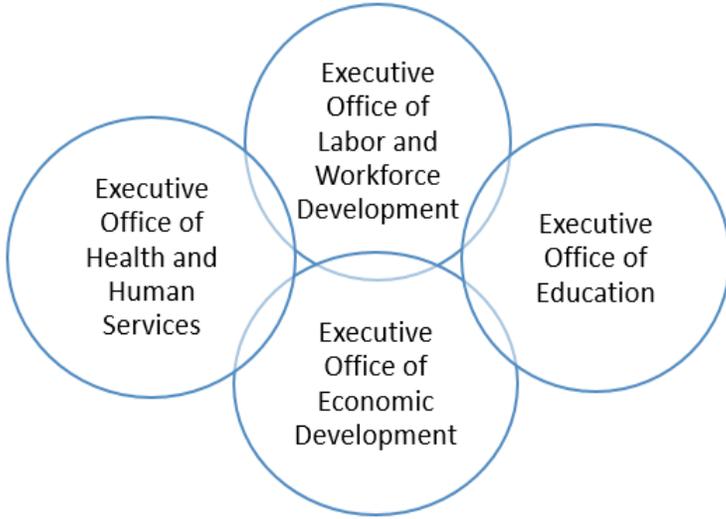
CONTACT INFORMATION

For additional information on the **Pioneer Valley Labor Market Blueprint-2024-2028**, please contact Sarah Wilson at 413-774-4361 or sarahwilson@masshirefhwb.org or Peter J. Farkas at 413-755-1362 or pfarkas@masshirehwb.com

For information on the MA Workforce Skills Cabinet, please visit their web site at <https://www.mass.gov/orgs/workforce-skills-cabinet>.

WIOA Regional Planning

Workforce Skills Cabinet



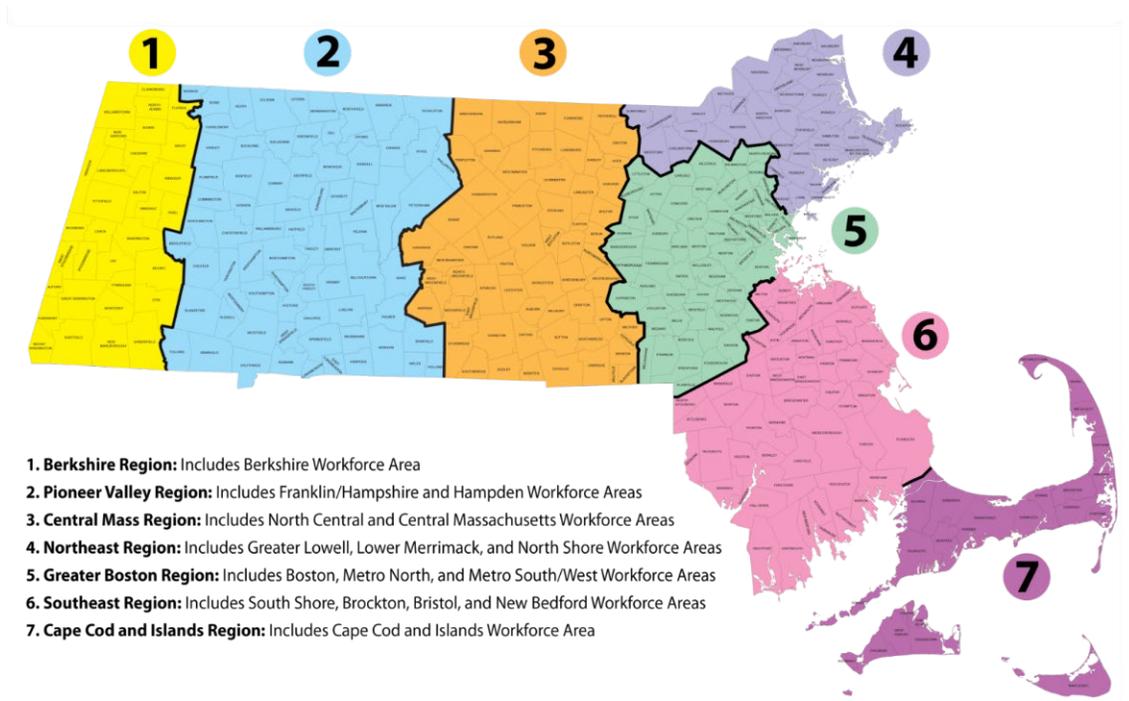
State-Level Engagement

Regional Planning Core Team



Regional Stakeholder Engagement

Region #2: Pioneer Valley



Executive Summary

Process

The Pioneer Valley CORE Planning Team directed the development of the Pioneer Valley Labor Market Blueprint 2024-2028 (“Blueprint”). The CORE Planning Team is convened and facilitated by the two Pioneer Valley MassHire Workforce Boards. The CORE Team consists of members appointed by the Workforce Skills Cabinet Secretary’s and representatives from business and industry who represent the regions priority and other critical industries, and community partners who bring additional assets to the strategic planning function of the CORE Planning Team. The business and industry and community partners are selected by the two Region 2 MassHire workforce boards with input from and approval of the CORE Planning Team.

In 2019, the CORE Planning Team constituted three (3) Regional Planning Work Groups- Educator Work Group, Data Team, and Employer Advisory Committee. Representatives from each of the Work Groups provided guidance and recommendations to the MassHire Workforce Boards and the CORE Team in the development of the 2024-2028 Blueprint. The Workforce Boards codified the data and information and developed the final Blueprint implementation goals, strategies, timetables, and action steps. The MassHire workforce boards will direct and manage the implementation, oversight, and evaluation of the 2024-2028 Blueprint and will communicate progress, challenges, and accomplishments directly to the CORE Planning Team and the Work Groups on a regularly scheduled basis as detailed in the Blueprint.

SHARED VISION STATEMENT

The Region 2 CORE Planning Team, using statewide and regional **CRITERIA**, will provide strategic direction and guidance to a coordinated and integrated regional eco-system that will design and implement an array of programming and services to businesses and job seekers that will accelerate job creation, improve job retention, mitigate documented Supply Gaps in regional priority occupations, create regional economic expansion, and build strong communities.

Mission Statements

Education: Regional education partners will collaborate with workforce and economic development partners to assess regional education/training infrastructure and capacity to deliver innovative instruction in priority occupations utilizing various delivery modes.

Workforce Development: Regional workforce partners will create an effective, evidence-based regional workforce system that partners with businesses, educational institutions, community based organizations, and governmental agencies to meet the hiring demands of employers and provide job seekers with training and/or job matching to secure and retain quality employment positions.

Economic Development: Regional economic development partners will work with a network of regional stakeholders to promote Region 2 as a bellweather location for siting new companies and growing existing business operations that will accelerate job creation and contribute to economic expansion.

Health and Human Services: Regional health and human services partners will collaborate with regional workforce and economic development partners to assist and empower low-income individuals and families to meet their basic needs, improve their quality of life, and achieve long term economic self-sufficiency.

SHARED MISSION STATEMENT

Workforce development, economic development, health and human resources, and education in the Pioneer Valley Region function as a strategic, integrated and evidenced-based system that effectively responds to current and future employer demand, and creates high quality and sustainable employment opportunities and career pathways for job seekers and incumbent workers that result in a skilled workforce and regional economic growth.

Priority Industries

The top three industries the Pioneer Valley Regional Planning Team considers most important to the region's economic success are as follows:



1. **Healthcare and Social Assistance**

Region 2's largest source of career employment, due to the presence of major acute care hospitals, medical practices affiliated with the acute care providers, community-based health care and social assistance providers, an expanding behavioral health network, and a significant number of long-term care and assisted living facilities.



2. **Manufacturing (Advanced)**

The presence of publically traded Original Equipment Manufacturers (OEM's) and a significant number of Small and Medium Size Enterprises (SMSs) that conduct business in an integrated manufacturing eco-system and supply chain.



3. **Educational Services**

The presence of a significant number of secondary and post-secondary institutions including the UMass-Amherst flagship campus. State data indicated that Educational Services is the second most in-demand priority regional industry. Regional data at Pre K-12 was especially supportive in critical needs fields at all levels.

Priority Occupations

The 2024-2028 Blueprint is focused on the following three (3) Priority Occupational Groupings:

1. **Healthcare and Social Assistance Occupational Grouping**

-  Medical Assistant
-  Emergency Medical Technician
-  Nursing Assistant
-  Social and Human Service Assistants (Behavioral Health)
-  Clinical Laboratory Technicians (Varied) (Registered Apprenticeships)
-  Patient Care Technician

2. **Manufacturing (Advanced) Occupational Grouping**

-  Production Worker- Computer Numerical Control(CNC) Operator
-  Production Worker- Machinist (Including Computer Numerical Control Machinist)
-  Inspectors, Testers, Quality Control
-  Front Line Manufacturing Production Supervisors

3. **Educational Services Occupational Grouping**

-  Teacher Assistants/Paraprofessionals
-  Childcare Workers –Infant → Pre-K

Pioneer Valley Labor Market Blueprint 2024-2028

I. Introduction

Describe the process of creating a regional plan.

Regional Planning Team. Describe the different partner organizations brought together to be a part of the Regional Planning Team (K-12 District, Vocational Technical School, Community College, State University, Workforce Development Board, Massachusetts Office of Business Development, Regional Economic Development Organization, Regional Planning Authority, health and human service employer or other key employers, and more).

Name	Title	Organization Name
Jessica Atwood	Director of Planning	Franklin Regional Council of Governments
Rebecca Bialecki	Executive Director	MassHire Franklin Hampshire Workforce Board
Dr. John Cook	President	Springfield Technical Community College
David M. Cruise	President & CEO	MassHire Hampden County Workforce Board
Stefan Czapowski	Superintendent	Westfield Public Schools
Jennifer Brown	Senior Manager	Masis Staffing Solutions
Jeffrey P. Hayden	Vice President, Business and Community Services	Holyoke Community College
Linda Dunlavy	Executive Director	Franklin Regional Council of Governments
David Gadaire	President & CEO	MassHire Holyoke Career Center
Maura Geary	Executive Director	MassHire Franklin Hampshire Career Center
Eric Hagopian	President	Pilot Precision Products
Dr. Michelle Schutt	President	Greenfield Community College
Kevin Lynn	Executive Director	MassHire Springfield Career Center
Anne S. McKenzie	Superintendent	Hadley Public Schools
Tim Rooke	Special Assistant to President	Westfield State University
Shawn Willis	Asst. General Counsel-Labor Relations Manager	U. S. Tsubaki
Anne Kandilis	Director	Economic Development Council of Western MA
Kimberly Robinson	Executive Director	Pioneer Valley Planning Commission
Julian Tynes	Assistant Secretary	MA Department of Transportation
Vacant	TBD	MA Office of Business Development

Regional Planning Process. Briefly describe your region's process to develop a Labor Market Blueprint.

The Pioneer Valley CORE Planning Team, convened and facilitated by the two regional MassHire Workforce Boards, consists of representatives from workforce development, economic development, and education who were appointed by the respective Workforce Skills Cabinet (WSC) Secretaries. The CORE Team has been enhanced incrementally with representatives from business and industry who represent the regions priority and other critical industries, and community partners who bring additional assets to the strategic planning function of the CORE Planning Team. The business and industry and community partners are selected by the two Region 2 MassHire workforce boards with the input and approval of the CORE team. The CORE team has been meeting three (3) times annually since April 2019.

In 2019, the Workforce Boards constituted the following three (3) Regional Planning Work Groups that meet regularly and provide updates on the progress of the implementation of the Pioneer Valley Blueprint's Strategies and Goals:

Regional Planning Group	Function	Meeting Schedule
CORE Planning Team	Strategic Planning and Blueprint Development Guidance and Oversight	Three (3) Times Annually (April, August, November)
Employer Advisory Committee	Information on Industry Demand and Hiring Trends and Projections	With CORE Team-Three (3) Times Annually (April, August, November)
Educator Work Group	Representatives from Community Colleges, K-12. Guidance to CORE Team on Training Capacity, Training Programs, Blueprint Training Implementation	Two (2) Times Annually. Informal as Needed
Data Team	Regional, State Data Members who Collect and Analyze Demand and Supply Data to Inform CORE Team Decision Making	Three (3) Times Annually.

Figure 1

The Work Groups provide data, information, and recommendations to the MassHire workforce boards who provide Blueprint implementation timetables and action steps to the CORE Planning Team. All Regional Planning Work Group meetings have formal agendas and are conducted either remotely or in-person. Blueprint implementation, oversight, evaluation, and reporting are managed by staff from the MassHire workforce boards who report **directly** to the President & CEO/Executive Director of the respective regional workforce boards.

Since April 2019, the CORE Planning Team, through the **Educator Work Group**, have produced and disseminated to the partners referenced above the following Reports/Addendums that have informed the design and implementation of Blueprint activities and training programs:

1. **Summary of Educational Programs at the Vocational Technical High Schools, Community Colleges and Westfield State University- October 2019**
2. **Addendum to the Summary of Technical Programs at the Regional Community Colleges and Westfield State University- Program Enrollment and Enrollment vs. Program Capacity- March 2020**
3. **Addendum Review of Non-Credit Career Courses at the Community Colleges Related to the Healthcare and Social Assistance Industry- October 2020**
4. **Addendum to Summary of Technical Programs at the Regional Community Colleges and Westfield State University- Graduation Data and Employment Status- April 2021**
5. **Addendum Review of Adult Education Programs Region 2 UPDATE- April 2022**
6. **Advanced Manufacturing Workforce Development and Technology Adoption Report- August 2022**
7. **Second Addendum to Summary of Technical Programs at the Regional Community Colleges and Westfield State University- Program Enrollment and Enrollment vs. Program Capacity- February 2023**
8. **Addendum Review of Adult Education Programs Region2 UPDATE No. 2- November 2023**
9. **Western Massachusetts Nursing Collaborative Strategy Plan- 2024-2026- December 2023**

Business Engagement. Describe how you engaged business to develop your blueprint, including the number of businesses engaged, the industries businesses associate with, and the format of engagement your team employed.

The Pioneer Valley CORE Planning Team, convened and facilitated by the two regional MassHire workforce boards, constituted the **Employer Advisory Committee (EAC)** as a Work Group to the CORE Planning Team. The EAC includes representatives from business and industry who represent the regions priority and other critical industries. The Committee members are selected by the two Region 2 MassHire workforce boards with input and approval of the CORE team. The EAC meets jointly with the CORE team three (3) times annually.

Regional Planning Group	Function	Meeting Schedule
Employer Advisory Committee	Information on Industry Demand and Hiring Trends and Projections	With CORE Team-Three (3) Times Annually (April, August, November)

In addition, the **Healthcare Workforce Partnership of Western Massachusetts**, chaired and managed by MHCWB, has representatives from the regions seven (7) acute care systems, various community based health centers, and long-term care facilities. The Partnership’s three work groups- Western Massachusetts Nursing Collaborative, Allied Health Committee, and Pioneer Valley Inter-Professional Practice and Education Collaborative- meet regularly and provide critical guidance to the Blueprint development and implementation process in the Blueprint priority industry of **Healthcare and Social Assistance**.

II. Where are we now?
Describe the current state of your region, including an analysis of industries, occupations, demographic shifts, and gaps between employer demand and employee supply.

1) Regional Context
Utilize the information provided through state data sets and additional local analysis to highlight the region’s unique geography, communities, population growth/change, education demographics, workforce history, high-level industry trends, etc.

Describe critical trends in population changes over the next decade that may impact the workforce.

The critical trends in population and other data points are summarized below and detailed in the following Charts and Tables:

Figure 2- Pioneer Valley Region 2 Economy Overview¹

693,915 POPULATION (2023)	333,317 REGIONAL EMPLOYMENT (2023)	\$67,900 AVERAGE EARNINGS /JOB (2022)
Population Decreased by 4,159 Over The Last Five Years and Is Projected to Decrease by 5,434 Over the Next 5 Years.	Jobs Decreased by 7,401 Over the Last Five Years but are Projected to Grow by 29,515 Over the Next 5 Years.	Regional Average Earnings Per Job Are \$12,900 Below the National Average Earnings of \$80,800 Per Job

	Population (2023)	Labor Force (May 2023)	Jobs (2022)	Cost of Living	GRP	Imports	Exports
Region	693,915	344,519	333,317	122.7	\$40.0B	\$45.2B	\$42.1B
State	7,058,108	3,682,043	4,005,282	133.0	\$689.6B	\$455.3B	\$570.8B

Figure 2

- Region 2 will see an estimated population decline from 2023-2030. The 2023 population of 693,915 will decrease by 7,975 individuals (-1%) to a 2030 estimated population level of 685,940.
- The largest declines in the working age population will be in the 50-54 age group (-6%), 55-59 age group (-14%), and 60-64 age group (-13%). This represents a total decrease of 14,886 potential workers.

- ✚ The 30-34 age group will decline by -3,418 individuals (-8%).
- ✚ The 35-49 age group will have a positive increase from 1% to 16% for a net increase of 11,219 individuals.
- ✚ With the 35-49 age group showing a positive increase, the 50-64 age group showing moderate attrition, and the 30-34 age group showing a decline, there are moderate concerns for Region 2 on population changes over the next decade as attrition takes place due to retirements or older individuals leaving the workforce¹.

Describe critical trends in regional demographics that impact the workforce. Age, education, etc.

The following trends in Region 2 demographics are impacting the region’s workforce:

1. Employment Decline

From 2017 to 2022, jobs declined by 2.2% in Region 2 from 340,718 to 333,317. This change fell short of the national growth rate of 3.8% by 6.0%. As the number of jobs declined, the Labor Force Participation Rate decreased from 61.9% to 61.2%.

2. Educational Attainment

Educational attainment for the Hispanic ethnicity, across all races (White-Hispanic, Black-Hispanic, etc.), is a concern due to the high number of individuals with less than a high school diploma compared to the other race categories. In addition, individuals for the same demographic have attained fewer college degrees than non-Hispanic individuals².

Figure 3- Educational Attainment Chart

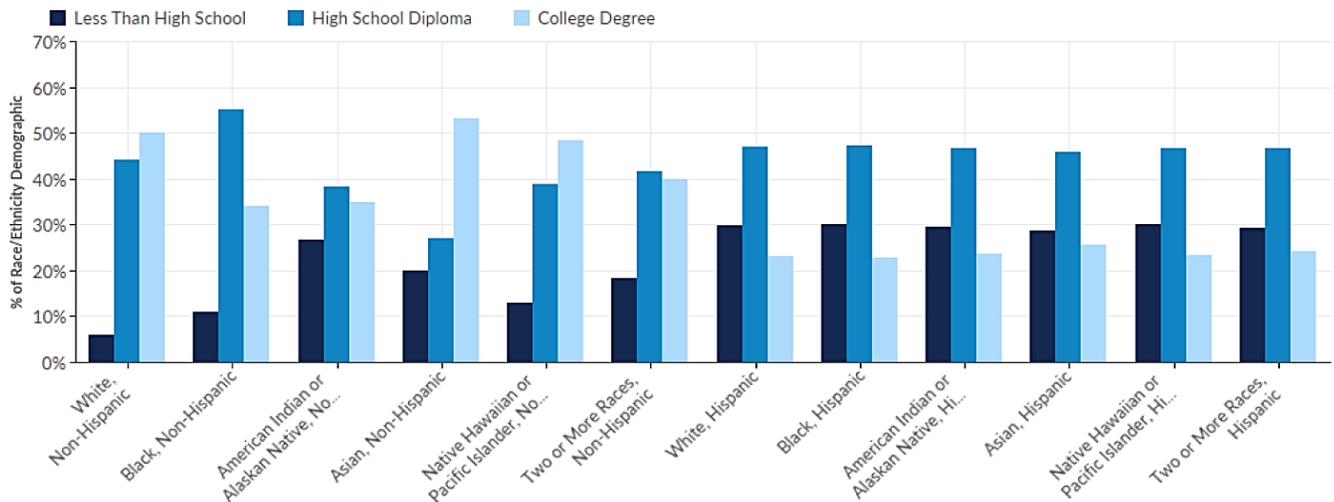


Figure 3

Figure 4- Educational Attainment Table

Race/Ethnicity	2023 Population	2030 Population	2023 Less Than High School	2023 High School Diploma	2023 College Degree
White, Non-Hispanic	348,649	337,700	20,690	153,489	174,469
Black, Non-Hispanic	26,866	28,144	2,930	14,779	9,156
American Indian or Alaskan Native, Non-Hispanic	954	1,146	256	365	333
Asian, Non-Hispanic	13,330	15,995	2,665	3,586	7,080
Native Hawaiian or Pacific Islander, Non-Hispanic	260	406	32	99	128
Two or More Races, Non-Hispanic	5,970	7,583	1,099	2,489	2,382
White, Hispanic	65,423	73,843	19,570	30,736	15,116
Black, Hispanic	8,849	10,436	2,665	4,183	2,001
American Indian or Alaskan Native, Hispanic	2,081	2,335	617	975	489
Asian, Hispanic	492	647	140	227	125
Native Hawaiian or Pacific Islander, Hispanic	465	580	140	217	108
Two or More Races, Hispanic	3,217	4,610	947	1,500	770
	476,557	483,426	51,752	212,645	212,159

Figure 4

3. Immigration

Over the next two years, immigrants and refugees seeking to live in the Region will have a significant impact on the workforce, educational, and economic systems in Region 2. A coordinated delivery system to provide access to affordable and adequate housing, access to public transportation, ESOL training, and digital literacy training, and child care, will need to be developed, funded, and implemented. This segment of the region’s population could have a positive impact on mitigating current Supply Gaps in selected entry level and mid-level priority occupations.

4. Labor Force Participation Rate 2021-2023

The Labor Force Participation Rate (LFPR) is an estimate of an economy’s active workforce. The formula is the number of people ages 16 and older who are employed or actively seeking employment, divided by the total non-institutionalized, civilian working-age population.

- ✚ The Massachusetts Labor Force Participation Rate (Figure 5) has declined from a pandemic recovery high of 66.5% in January 2021 to a September 2023 level of 64.4%.
- ✚ The Pioneer Valley LFPR improved from 58.9 % in January 2021 to a September 2023 level of 59.5%.
- ✚ The Pioneer Valley continued to have a cyclical transition up and down from September 2021 to May 2023 with a high of 62.4 in April 2022. However, from May 2023 to September 2023, the LFPR has remained flat at 59.5%
- ✚ Hampden County continues the monthly trend of trailing the MA LFPR by 5%-6% points³.

Region 2 historically is 5-7 percentage points lower than the MA participation rate compared to similar regions of same demographic and economic characteristics.

Figure 5. Labor Force Participation Rate

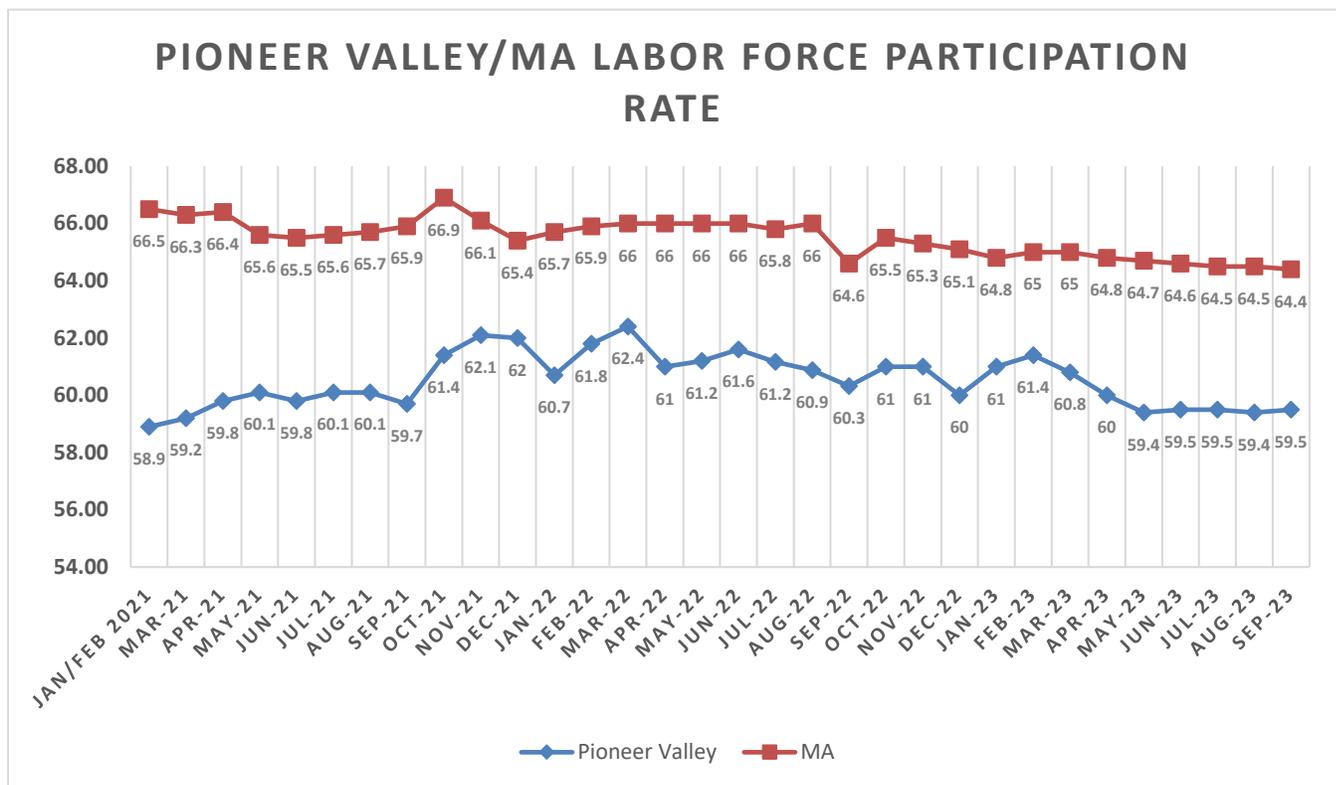


Figure 5

2) Industry Demand Analysis (NAICS)

Utilize the information provided through state data sets and additional local analysis region’s criteria and labor market data (i.e. your region’s account for [Lightcast](#), [DER data](#), [Quarterly Workforce Indicators](#)) to explore the following questions in discussion and develop consensus for each section.

Describe past and current high-level industry trends impacting workforce needs (i.e. growing, declining, emerging industries).

The economic downturn caused during the COVID-19 pandemic time period of 2019-2022 impacted the Region’s priority industries. The three priority industries of Healthcare and Social Assistance (6%), Educational Services (-10%) and Manufacturing (Advanced)-Fabricated Metal Product Manufacturing (5%) varied from negative to positive job growth. All three priority industries, based on the 2020-2030 projections, are expected to maintain a positive trajectory. The 2020-2030 occupational projections for all three of the priority industries showed positive job growth with Healthcare and Social Assistance leading the way with at 18.25% job growth, creating 12,487 jobs.

In 2024-2028, Region 2 believes the following **high level issues** will influence industry’s approach to mitigating the Supply Gaps in the regions priority occupational groupings:

1. Domestic economic uncertainties and unpredictable global geo-political factors may impact employers strategic planning and decision making relative to hiring patterns and cadence of hiring.

2. The continued challenges to employers to effectively mitigate historic Supply Gaps in selected occupations are accelerating the adoption of new technologies and work processes that may consolidate repetitive work tasks and limit entry level career pathway hiring in selected occupational groupings.
3. The emergence of new post- pandemic occupational positions and groupings, particularly in the Healthcare industry will require the regional educational/training eco-system to work more closely with healthcare providers to codify required skills and competencies, and develop appropriate curriculum and training programs/courses that can be delivered in shorter periods of time, in different venues, and using more flexible delivery models.
4. Remote/hybrid work and hiring patterns may result in employee downsizing that may reduce hiring demand and limit overall job growth over time.

Region 2 Priority Industries

NAICS	Industry	Industry Trend	2030 Projection
(62)	Health Care & Social Assistance	Growing	↑ 18.2%
(31-33)	Manufacturing- Fabricated Metal Products (Sub-Sector-3327)	Growing	↑ 27.9%
(61)	Educational Services	Growing	↑ 12.0%

Figure 6-A

Region 2 Other Critical Industries

NAICS	Industry	Industry Trend	2030 Projection
(11)	Agriculture, Sustainable Food Systems, Forestry, Fishing and Hunting	Growing	↑ 32.0%
(48)	Transportation and Warehousing	Growing	↑ 35.0%
(54)	Professional, Technical, and Scientific	Growing	↑ 3.8%
(56)	Administrative Support and Waste Management and Remediation	Growing	↑ 26.0%
(71)	Arts, Entertainment and Recreation- Amusement, Gambling, Performing Arts	Growing	↑ 107.0%
(72)	Accommodation and Food Services	Growing	↑ 41.0%

Figure 6-B

Region 2 Emergent Industries

The Pioneer Valley has identified the following Emergent regional industries that may present job creation and career pathway opportunities moving forward. The workforce boards and CORE Planning Team will be identifying employer partners and training providers as a part of its on-going regional capacity building work:

-  Clean Energy
-  Water Systems
-  Quantum Computing

Region 2 has a history of workforce development initiatives in Clean Energy with Springfield Technical Community College and UMass-Amherst having made significant investments in research and workforce development in partnership with regional municipalities. Quantum Computing is the cutting edge of information technology and both the region and the state are looking at opportunities in this innovative sub-sector.

What top three industries are most important to the region's economic success and why? (Volume of employment, projected growth, wage levels, etc.) CRITERIA

Region 2 Priority Industries

1. Healthcare and Social Assistance (62)

- A. Region 2's largest source of career employment due to the presence of major acute care hospitals, medical practices affiliated with the acute care providers, community-based health care and social assistance providers, and a significant number of long-term care and assisted living facilities.
- B. 72,859 jobs in 2023 with average annual wage of \$62,943, and projected 2020-2030 employment growth of 18.2%

2. Manufacturing (31-33)

- A. The presence of publically traded Original Equipment Manufacturers (OEM's) and a significant number of Small and Medium Size Enterprises (SMSs) that conduct business in an integrated manufacturing ecosystem and supply chain.
- B. In the Fabricated Metal Product Manufacturing (3327) sub-sector, 25,157 jobs in 2023 and an average annual wage of \$69,550, and projected 2020-2030 employment growth of 27.9%

3. Educational Services (61)

- A. The presence of a significant number of secondary and post-secondary institutions including the UMass-Amherst flagship campus. State data indicated that Educational Services is the second most in-demand priority regional industry. Regional data at Pre K-12 was especially supportive in critical needs fields at all levels.
- B. 18,750 jobs in 2023 and an average annual salary of \$52,108, and projected 2020-2030 employment growth of 12.9%

Region 2 Other Critical Industries

1. Agriculture, Forestry, Fishing and Hunting (11)

- (111) Crop Production- projected employment growth at 39.13%
- (112) Animal Production- projected employment growth at 24.22%

2. Arts, Entertainment and Recreation (71)

- Projected employment growth of 100.7% is based on the growth of the following sub-sectors:
- (713) Amusement, Gambling and Recreation Industries. (148%)

3. Accommodation and Food Services (72)

- Projected employment growth of 41% is based in the growth of the following sub-sectors:
- (721) Accommodation, including Hotels and Motels (22%)
 - (722) Food Service and Drinking Places (44%)⁴

4. Professional, Scientific, and Technical Services (54)

- Projected employment growth of 3.8%

5. Transportation and Warehousing (48)

Projected employment growth of 35% for this industry sector.

6. Administrative Support and Waste Management and Remediation (56)

Projected employment growth of 26% for this industry which includes Staffing Agencies.

For the top three industries, what are the most significant workforce development challenges identified by business and industry partners from those industries?

Healthcare and Social Assistance

- | |
|--|
| 1. Retaining bed-side Registered Nurses at staffing levels and on work schedules that ensure delivery of high quality, affordable healthcare services in a 24-7 environment. |
| 2. Hiring and retaining an appropriately sized workforce at all levels to deliver a broader array of population health services in long-term care facilities, community-based health centers, and prevention/homecare settings. |
| 3. Providing clinical training services to students at appropriate levels of scale due to shrinking and re-purposed capacity at healthcare facilities, shortage of clinical preceptors, and changes in staffing levels and rotations at participating clinical sites. |
| 4. Salary imbalances and selective regulatory credentialing and licensing requirements reducing the number of Registered Nurses choosing nursing faculty positions, particularly at the community college level, resulting in flat student enrollment and reduced number of program graduates and future RN employees. |

Figure 7-A

Educational Services

- | |
|---|
| 1. Shrinking labor pool and non-competitive wage scales impacting ability of Gateway City school districts to properly staff mandated and critical need paraprofessional and instructional support staff positions. |
|---|

Figure 7-B

Manufacturing (Advanced)

- | |
|--|
| 1. Graying workforce in high value production occupations and difficulty in implementing internal “transfer of knowledge” practices creating technical knowledge deserts that are impacting competitiveness within current supply chains. |
| 2. Attracting, developing, and retaining younger employees who demand professional development, more balanced work-life schedules, and clear understanding of company culture and career pathways. |
| 3. Expanding the capacity to offer incumbent worker training in higher levels of advanced manufacturing skills and competencies in process improvement and software applications. |
| 4. Controlling the accelerating administrative and operational costs of doing business while still providing wages and benefits that attract and retain talent, and allowing for increased capital expenditures that will accelerate technology innovation and improve global competitiveness. |

Figure 7-C

3) Occupational Demand Analysis (SOC)

Utilize the information provided through state data sets and additional local analysis using the region’s criteria and labor market data to explore the following questions in discussion and develop consensus for each section.

Describe critical trends in occupational employment history in the region (i.e. growing, declining, emerging occupations).

Between 2017 and 2022, significant job growth occurred in occupations that require a Bachelor’s degree (+). Leading this growth are occupations in Healthcare and Social Assistance, such as Mental Health and Substance Social Workers (43%), and Registered Nurses (30%). The demand for Educators showed steady job growth averaging 58% and 98% respectively for elementary, secondary and special education teachers-secondary school (31%), and paraprofessionals/ teacher’s assistants (11%).⁵

High growth occupational trends at the sub-Bachelor’s degree level continue to be led by Healthcare and Social Assistance with Nursing, Psychiatric, and Home Health Aides (55%) and Healthcare Support jobs. Occupations such as Bookkeeping, Accounting and Auditing Clerks (57%), Stockers and Order Fillers (39%) demonstrated steady growth and created a significant number of entry-level job opportunities⁶.

What are the top occupations or occupational groups in which the region is facing the most significant employee shortages? Utilize the regional occupational list that ranks of 3, 4 and 5 star occupations for the region and determine those with significant shortages based upon the “supply” data for the region, input from business, organizations and other input. The top occupational groups with the largest supply gaps are (See Attachment B for specific titles/data):

The following is a list of the Occupational Groupings with the most significant Projected Supply Gaps. However, not all of these occupations are a focus of our Regional Planning Blueprint implementation work.

Occupational Groupings	Projected Supply Gaps
Stocker and Order Fillers	-631
Heavy and Tractor Trailer Truck Drivers	-408
Bookkeeping, Accounting and Auditing Clerks	-389
First-Line Supervisors of Retail Sales Workers	-357
First-Line Supervisors of office and Administrative Support Workers	-320
Substance Abuse, Behavioral Disorder, and Mental health Counselors	-314
Construction Laborers	-288
Shuttle Drivers and Chauffeurs	-279
Bus Drivers, School	-260
Sales representatives, Wholesale and Manufacturing	-223

Figure 8

Which occupations offer a “career pathway” for workers to move to higher skills and wages, especially workers starting at entry-level? (You can include occupations without a star ranking that is entry-level yet important because of a career pathway or cluster.)

The Region 2 workforce boards believe that **all** the priority occupational groupings in the Blueprint offer career pathway opportunities for workers to move to higher skills and wages, especially workers starting at entry-level positions. We have work to do before we can indicate clear and specific pathways in all of the occupational groupings. This will be a part of our work during the 2024-2028 timeframe. To that end, two of the key Goals and Strategies in the 2024-2028 Blueprint are as follows:

- Continue to work with our employers and educational institutions/training providers to *further develop and refine* educational/career pathway programs at all levels within the priority industries and occupations.
- By the end of 2028, Region 2 plans to *IMPLEMENT* educational/career programs that increase the supply of trained workers and present clear pathways for credential attainment, quality career mobility, and wage and professional advancement in specific occupational groupings in priority industries.

The following **Priority Occupational Groupings** offer significant career pathway opportunities for the workforce over time. Career development work in each of these career pathways is at varying stages of development and implementation:

- ✚ Registered Nurse
- ✚ Teachers Assistant/Paraprofessional
- ✚ Machinist (Including Computer Numerical Control Machinist)
- ✚ Licensed Practical Nurse
- ✚ Behavioral Health Technician
- ✚ Inspector, Tester, Sorter
- ✚ Computer Numerical Control(CNC) Operator
- ✚ Computer User Support Specialist
- ✚ Surgical Technologist
- ✚ Occupational Therapy Assistant
- ✚ Healthcare Technologists and Technicians
- ✚ Medial Assistant
- ✚ Nursing Assistant
- ✚ Industrial Machinery Mechanic
- ✚ Social and Human Services Assistant

Utilize answers above to create a “high demand” occupational list for the region that is a focus for future pipeline programming, investments and talent expansion strategies across systems. (NOTE: Workforce and education partners at the state and regional levels will rely on this list to target investments. This includes programming issued by EOLWD, DCS and Commonwealth Corporation; Office of Education including higher education capital planning, Chapter 74 programming, Skills Capital Grants:

- ✚ Registered Nurse
- ✚ Teachers Assistant/Paraprofessional
- ✚ Machinist (Including Computer Numerical Control Machinist)
- ✚ Computer Numerical Control(CNC) Operator
- ✚ installation Machinery Mechanic
- ✚ Computer User Support Specialist
- ✚ Surgical Technologist
- ✚ Behavioral Health Technician
- ✚ Patient Care Technician
- ✚ Occupational Therapy Assistant
- ✚ Health Technologists and Technicians
- ✚ Nursing Assistant
- ✚ Home Health and Personal Care Aide
- ✚ Medical Assistant
- ✚ Social and Human Services Assistant

4) Workforce Supply

Review information on existing unemployed workers, graduates coming from educational pipelines and other data on workforce supply.

Describe the universe of the region's existing pipelines of new workers (credentials) across public and private secondary and post-secondary institutions.

- *Highest and lowest number of new graduates by credential/CIP?*
- *How does retention of graduates in your region influence supply?*

Research and Analysis-Educational Labor Supply (2019-2020)

In April 2021, the Educator Work Group of the Regional Planning CORE Team, in partnership with the three regional community colleges and Westfield State University, produced the ***ADDENDUM Report on Graduation Data and Employment Status-2019-2020 (Attachment C)***. The report focused on the following data on the three Region 2 priority industries of Healthcare and Social Assistance, Advanced Manufacturing and Educational Services.

1. **Graduation Data- 2019-2020 Academic Year**
2. **Employment Status of Graduates-2019-2020 Academic Year**

This information was a continuation of the work begun by the Educator work Group in January 2020, and codified in the July 1, 2020 Report- ***ADDENDUM to Summary of Technical Programs at The Regional Community Colleges and Westfield State University: Program Enrollment and Enrollment vs. Program Capacity.***

In preparing this ADDENDUM Report on ***Graduation Data and Employment Status-2019-2020***, the workforce boards, in consultation and agreement with the three community colleges and Westfield State University, included and occupations **Graduation Data** that comprised all graduates earning a Degree/Certificate at various times during the 2019-2020 academic year, in particular as the final graduation data for some programs was not known until the fall 2020 due to the impact of the pandemic.

Data on the Employment Status of Graduates-2019-2020, as reported by the three regional community colleges and Westfield State University, was limited and in some cases not available. Collecting employment data within six (6) months post-graduation has historically been difficult to accomplish, and was compounded in 2020 by many factors related to the conditions created by the pandemic and its impact on both the economy and on the graduates.

MHHCWB has been working with the three community colleges to develop a process to obtain employment information on their program graduates. This task is very complex, and it is not possible at this point to document, with any degree of validity, the pertinent employment information and by association, the retention status of the graduates' → employees. MHHCWB believes this is a state-wide issue that presents a unique and positive opportunity to develop a systemic process to codify the employment and retentions status of program graduates.

In February 2023, the Educator Work Group of the Regional Planning CORE Team, in partnership with the three regional community colleges and Westfield State University, produced the ***Second Addendum to the Summary of September 2022 Program Enrollment and Enrollment vs. Program Capacity of the Technical Programs/Courses Conducted at the Regional Community Colleges and Westfield State University (Attachment D)***.

The **Second Addendum** contains Enrollment and Program Capacity information from the **September 2022** semester, and like previous Reports, connects Enrollment and Program Capacity to the Priority industries and occupations that are codified in the Regional Blueprint. This is **primetime** data and is the best snapshot of future Supply Capacity in

the three priority industries. We anticipate obtaining graduation and employment information on the program graduates from June 2023 and September 2023 in early 2024.

Information on the **number** of graduates from the Chapter 74 vocational programs tied to the three regional priority industries is available, however information on the **ACTUAL** status of those graduates immediately following graduation in June in any school year is sporadic, cannot be validated, and is not a good indicator of future labor force supply in those industries.

Based on the “high demand occupational list”, MHCWB has prepared the following Table⁷ (Figure 9) that depicts **2022 program completers** from the occupation- related college programs by Classification of Instructional Programs (CIP) Codes, MassHire Career Centers MOSES data, regional training provider data, and Chapter 74 Career Vocational & Technical program credentials. This data provides SOME data points that underscore the challenges of accurate supply side data metrics:

Occupation	CIP Graduates	MassHire Career Centers	Regional Training Vendors	CVTE Graduates	Supply Totals
Registered Nurse 29-1141	633	0	N/A	N/A	633
Teachers Assistant 25-9045	81	0	N/A	N/A	81
Childcare Workers, Pre-K to Grade School 30-9011	141	0	N/A	47	188
Machinist (Incl. Computer Numerical Control Machinist -51-4041	0	0	N/A	0	0
Industrial Machine Mechanic 49-9041	28	0	N/A	N/A	28
Computer Numerical Control Tool Operator 51-9161	8	17	N/A	61	86
Computer User Support Specialist 15-1232	75	6	N/A	31	112
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	N/A	0	N/A	N/A	0
Health Technologist and Technician, all others 29-2099	7	0	N/A	0	7
Nursing Assistant 31-1131	0	1	377	89	467
Home Health and Personal Care Aide 31-1120	0	1	358	89	448
Patient Care Technician 31-1132	0	0	0	0	0
Medical Assistant 31-9092	33	21	N/A	N/A	54
Emergency Medical Technician 29-2042	9	0	0	0	9
Social and Human Services Assistant 21-1093	213	0	N/A	N/A	213

Figure 9

With the exception of Registered Nurses, the “high demand occupational list” has an educational requirement of a high school/career vocational technical diploma, post-secondary certification or licensure, or an Associate’s degree. These labor supply pools are normally comprised of regional talent that is seeking local or regional employment opportunities.

In the case of occupations that require a Bachelor’s degree or higher, graduates from other regions, states or countries tend to return to their point of origin or consider nation-wide opportunities. There are many employment, economic and “quality of life” variables that impact retention. Developing strategies to retain the Bachelor’s degree and above talent pool is a critical part of our regional discussions in workforce and economic development and regional planning.

What are the top three broad labor supply challenges for the region's priority occupations and career pathways identified in prior section (e.g. retirement and aging of population, low high school graduation rate, education or workforce skills of existing labor pool, limited language proficiency)?

The following broad labor supply challenges continue to impact hiring across the Region 2 priority industries and occupations.

1. Aging labor force headed towards retirement, declining birth rates across the population spectrum, and robust post-pandemic hiring are shrinking the applicant pool resulting in stagnant growth in the regional Labor Force Participation Rate.
2. Life cycle issues, highlighted by the cost of high quality and affordable child care, housing issues, and the absence of flexible work schedules, are impacting the ability of some individuals, particularly low income job seekers, to commit to entering/returning to the labor force on a full time basis.
3. New technologies and work processes are consolidating a number of available entry level positions in selected industries and occupational groupings making it more difficult for new labor market entrants with limited education, technical competencies, and digital skills to find quality jobs with family sustaining wages.

III. Where do we want to go?

Describe the collectively developed criteria, industry and occupational priorities, vision, mission, and goals for your region.

5) Priority Industries and Occupations

Using your regional context and mutually agreed upon regional criteria, list your priority regional industries and occupations or occupational groups.

Region 2 has developed the following metrics (Figure 10) to guide and inform the **CRITERIA** used to codify our regional priority industries and occupational groupings. The Criteria will be assessed as part of our regional planning work moving forward:

STATE CRITERIA	REGIONAL CRITERIA
<ul style="list-style-type: none"> ✦ High Employer Demand ✦ High Demand and High Wage (4-5 Star Occupations) ✦ Talent Gaps (Supply to Demand Ratio) ✦ Career Pathways 	<ul style="list-style-type: none"> ✦ Aligned With State Criteria but More Specifically and Geographically Defined: ✦ Industry Criteria: 1. Total And Average Wages; 2. Employment Share; 3. Annual Openings; 4. Industry Ecosystem; 5. Career Pathways ✦ Occupation Grouping Criteria: 1. Employment Share; 2. Occupational Growth Overall; 3. Occupational Growth-AA Level; 4. Occupational Growth (Sub-Regional); 5. Career Pathways

Regional Priority Industry Selection Criteria Each Priority Industry Should Meet At Least Four (4) Of The Five (5) Criteria
<p>1. Total and Average Wages The industry is economically critical to multiple geographical areas within the Pioneer Valley Region and has quality occupations with high Total and Average Wages.</p>
<p>2. Employment Share The industry has significant employment share within the Region and projections indicate that the industry is expected to grow in line with or faster than the overall economy.</p>
<p>3. Annual Openings The industry's projected Annual Openings over the next 5 years is positive, including new openings and/or replacement demand for occupations.</p>

4. Strong Industry Eco-System

The industry has an existing or emerging critical mass of employers including anchor companies, headquartered companies, small and medium size enterprises (SMEs) and start-ups. Industry partnerships currently exist between and among employers.

5. Career Pathways

The industry has high demand, and contains high quality jobs, as described by 4 and 5 Star occupations, with median wages that meet or exceed regional averages, have competitive employee benefits, and provide career pathways for advancement.

**Regional Priority Occupational /Occupational Grouping Selection Criteria
Each Occupation/Occupational Grouping Should Meet At Least Three (3) Of The Five (5) Criteria**

- 1. Employment Share**
The occupation exists in a cross-section of various sized companies located in multiple geographical areas within the Pioneer Valley Region and has an Employment Share \geq statewide averages for that occupation.
- 2. Occupation Growth**
The occupation is in-demand and has a median annual wage that meets or exceeds the average median annual wage for all occupations in the region that require a similar level of education, and has long-term projected job growth rate of at least the 50th percentile within the region.
- 3. Occupation Growth: Associate Degree Certificate of Completion**
The occupation is in high demand and has a median annual wage that is equivalent to the average median annual wage for all occupations in the region, has competitive employee benefits, long-term projected job growth rate of at least the 75th percentile within the region, and career pathway programs either currently exist or are capable of being designed.
- 4. Occupation Growth: Sub-Regional Occupations**
There are occupations with emerging growth patterns within selective sub-regional industries characterized by small and medium size enterprises (SMEs) and start-ups, that have existing economic and employment partnerships and have long-term projected job growth rate of at least the 50th percentile within the region.
- 5. Career Pathways**
The priority occupations have regional educational programs that present clear pathways for career mobility and wage advancement within a 3-5 year time period.

Figure 10

List your 2-3 priority industries by 2-digit NAICS. Where you choose to prioritize an industry that does not fit neatly into a 2-digit NAICS code (i.e. creative economy), note where it would best fit (i.e. Arts and Recreation) and describe the portion of the 2-digit industry you are prioritizing. For each selection, write a brief justification of your choice

The Pioneer Valley Regional Team used the State and Regional Industry and Occupational Grouping **Criteria** in Figure 10 to select the Priority Industries and Priority Occupational Groupings. In addition, the Team identified and documented the occupations/occupational groupings that met the 3+ Demand Star rating or were aligned with the Mass Talent criteria defined by the state.

Region 2 Priority Industries

NAICS	Industry	Industry Trend	2030 Projection
(62)	Health Care & Social Assistance	Growing	↑ 18.2%
(31-33)	Manufacturing (Advanced)-Fabricated Metal Products	Growing	↑ 27.9%
(61)	Educational Services	Growing	↑ 12.0%

Figure 11-A



1. Healthcare and Social Assistance (62)

Region 2’s largest source of career employment, due to the presence of major acute care hospitals, medical practices affiliated with the acute care providers, community-based health care and social assistance providers, and a significant number of long-term care and assisted living facilities.

72,859 jobs in 2023 with average annual wage of \$62,943, and projected 2020-2030 employment growth of 18.2%.



2. Manufacturing (31-33)

The presence of publically traded Original Equipment Manufacturers (OEM’s) and a significant number of Small and Medium Size Enterprises (SMSs) that conduct business in an integrated manufacturing ecosystem and supply chain.

In the Fabricated Metal Product Manufacturing (332) sub-sector, 25,157 jobs in 2023 with an average annual wage of \$69,550, and projected 2020-2030 employment growth of 27.9%



3. Educational Services (61)

The presence of a significant number of secondary and post-secondary institutions including the UMass-Amherst flagship campus. State data indicated that Educational Services is the second most in-demand priority regional industry. Regional data at Pre K-12 was especially supportive in critical needs fields at all levels.

18,750 jobs in 2023 and an average annual salary of \$52,108, and projected 2020-2030 employment growth of 12%

If you would like to describe industries that are notable in your region but will not be prioritized during this regional prioritization process, please list them here.

Region 2 has identified the following **Other Critical industries** that reflect the regional economy and respect the differences in part between the Hampden and Franklin Hampshire economies:

Region 2 Other Critical Industries

NAICS	Industry	Industry Trend	2030 Projection
(11)	Agriculture, Forestry, Fishing and Hunting	Growing	N/A
(48)	Transportation and Warehousing	Growing	↑ 35.0%
(54)	Professional, Technical, and Scientific	Growing	↑ 3.8%
(56)	Administrative Support & Waste Management/Remediation	Growing	↑ 26.0%
(71)	Arts, Entertainment and Recreation- Amusement, Gambling, Performing Arts	Growing	↑ 100.7%
(72)	Accommodation and Food Services	Growing	↑41.0%

Figure 11-B

1. Agriculture, Forestry, Fishing and Hunting (11)

With 1873 employees across 142 businesses, this industry sector is important, especially in the rural areas of Franklin and Hampshire Counties. Projected growth is based on the following two sub-sectors in Franklin and Hampshire counties. (Hampden County data N/A):

- (111) Crop Production at 39.13%
 - (112) Animal Production at 24.22%
2. **Transportation and Warehousing (48)**
Projected employment growth of 35% for this industry sector.
 3. **Professional and Technical Services (54)**
Projected employment growth of 3.8% for this industry sector.
 4. **Administrative Support and Waste Management and Remediation (56)**
Projected employment growth of 26% for this industry which includes Staffing Agencies.
 5. **Arts, Entertainment and Recreation (71)**
Projected employment growth of 100.7% is based on the growth of the following sub-sectors:
 - (713) Amusement, Gambling and Recreation (148%) Industries
 6. **Accommodation and Food Services(72)**
Projected employment growth of 41% is based in the growth of the following sub-sectors:
 - (721) Accommodation, including Hotels and Motels (22%)
 - (722) Food Service and Drinking Places (44%)⁸

List your 3-5 priority occupations or occupational groups by SOC code (4-8 digit, as necessary) from the “high demand” list developed in Section 3 above. The Team should prioritize based on the occupations experiencing a constricted “supply” of workers or new graduates with necessary skills (credentials, degrees, apprenticeships etc.) for those occupations. For each selection, write a brief justification of your choice.

See Credential Asset Mapping Tools for Specific Information on EACH Occupation Within The Groupings Listed Below.

1. **Healthcare and Social Assistance Occupational Grouping**
 - ✚ Medical Assistant- SOC: 31-9092
 - ✚ Emergency Medical Technician- SOC: 29-2042
 - ✚ Nursing Assistant- SOC: 31-1131
 - ✚ Social and Human Service Assistants (Behavioral Health):SOC: 21-1093
 - ✚ Clinical Laboratory Technicians (Varied) **Registered Apprenticeships** SOC: 29-2010
 - ✚ Patient Care Technician –SOC 31-1132
 - ✚ Home Health and Personal Care Aide-SOC 31-1120
2. **Manufacturing (Advanced) Occupational Grouping**
 - ✚ Production Worker-CNC Operator SOC: 51-4041
 - ✚ Production Worker- Machinist (Incl. CNC Machinist) SOC: 51-4041
 - ✚ Inspectors, Testers, Quality Control SOC: 51-9061
 - ✚ Front Line Manufacturing Production Supervisors SOC: 51-1011
3. **Educational Services Occupational Grouping**
 - ✚ Teacher Assistants/Paraprofessionals SOC: 25-9041
 - ✚ Childcare Workers < Pre-K-K SOC 39-9011

If you would like to describe occupations that are notable in your region but will not be prioritized during this regional prioritization process, please list them here

MHHCWB is a MA Division of Apprentice Standards (DAS) **Sponsor of Record** and **Employer Intermediary** for selected employers in the Healthcare and Social Assistance and Manufacturing (Advanced) industries and is developing Registered Apprenticeships in the following occupations:

- ✚ Operations Associate/Cardiac Monitor Technician
- ✚ Magnetic Resonance Imaging (MRI) Technician
- ✚ Polysomnographic Technician
- ✚ Behavioral Resource Technician
- ✚ Computer Numerical Control Machine Operator

In addition to the above, Region 2 will continue to focus on the following SOC occupational groupings for growth opportunities and the potential for funding investment:

✚ 35-0000 Food Preparation and Serving Related -High Demand Occupations with Projected Growth But Lower Entry-Level Wages and Limited Career Pathways
✚ 43-0000 Office And Administrative Support -Bank Tellers, Bookkeepers, Customer Service Representatives and Business Managers are In Demand In the Region but at a Lower Scale Than Priority Occupations
✚ 15-0000 Computer and Mathematical Operations -Computer Support, software development and the growth of cybersecurity are in demand in the region but at a lower total employment scale than priority occupations. Higher educational attainment requirements are typical for this occupational group, however, Computer User Support Services only require vocational training or a post-secondary certificate.
✚ 27-0000 Arts, Design, Entertainment, Sports, and Media - Projected Growth in Support of Regional Gaming, Amusement Park, Concerts and Spectator Sports. Increase in Regional Tourism Activities Have Increased Job Opportunities, however, Lower Wages, High Turnover and Seasonal Employment Impacts this Occupational Grouping.

6) Assets

For each of the selected **priority industries and occupations (purple section)**, articulate existing assets and gaps in capacity.

Credential Asset Mapping Tool. For priority occupations that require credentials, use the Credential Asset Mapping Tool in Attachment 1 to demonstrate assets and gaps for each priority industry and occupation.

Please see **Attachment A** for the **Credential Asset Maps** for priority occupations that require a credential/license.

Non-Credential Asset and Gap Analysis. For priority industries and occupations that do not require a credential, describe what existing assets in the region can meet the employer demand, and where systemic gaps prevent meeting employer demand.

Currently, the companies' in the Manufacturing (Advanced) industry, particularly the SME's, do not require "credentials" that have been verified and awarded by an approved accrediting agency, however, Region 2 has prepared a Credential Asset Map for **each** of the priority occupations to reflect the awarding of a **Locally Recognized Certificate** that many employers consider as part of their new entry-level employee hiring process.

7) Vision, Mission, Goals, Strategies and Outcomes

Using your articulated priority industries, occupations, and existing assets, articulate your broader vision, mission, and goals.

Regional Vision. Create a shared vision statement for the Team to describe the ideal vision for the priority occupational pathways within and across regional industries to achieve workforce scale and quality. Craft the shared vision through the lens of education, workforce development, and economic development.

SHARED VISION STATEMENT

The Region 2 CORE Planning Team, using statewide and regional **CRITERIA**, will provide strategic direction and guidance to a coordinated and integrated regional eco-system that will design and implement an array of programming and services to businesses and job seekers that will accelerate job creation, improve job retention, mitigate documented Supply Gaps in regional priority occupations, create regional economic expansion, and build strong communities.

Regional Mission. State what each set of core partners has agreed to do in order to achieve your vision. What will educational partners do? What will economic development partners do? What will workforce development partners do? (For example: Our education partners will focus resources on expanding career awareness and exposure, as well as the quantity and variety of education programming in priority industries X, Y, and Z. Please note these are broad mission statements rather than specific strategies, below).

Education:

The regional planning **Education** partners have agreed to the following initiatives in order to achieve our collective Vision:

- Assess regional education/training infrastructure and capacity to deliver innovative instruction in priority occupation utilizing various delivery modes, and focused on the following:
 - ✚ Align coursework and Certificates from one level to the next so that prior coursework, certificates, and/or work experience count toward a higher degree/certificate /industry-recognized credential.
 - ✚ Increase internship and clinical sites to allow students/program participants opportunities to experience career pathway positions.
 - ✚ Build-in stepping-out points within a program where students can obtain a certification/credential leading to employment and obtain employment while continuing their education.
 - ✚ Provide participants, especially disconnected youth, with comprehensive information on high-demand careers and connectivity to educational pathways.
- Engage employers in developing a formal process to provide guidance on needed technical competencies that will inform curriculum development, accelerate work-based learning opportunities for students/program participants, and better position program completers for post-training employment and retention.

Workforce Development:

The regional planning **Workforce** partners have agreed to the following initiatives in order to achieve our collective Vision:

- Involve employers in all pertinent aspects of regional planning initiatives and facilitate relationship

building between the employers and training institutions to foster long-term relationships and opportunities for leveraging potential financial investment moving forward.

- Engage employers in developing a formal process to evaluate the **Business Impacts** of training programs on accelerating regional industry-specific job creation and enhancing business competitiveness.
- Create an effective, evidence-based regional workforce system that partners with businesses, educational institutions, community based organizations, and governmental agencies to meet current and future needs of employers and workers by training and matching skills to quality, in-demand employment positions.

Economic Development:

The regional planning **Economic Development** partners have agreed to the following initiatives in order to achieve our collective Vision:

- Inform the CORE Planning Team of new technology innovations and planned company expansions that will spawn job creation and drive regional economic development.
- Ensure that workforce and educational partners are part of regional economic development **planning and policy development.**
- Identify additional regional companies and industry associations that can provide strategic guidance to the CORE Planning Team and its standing committees on Blueprint design and implementation going forward.
- Promote Region 2 as a bellweather location for **siting** new companies and growing existing business operations that will accelerate job creation and contribute to economic expansion.

Combined Mission: Workforce development, economic development, and education in the Pioneer Valley Region function as a strategic, integrated and evidenced-based system that effectively responds to current and future employer demand, and creates high quality and sustainable employment opportunities and career pathways for job seekers and workers that result in a skilled workforce and regional economic expansion.

Workforce Strategy for Priority Occupations. Describe your shared goals, strategies and metrics for 2024-2028 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 2028 targets.

Priority Occupation	Regional Pipeline Strategy	Partners/Educational Institutions/Training Providers	2023 Annual Baseline Estimate # of New Entrants* to Occupation	TARGET: 2024 Goal For # of New Entrants to Occupation (Estimated) Resulting From Strategy	TARGET: 2028 Goal For # of New Entrants to Occupation (Estimated) Resulting From Strategy
Medical Assistant SOC: 31-9092	Increase The Baseline Number Of New Certified Medical Assistants To Reach 73 a Year By 2028	<u>Certificate of Completion</u> Springfield Technical Community College Holyoke Community College Greenfield Community College Smith Vocational/Agricultural High School	54	9	9
		<u>Registered Apprenticeship</u> Baystate Health Holyoke Community College		10	10
Emergency Medical Technician- SOC: 29-2042	Increase The Baseline Number Of New Certified Emergency Medical Technicians To Reach 25 a Year By 2028	Springfield Technical Community College Greenfield Community College- American Medical Response National Ambulance	9	16	16
Nursing Assistant SOC: 31-1131	Increase The Baseline Number Of New Certified Nursing Assistants To Reach 477 a Year By 2028	First Choice Academy Springfield Technical Community College Holyoke Community College Excel Nursing Institute Regional CVTE Schools (89)	467	10	10

Social and Human Service Assistants (Behavioral Health) SOC: 21-1093	Increase The Baseline Number Of New Behavioral Health Associates (Direct Care Workers) To Reach 223 a Year By 2028	Holyoke Community College Greenfield Community College-	213	12	8
Clinical Laboratory Technologists and Technicians (Varied Related Occupations) Registered Apprenticeships SOC: 29-2010	Increase The Baseline Number of Clinical Laboratory Technicians (Varied Occupations To Reach 73 a Year By 2028	Registered Apprenticeship Baystate Health Holyoke Community College	62	14	8
Home Health and Personal Care Aide SOC 31-1120	Increase The Baseline Number of Personal Care Aides to Reach 448 a Year By 2028	Certificate of Completion Springfield Technical Community College Holyoke Community College Greenfield Community College Regional CVTE Schools (89)	448	0	0
Patient Care Technician SOC 31-1132	Increase The Baseline Number Of Patient Care Technicians To Reach 11 a Year By 2028	Certificate of Completion Springfield Technical Community College	0	0	10
		Registered Apprenticeship Baystate Health Holyoke Community College	0	8	5
Production Worker (Computer Numerical Control (CNC) Operator SOC: 51-4035	Increase The Baseline Number Of New Computer Numerical Control (CNC) Operator To Reach 121 A Year By 2028	Springfield Technical Community College Regional CVTE Schools (61)	86	35	35
Inspectors, Testers, Quality Control SOC: 51-9061	Upskill <u>Incumbent</u> Employees To Incrementally Mitigate Supply Gap Ratio from 0.29	Springfield Technical Community College	40	6	6
Production Worker Computer Numerical Control (CNC Machinist) SOC: 51-4041	Upskill <u>Incumbent</u> Employees To Incrementally Mitigate Supply Gap Ratio from 0.00 (No Annual Completions)	Springfield Technical Community College	0	4	4
Front Line Manufacturing Production Supervisors SOC: 51-1011	Upskill <u>Incumbent</u> Employees To Incrementally Mitigate Supply Gap Ratio from 0.39	Springfield Technical Community College	57	4	4

Teacher Assistants/Paraprofessionals SOC: 25-9041	Increase The Baseline Number Of Teacher Assistants/Paraprofessionals To Reach 98 a Year By 2028	Holyoke Community College Springfield Technical Community College MassHire Springfield Career Center (Job Fairs)	81	14	20
Childcare Workers < Pre-K → K SOC 39-9011	Increase The Baseline Number Of Childcare Workers To Reach 188 A Year By 2028	Holyoke Community College Springfield Technical Community College Regional CVTE Schools (47)	188	0	0

Shared Strategies

While each system may make changes in individual programming to align with the region’s priorities, all systems will need to commit to shared changes in the following areas, stated below. Describe how your region will work collaboratively in the following two areas.

Continuous Communication. How often and in what way will you meet to review progress towards shared goals and make course corrections?

Regional Planning is managed and directed by the two regional workforce boards, with MassHire Hampden County Workforce Board as the Lead and Fiscal entity. The Regional Planning CORE Team is appointed by the Workforce Skills Cabinet Secretary’s representing the Executive Offices of Labor and Workforce Development, Economic Development, and Education. The Regional Planning CORE Team will continue to meet formally three (3) times annually to review the alignment and implementation of shared Goals contained in the Pioneer Valley Labor Market Blueprint. The Region 2 Workforce Boards constituted the following three (3) Regional Planning and Blueprint Implementation Work Groups that meet regularly and provide updates on the progress of the implementation of the Blueprint’s Strategies to the Regional Planning CORE Team and the workforce boards:

- Employer Advisory Committee
- Educator Work Group
- Data Team

The Work Groups share with the CORE Planning Team planned Blueprint implementation activities with specific timetables and action steps. During 2023, the Employer Advisory Committee met jointly with the CORE Planning Team to provide overarching guidance and direction on demand-side issues and projections that will inform the attainment of shared goals. We expect to continue that process going forward.

Shared Measurement Systems. *What data and measurement systems will you rely on to support shared understanding of how well you are meeting your goals and making progress towards a shared vision?*

The Regional Planning Data Team referenced above will meet regularly to review regional demand v. supply data, assess hiring practices and trends within the priority industries, and validate data with state-wide partners, and share data sets and trend projections at each of the three annual CORE planning Team meetings. MHHWCW has a dedicated section on its web site <https://masshirecwb.com/hampden-county-labor-market-information/> that serves as the regional clearinghouses for Labor Market Information.

Other Shared Strategies. *What other shared strategies will the region adopt to ensure progress towards the common agenda?*

The Region 2 Regional Planning Team will adopt will adopt the following **Other Shared Strategies** to ensure progress towards the common agenda:

- Use the MH One Stop Career Centers as Regional Hubs to deliver a continuum and array of employment services to businesses looking to source talent at all levels, and to job seekers looking to enter the labor market and/or upskill needed technical competencies.
- Work with the regional educational institutions/training providers to support the development and implementation of industry-aligned career pathway training programs/courses using innovative, flexible training models that result in the attainment of an industry required license/credential.
- Expand the membership on the Regional Planning Team to include greater representation from Small and Medium Size Enterprises (SMES) and companies engaged in new/emerging markets/industries.
- Use state-wide and regional labor market data to identify new and emerging occupations that will require development of new career pathways and training delivery models.
- Assess ALL current funding sources, including WIOA Title 1, to ensure connectivity and alignment of resource deployment in regional priority and other critical industries.

8) Mutually Reinforcing Activities

To ensure that the work each partner is doing is supportive of the common agenda, describe the specific activities regional partners have committed to doing.

Education. Describe the changes in programming, recruitment, retention and placement strategies, assessment, tracking, or other strategies specific educational partners have committed to in order to meet shared regional goals.

Framing Statement - The **EDUCATIONAL** institutions in the Pioneer Valley Region have significant impact in promoting both economic growth and educating the future workforce. The educational institutions are the primary source of education for Pioneer Valley residents, are suppliers of trained employees to the priority and other industries in the Region, are buyers of goods and services, employ significant numbers of employees, and are a major wealth creator in the Region.

Mutually Reinforcing Activities	Committing Parties
Use the Blueprint to <u>inform</u> educational programming, refine or design curriculum, and identify student services and supports that ensure that a higher number of students persist along the Pre-K-16+ educational continuum, and graduate with either a degree, stackable credentials, or recognized certificates in high demand fields of study with labor market value.	Educational Institutions
Provide a broad array of educational programming, supports and services to immigrants and non-traditional student populations.	Educational Institutions
Build workforce readiness and employability skills development into educational/ training programming.	Educational Institutions, MHCWB, MHFWB
Collaborate with workforce development, economic development, and employers to further recommend and assist in the development of increased paid internship opportunities at the high school and college levels that support graduate retention in the Pioneer Valley.	Educational Institutions, MHCWB, MHFWB EDC
Connect college students to career opportunities in priority occupational groupings by increasing the number of regional employers that participate in on-campus recruitment programs and events.	Educational Institutions, MHCWB, MHFWB, EDC
Implement flexible educational/training delivery models that incorporate in-person and hybrid programming that can be delivered on flexible schedules that accommodate individuals work and life cycles	Educational Institutions,

Figure 12-A

Workforce Development. Describe the changes in programming, employer relations, recruitment, retention and placement strategies tracking, or other strategies specific workforce development partners have committed to in order to meet shared regional goals.

Framing Statement - The two MassHire **WORKFORCE** Boards in the Pioneer Valley Region create strategic alliances with the economic development and educational institutions in the region to plan, coordinate and oversee the use of public and private investment in workforce development initiatives that respond to gaps between employer needs and the data-informed priority occupations/occupational groupings articulated and codified in the Pioneer Valley Labor Market Blueprint.

Mutually Reinforcing Activities	Committing Parties
Develop and implement coordinated regional programs and services that respond to the demands of employers, job seekers, and incumbent employees.	MHHCWB, MHFHWB, MHOSCCs
Collaborate on the use of federal and state funding to provide maximum <i>impact</i> for both employers and job seekers/incumbent employees, and seek additional alternative investment from varied funding sources.	MHHCWB, MHFHWB
Work more closely with the regional and municipal economic development entities to implement an integrated system for gathering and reporting workforce demand needs and skills requirements to better match jobseekers with employers resulting in a reduction in the Skills Gap (Ratio) in priority occupations/groupings in the region.	MHHCWB, MHFHWBPVPC, MOBD, FRCOG, MHOSCCs
Work with economic development, educational institutions, and employers to increase paid internship opportunities at the high school and college levels that support graduate retention in the Pioneer Valley.	MHFHWB, MHHCWB EDC, MHOSCCs, Educational Institutions, Employer Partners
Strengthen relationships between <i>MassHire Business Solutions</i> , regional employers, and regional and municipal economic development entities.	MHOSCCs, MHFHWB, MHHCWB
Work with employers and training providers to develop creative recruitment, training, and retention solutions to meet industry staffing needs and mitigate job seeker barriers to employment and retention.	MHOSCCs, MHFHWB, MHHCWB
Continue to embed in future Workforce Boards' Strategic Plans (Scoreboards) the Strategic Priorities and Objectives that are consistent with the Goals and Strategies of the Pioneer Valley Labor Market Blueprint.	MHFHWB, MHHCWB
Collaborate on collecting and using <i>real time</i> regional labor market data that identifies new and emerging industries and codify future employer demand and skills requirements.	MHOSCCs, MHFHWB, MHHCWB EDC, PVPC, MOBD, FRCOG
Identify high quality and sustainable employment opportunities and career pathway programs for job seekers and workers in the Pioneer Valley.	MHFHWB, MHHCW, MHOSCCs, Employer Partners

Figure 12-B

Economic Development. Describe the changes in economic development strategy that economic development partners have committed to in order to meet shared regional goals.

Framing Statement - The regional and municipal **ECONOMIC DEVELOPMENT** entities outreach to businesses and create a system of communication and coordination around business outreach and engagement. Economic development partners transition Blueprint data into actionable ideas and actions, and use broad networks of employers and local and regional stakeholders to support and transform the work of the workforce development organizations and educational institutions.

Mutually Reinforcing Activities	Committing Parties
Regional and municipal economic development partners will transition appropriate Blueprint data into actionable ideas within their purviews (business development, regional economic development, regional economic planning, and local economic development).	EDC, MOBD, PVPC, FRCOG
Actively engage with workforce development and education partners to address current and future workforce needs of business and industry sectors, participate in the design and development of education and training pathway programs that prepare jobseekers to obtain, and retain career employment within the region.	EDC, FRCOG, PVPC
Work with the workforce development boards to develop tools and processes to create a system of communication and coordination around business attraction, outreach, and engagement.	EDC, MOBD, FRCOG, PVPC, MHFHWB, MHHCWB, OSCCs
Work with educational institutions, workforce development entities and employers to further recommend and assist in the development of increased paid internship opportunities at the high school and college levels that increase graduate retention in the Pioneer Valley.	EDC, FRCOG, MHFHWB, MHHCW Educational Institutions
Include the workforce development and educational partners in <i>new business attraction</i> development and/or the expansion of existing businesses to ensure a coordinated response to talent attraction, development and retention.	EDC, FRCOG, MOBD
Collaborate on collecting real time regional labor market data to identify new and emerging industries, and codify future employer demand and skills requirements.	EDC, FRCOG, MOBD, PVPC
Identify and pursue public funding for local and regional capital and infrastructure needs necessary to support and expand priority sector companies, including traditional infrastructure such as road and bridge construction, broadband and wastewater expansion and less traditional infrastructure work like makers spaces, business development centers and business eco-systems.	EDC, FRCOG, MOBD, PVPC
Market the region's Value Proposition and its assets to attract employers, entrepreneurs and start-ups.	EDC, FRCOG, MOBD, PVPC
Continue to convene and expand discussions with stakeholders from economic development, workforce, education and private industry to better understand and address regional economic needs and expand economic opportunity.	EDC, FRCOG, MOBD, PVPC

Figure 12-C

IV. Conclusion

Conclusions. Describe any closing remarks, next steps, or considerations.

Conclusions

1. The Pioneer Valley Region partnership is committed to implementing coordinated, sustainable, and bold actions that will drive regional economic expansion, increase career opportunities for all workers, and strengthen businesses, communities, and families.
2. The Pioneer Valley Region has committed cross- border partners in each of the priority industries, and the partners have long standing relationships and a history of collaboration, achieving focused outcomes, and creating impact across the region.
3. The regional partners are committed to developing an integrated communication and information-sharing plan, and formalizing a process that will keep core partners, employers, one stop career centers, and stakeholders informed on Blueprint implementation progress/resets, goals, and outcomes.
4. The regional economic development partners are committed to transitioning Blueprint data into actionable ideas and actions, and using broad networks of employers and local and regional stakeholders to support and transform the work of the workforce development organizations and educational institutions.
5. The educational institutions in the Pioneer Valley Region are the primary source of education for Pioneer Valley residents, **AND** have significant impact in preparing the future workforce of trained employees for the priority and other critical industries in the Region. They are also in and of themselves important economic and employment engines across Region2.

Considerations Moving Forward

1. The regional partners recognize that measuring Blueprint outcomes will require developing strong evaluation metrics, accepting sub-regional differences that may impact region-wide solutions, and remaining sufficiently agile to shifting supply-demand strategies and priorities should (or WHEN) the economic landscape changes.
2. Leveraging existing regional assets and resources and identifying leveraged investment on the private side will be critical to sustaining any initiative that brings to scale an intervention that mitigates the Supply Gap Ratio in targeted occupational groupings within priority and other critical industries.
3. Implementing and sustaining educational/career programs that increase the supply of trained workers and present clear pathways for credential attainment, quality career mobility, and wage advancement in specific occupational groupings in both priority and other critical industries will require partner asset leveraging, infrastructure alignment, and identification of new and sustainable funding sources.

4. Increasing employee retention in occupational groupings that offer competitive wages and employee benefit packages will require coordinating established networks of social service agencies and community-based organizations that can provide support services in the areas of transportation, childcare, health and social services, and housing.
5. Expediting the Massachusetts Department of Higher Education academic program approval process for public 2 and 4-year institutions will allow the institutions to more effectively align educational programming to respond to evolving business workforce needs and demands across all industries.
6. The successful implementation of **MassReconnect** will make college and career pathway programs across all industries more accessible and affordable, will support Blueprint employee retention strategies, and should incrementally increase the regional labor force participation rate.

Attachments

A. Credential Asset Maps- Regional Priority Occupational Groupings

1. Healthcare and Social Assistance

- ✚ Medical Assistant- SOC: 31-9092
- ✚ Emergency Medical Technician- SOC: 29-2042
- ✚ Nursing Assistant- SOC: 31-1131
- ✚ Social and Human Service Assistants (Behavioral Health):SOC: 21-1093
- ✚ Clinical Laboratory Technicians (Varied, Including **Registered Apprenticeships**) SOC: 29-2010
- ✚ Patient Care Technician-SOC 31-1132
- ✚ Home Health and Personal Care Aide SOC-31-1120

2. Manufacturing

- ✚ Production Worker (CNC Operator) SOC: 51-4035
- ✚ Production Worker (CNC Machinist/CNC Machinist) SOC: 51-4041
- ✚ Inspectors, Testers, Quality Control SOC: 51-9061
- ✚ Front Line Manufacturing Production Supervisors SOC: 51-1011

3. Educational Services Occupational Grouping

- ✚ Teacher Assistants/Paraprofessionals SOC: 25-9041
- ✚ Childcare Workers < Pre-K-K SOC 39-9011

B. Supply Data for Priority, Critical, and Emerging Industries, Occupations, and Occupational Groupings

C. ADDENDUM Report on Graduation Data and Employment Status-2019-2020 (April 2021)

D. Second Addendum to the Summary of September 2022 Program Enrollment and Enrollment vs. Program Capacity of the Technical Programs/Courses Conducted at the Regional Community Colleges and Westfield State University (February 2023)

¹ Lightcast Q4 2022 Economy Overview-Pioneer Valley Data Set February 2023; US Census Bureau S1903 Median Income In The Past 12 Months

¹ Lightcast 2023 Three County Regional Overview

² Lightcast Educational Attainment for Three Counties Report

³ DER November 2023 LAUS Report and 2016-2022 LAUS data

⁴ Lightcast Industry Tables –Three Counties-2018-2023 and DER 2020-2030 Long Term Industry Projections for Hampden County and Franklin/Hampshire counties

⁵ DER Regional Occupation Explorer

⁶ DER Regional Occupation Explorer

⁷ Lightcast CIP tables and DER WSC Explorer Annual Completions

⁸ Lightcast Industry Tables –Three Counties-2018-2023 and DER 2020-2030 Long Term Industry Projections

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	<i>Medical Assistant</i> SOC: 31-9092
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	Certification as Medical Assistant from an accreditation entity
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College 20 Holyoke Community College-14 Greenfield Community College-16 Registered Apprenticeship -10
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical integrated into program Registered Apprenticeship has Integrated Related Technical Instruction (RTI) Training for Adult Learners Supported by Cohort Models
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) On-Line
Pell-eligible	Is the program Pell-eligible?	YES Certificate of Completion (28-32 College Credits)
Fee	What are the fees?	Fees Set by Board of Trustees <ul style="list-style-type: none"> Bachelor's Degree Associate Degree Certificate of Completion (One Year Program)
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align the <u>Curriculum</u> and Recognize the Certification
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable with progression to Associate or Bachelor's degree
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials Have Portability But <u>Acceptance</u> May Vary By Individual State Certification Regulations And/or Employer Policies
Credit/ Non-Credit	Are they credit or non-credit?	Credit
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Increased Seat Capacity Needed At Regional Community Colleges To Accommodate Employer Demand.

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	<i>Emergency Medical Technician</i> SOCs: 29-2042
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	EMT Certificate
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	<u>Non- Credit</u> Springfield Technical Community College {20} Holyoke Community College {12} Greenfield Community College {15} Workforce Development Boards {18} Regional Training Providers Credential By Certifying Authority And Accepted By Employers
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical and/or Practicum integrated into program
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) Hybrid
Pell-eligible	Is the program Pell-eligible?	<u>NO</u> College Non- Credit Workforce Development Boards
Fee	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> College -Non-credit <u>Fees Contingent Upon Length of Program</u> Workforce Development Boards
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align and Validate Curriculum and Recognize the Credential (e.g. License, certification)
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable- All May Not Transfer to College Credit
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials have Portability but <u>Acceptance</u> may vary by individual State licensure regulations and/or employer policies
Credit/ Non-Credit	Are they credit or non-credit?	Non-Credit
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	N/A

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Nursing Assistant SOCs: 31-1131
Type of Credential & Title of Credential	<i>List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)</i>	Certificate as Certified Nursing Assistant
Credential Provider	<i>List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.</i>	Credit and Non- Credit Springfield Technical Community College {20} Holyoke Community College {50} Greenfield Community College [25] Non- Credit Workforce Development Boards {18} Secondary Technical Schools (TBD) Regional Training Providers Credential, validated by Certifying Authority and accepted by employers
Integrated/ Accelerated	<i>Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?</i>	<ul style="list-style-type: none"> • Clinical and/or Practicum integrated into program • Apprenticeship has Integrated RTI • Training may be Contextualized for Adult Learners
Online/ Classroom/ Work-based	<i>Describe education environment and instructional methods.</i>	<ol style="list-style-type: none"> 1. Classroom 2. Hands-on Laboratory (On Site) 3. Clinical/Practicum (Off Site) 4. On-Line
Pell-eligible	<i>Is the program Pell-eligible?</i>	<u>NO</u> College Non- Credit Workforce Development Boards
Fee	<i>What are the fees?</i>	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> • College -Non-credit <u>Fees Contingent Upon Length of Program</u> Workforce Development Boards
Employer-validated	<i>Do local employers validate the credential? If so, describe.</i>	Employers Align Curriculum and Recognize the Certification)
Stackable	<i>Is the credential stackable with other certificates? If so, describe.</i>	Credentials are Stackable- All May Not Transfer to College Credit
Portable	<i>Are the credentials portable to other states/ industries? If so, describe.</i>	Credentials have Portability but <u>Acceptance</u> may vary by individual State licensure regulations and/or employer policies
Credit/ Non-Credit?	<i>Are they credit or non-credit?</i>	Credit and Non-Credit
Gaps?	<i>Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?</i>	Delay in certification process has been an issue.

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	<i>Social and Human Service Assistants (Behavioral Health)</i> SOC: 21-1093
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	Broad Occupational Grouping with Multiple Occupations. Focus on Behavioral Health Associate/Direct Care Workers. Most occupations at the Sub-Certificate of Completion level. Varying certifications and /or licenses required.
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College (20) Holyoke Community College (15) Greenfield Community College (18)
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical skills and competencies integrated into program Registered Apprenticeship has Integrated Related Technical Instruction (RTI) Training for Adult Learners Supported by Cohort Models
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) Hybrid
Pell-eligible	Is the program Pell-eligible?	<u>NO</u> Some programs may carry limited college credits.
Fee	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> Fees vary
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align and Validate Curriculum and Recognize the Credentials/Certifications)
Stackable	Is the credential stackable with other certificates? If so, describe.	Some Credentials are Stackable with progression to Certificate or Associate Degree for select occupations
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials Have Portability But <u>Acceptance</u> May Vary By Individual State Licensure Regulations And/Or Employer Policies
Credit/ Non-Credit?	Are they credit or non-credit?	Non-Credit. Some programs may award limited number of college credits.
Gaps?	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Occupational Grouping Necessitates On-Going Research And Analysis To Reflect Changing Industry Standards And Requirements

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Clinical Laboratory Technicians (Varied Related Clinical Occupations) SOC: 29-2010
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	<u>Certificate of Completion/Associate Degree</u> Broad Occupational Grouping with Multiple Occupations. Most occupations are Associate Degree or Certificate of Completion level, with selected occupations at the Sub-Associate degree level. Varying certifications and /or licenses required. <u>Registered Apprenticeship (New and Incumbent)</u>
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College Holyoke Community College Greenfield Community College Registered Apprenticeship
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical integrated into program 2,000-4,000 hour Apprenticeship has Integrated RTI between 150-300 Hours Registered Apprenticeship has Integrated Related Technical Instruction (RTI)
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) Hybrid
Pell-eligible	Is the program Pell-eligible?	Associate Degree Certificate of Completion (College Credit) Registered Apprentice Certificate
Fee	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> Associate Degree Certificate of Completion (One Year Program)
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align Curriculum and Recognize the Credential (e.g. License, Certification)
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable with progression to Associate or Bachelor's degree
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials Have Portability But <u>Acceptance</u> May Vary By Individual State Licensure Regulations And/or Employer Policies
Credit/ Non-Credit	Are they credit or non-credit?	Credit
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	<u>Occupational Grouping Necessitates Significant</u> On-Going Research And Analysis To Reflect Changing Industry Standards And Requirements And State Certification Standards

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Patient Care Technician SOC 31-1132
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	Certificate as a Personal Care Technician or Orderly
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Credit and Non- Credit Springfield Technical Community College {20} Holyoke Community College {50} Greenfield Community College [25] Non- Credit Workforce Development Boards {18} Credential, validated by Certifying Authority and accepted by employers
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical and/or Practicum integrated into program Registered Apprenticeship has Integrated Related Technical Instruction (RTI) Training may be Contextualized for Adult Learners
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) On-Line
Pell-eligible	Is the program Pell-eligible?	<u>NO</u> College Non- Credit Workforce Development Boards
Fees	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> College -Non-credit <u>Fees Contingent Upon Length of Program</u> Workforce Development Boards
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align Curriculum and Recognize the Certification)
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable- All May Not Transfer to College Credit
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials have Portability but <u>Acceptance</u> may vary by individual State licensure regulations and/or employer policies
Credit/ Non-Credit?	Are they credit or non-credit?	Credit and Non-Credit
Gaps?	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Need to establish Regional training vendors

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Home Health and Personal Care Aide SOC 31-1120
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	Credential as Personal Care Aide
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Credit and Non- Credit Springfield Technical Community College {20} Holyoke Community College {50} Greenfield Community College [25] Non- Credit Workforce Development Boards {18} Regional CVTE Schools (TBD) Regional Training Vendors Credential, validated by Certifying Authority and accepted by employers
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> Clinical and/or Practicum integrated into program Training may be Contextualized for Adult Learners
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> Classroom Hands-on Laboratory (On Site) Clinical/Practicum (Off Site) On-Line
Pell-eligible	Is the program Pell-eligible?	<u>NO</u> College Non- Credit Workforce Development Boards
Fee	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> College -Non-credit <u>Fees Contingent Upon Length of Program</u> Workforce Development Boards
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Align Curriculum and Recognize the Certification)
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable- All May Not Transfer to College Credit
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials have Portability but <u>Acceptance</u> may vary by individual State licensure regulations and/or employer policies
Credit/ Non-Credit?	Are they credit or non-credit?	Credit and Non-Credit
Gaps?	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Delay in certification process has been an issue.

Credential Asset Map

Complete one credential asset map for each priority occupation that requires a credential.

Occupation	List the Occupation the Credential Is For, Including the SOC Code	Production Worker (CNC Operator) SOC: 51-4035
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	<ol style="list-style-type: none"> 1. Associate Degree (College Credit) 2. Certificate of Completion (College Credit) 3. Locally Recognized Certificate 4. Registered Apprenticeship Certification
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College {28} Greenfield Community College {5} MHHCWB- {26} MHFHREB- {33}
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> • Apprenticeship Has Integrated Related Technical Instruction (RTI) • Associate and Certificate of Completion MAY have Internship Component • Training Modified and/or Contextualized for Adult Learners
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> 1. Classroom 2. Hands-on Laboratory 3. Hybrid/Remote
Pell-eligible	Is the program Pell-eligible?	<p style="text-align: center;"><u>YES</u></p> Associate Degree Certificate of Completion (College Credit) <p style="text-align: center;"><u>NO</u></p> Locally Recognized Certificate Registered Apprenticeship Certification
Fee	What are the fees?	<p style="text-align: center;"><u>Fees Set by Board of Trustees</u></p> <ul style="list-style-type: none"> • Associate Degree • Certificate of Completion (College Credit) <p style="text-align: center;"><u>Fees Contingent Upon Length of Program</u></p> <ul style="list-style-type: none"> • Locally Recognized Certificate • Apprenticeship Certification
Employer-Validated	Do local employers validate the credential? If so, describe.	Employers Align Curriculum and accept Locally Recognized Certificate of Completion
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable- May Not Transfer to College Credit
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials have Portability but <u>Acceptance</u> may vary by State/ employer
Credit/ Non-Credit?	Are they credit or non-credit?	Associate Degree (College Credit) Certificate of Completion (College Credit) Locally Recognized Certificate (Non-Credit) Apprenticeship Certification (Non-Credit/Credit)
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	N/A

Attachment A

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Production Worker (CNC Machinist) SOC: 51-4041
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	1. 8,000 Hour Registered Apprenticeship (RA) Certification
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Registered Apprenticeship. 8,000 Hour, 4 Year program. No Regional Data On Number Of RA In CNC Machinist, But Believe Very Limited.
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	Work Process (WP) -8,000 Hours- Employer Hands-On Based Related Technical Instruction (RTI)-600 hours- Classroom Based
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	1. RTI-Classroom 2. WP-Hands-on Laboratory 3. RTI-On-Line
Pell-eligible	Is the program Pell-eligible?	<u>NO</u>
Fee	What are the fees?	<u>Fees Contingent Upon Length of Program</u> • Apprenticeship Certification
Employer-validated	Do local employers validate the credential? If so, describe.	MA Division of Apprentice Standards Validates WP and RTI and Issues an Apprentice Certificate upon completion
Stackable	Is the credential stackable with other certificates? If so, describe.	May Not Transfer to College Credit
Portable	Are the credentials portable to other states/ industries? If so, describe.	Apprentice Certificate Has Portability But <u>Acceptance</u> May Vary By State/ Employer
Credit/ Non-Credit	Are they credit or non-credit?	Apprenticeship Certification (Non-Credit/Credit)
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	No Formal Educational Program In Place. Registered Apprenticeship Is Preferred Option

Credential Asset Map

Occupation	List The Occupation the Credential is for, Including the SOC Code.	Inspectors, Testers, Quality Control SOC: 51-9061
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	<ol style="list-style-type: none"> 1. Associate Degree (College Credit) 2. Certificate of Completion (College Credit) 3. Registered Apprenticeship Certification
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College- {6} Workforce Boards- Embedded As Part Of Curriculum But Credential Not Provided
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> • Apprenticeship has Integrated RTI • Associate Degree and Certificate of Completion MAY have Internship Component • Training Modified and/or Contextualized for Adult Learners
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> 1. Classroom 2. Hands-on Laboratory 3. Hybrid
Pell-eligible	Is the program Pell-eligible?	<p style="text-align: center;"><u>YES</u></p> <p>Associate Degree Certificate of Completion (College Credit)</p> <p style="text-align: center;"><u>NO</u></p> <p>Apprenticeship Certification</p>
Fee	What are the fees?	<p style="text-align: center;"><u>Fees Set by Board of Trustees</u></p> <ul style="list-style-type: none"> • Associate Degree (College Credit) • Certificate of Completion (College Credit) <p style="text-align: center;"><u>Fees Contingent Upon Length of RTI Program</u></p> <ul style="list-style-type: none"> • Apprenticeship Certification
Employer-Validated	Do local employers validate the credential? If so, describe.	Employers Align and Validate Curriculum and Recognize the Credentials
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials Have Portability But <u>Acceptance</u> May Vary By State/Employer
Credit/ Non-Credit	Are they credit or non-credit?	Associate Degree (College Credit) Certificate of Completion (College Credit) Apprenticeship Certification (Non-Credit/Credit)
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Occupational Grouping Requires On-Going Alignment To Reflect Changing Industry Standards And Requirements

Credential Asset Map

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Front Line Manufacturing Production Supervisors SOC: 51-1011
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	<ol style="list-style-type: none"> 1. Bachelor's Degree 2. Associate Degree
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	UMass Amherst Western New England University Springfield Technical Community College 3-5 annually
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> • Bachelor's degree and Associate Degree MAY have Internship Component • Training Pathways for Adult Learners restricted and/or not available
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> 1. Classroom 2. Hands-on Laboratory 3. On-Line
Pell-eligible	Is the program Pell-eligible?	<u>YES</u> Bachelor's Degree Associate Degree
Fee	What are the fees?	<u>Fees Set by Board of Trustees</u> <ul style="list-style-type: none"> • Bachelor's and Associate Degree
Employer-validated	Do local employers validate the credential? If so, describe.	Employers Recognize the Credential
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials Have Portability And Have Acceptance By States/Employers
Credit/ Non-Credit	Are they credit or non-credit?	Bachelor's and Associate Degree (College Credit)
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Occupational Grouping Necessitates On-Going Research To Reflect Changing Industry Standards And Requirements

Credential Asset Mapping Tool

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Teacher Assistants/Paraprofessionals SOC: 25-9041
Type of Credential & Title of Credential	<i>List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)</i>	Associate Degree HS Diploma + # of College Credits HS Diploma Certification MAY be required for selected positions in certain school districts
Credential Provider	<i>List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.</i>	Springfield Technical Community College Springfield College Holyoke Community College
Integrated/ Accelerated	<i>Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?</i>	<ul style="list-style-type: none"> • Training Modified and/or Contextualized for Adult Learners
Online/ Classroom/ Work-based	<i>Describe education environment and instructional methods.</i>	<ol style="list-style-type: none"> 1. Classroom 2. Hybrid
Pell-eligible	<i>Is the program Pell-eligible?</i>	Contingent upon required coursework
Fee	<i>What are the fees?</i>	TBD
Employer-validated	<i>Do local employers validate the credential? If so, describe.</i>	Credential Validated By Issuing Authority And Accepted By Employers
Stackable	<i>Is the credential stackable with other certificates? If so, describe.</i>	Credentials are Stackable in some situations
Portable	<i>Are the credentials portable to other states/ industries? If so, describe.</i>	Credentials have Portability but <u>Acceptance</u> May Vary By Individual State And/or School District Policies
Credit/ Non-Credit	<i>Are they credit or non-credit?</i>	Credit and Non-Credit
Gaps	<i>Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?</i>	Hiring Requirements vary by school district

Credential Asset Mapping Tool

Occupation	List The Occupation The Credential Is For, Including The SOC Code.	Childcare Workers < Pre-K→ K SOC 39-9011
Type of Credential & Title of Credential	List the type of credential (e.g. Certificate, Degree, Certification, License, or Apprenticeship Certification)	Associate Degree HS Diploma + # of College Credits HS Diploma + Experience Chapter74 Certification Completion of Human Growth/Development -3 Credit College Course Required For TEACHER Credential Certification MAY Be Required For Selected Positions In Certain Early Education And Care (EEC) Employers
Credential Provider	List all training/ education providers that provide this credential in your region. For each provider, list the average number of individuals receiving the credential per year.	Springfield Technical Community College Springfield College Holyoke Community College Regional CVTE Schools
Integrated/ Accelerated	Is the training integrated with work experience and/or accelerated for adult learners? If no, how to basic learners matriculate?	<ul style="list-style-type: none"> • Training Modified and/or Contextualized for Adult Learners
Online/ Classroom/ Work-based	Describe education environment and instructional methods.	<ol style="list-style-type: none"> 1. Classroom 2. Hybrid
Pell-eligible	Is the program Pell-eligible?	Contingent upon required coursework
Fee	What are the fees?	Tuition for college credit courses
Employer-validated	Do local employers validate the credential? If so, describe.	Credential Validated By Issuing Authority And Accepted By EEC providers CVTE Program Advisory Committees
Stackable	Is the credential stackable with other certificates? If so, describe.	Credentials are Stackable in some situations
Portable	Are the credentials portable to other states/ industries? If so, describe.	Credentials have Portability but <u>Acceptance</u> May Vary By Individual State And/or EEC entity
Credit/ Non-Credit	Are they credit or non-credit?	Credit and Non-Credit (# of hours practical or previous experience)
Gaps	Are there gaps in the pipeline for this occupation that require new strategies in the blueprint?	Hiring Requirements vary by EEC provider

Attachment B - Supply Data for Priority, Critical and Emerging Industries, Occupations and Occupational Groupings

Pioneer Valley Top 3 Priority Industries and Occupations

Industry (NAICS)	Occupational Classifications	Occupational Grouping/Clusters	Occupation Title	SOC	MassTalent Alignment	MA DER STARS	Annual Openings *	Annual Completions (Supply) **	Supply Gap	Supply Gap Ratio	Education Level	Wages Annual Median	Characterization of Occupational Needs
Healthcare & Social Assistance (62)													
<i>Industry Sector(62) 2020-2030 Growth 18.25% MA DER Projections 2020-2030</i>	Community & Social Services	Community and Social Service Occupation	Social and Human Service Assistants	21-1093	aligned	0	212	213	-1	1.00	High school diploma or equivalent	\$ 37,602	Supply equals Demand
	Healthcare Practitioners and Technical	Clinical & Technical	Registered Nurses	29-1141	priority	4	477	633	-156	1.33	Bachelor's degree	\$ 82,524	More Qualified Than Openings
	Healthcare Practitioners and Technical	Clinical & Technical	Licensed Practical and Licensed Vocational Nurses	29-2061	priority	4	124	25	99	0.20	Postsecondary nondegree award	\$ 62,157	More Openings Than Qualified
	Healthcare Practitioners and Technical	Clinical & Technical	Surgical Technologists	29-2055	aligned	4	23	4	19	0.17	Postsecondary nondegree award	\$ 63,741	More Openings Than Qualified
	Healthcare Practitioners and Technical	Clinical & Technical	Emergency Medical Technician	29-2042	aligned	0	38	9	29	0.24	Postsecondary nondegree award	\$ 40,571	Industry Expansion driving increased openings
	Healthcare Support	Direct Care Workers	Nursing Assistants	31-1131	priority	0	483	467	16	0.97	Postsecondary nondegree award	\$ 37,770	More Openings Than Qualified
	Healthcare Support	Direct Care Workers	Medical Assistants	31-9092	aligned	0	261	54	207	0.21	Postsecondary nondegree award	\$ 41,368	More Openings Than Qualified
	Personal Care & Service	Direct Care Workers	Home Health and Personal Care Aides	31-1120	aligned	n/a	3414	448	2966	0.13	High school diploma or equivalent	\$ 34,074	More Openings Than Qualified
	Personal Care & Service	Direct Care Workers	Patient Care Technicians	31-1132	aligned	0	18	0	18	0.00	High school diploma or equivalent	\$ 30,950	More Openings Than Qualified
	Community & Social Services	Community and Social Service Occupation	Substance Abuse, Behavioral Disorder, and Mental Health Counselors	21-1018	priority	5	314	83	231	0.26	No formal educational credential	\$ 52,062	More Openings Than Qualified
Educational Services (61)													
<i>Industry Sector(62) 2020-2030 Growth 12.02% MA DER Projections 2020-2030</i>	Education, Training & Library	Educator Support	Teacher Assistants/Para-Professionals K-12	25-9045	aligned	0	381	81	300	0.21	Some college, no degree	\$ 37,402.00	More Openings Than Qualified
	Education, Training & Library	Educator Support	Childcare Workers, Pre-K to Grade School	39-9011	aligned	0	235	188	47	0.80	High school diploma or equivalent	\$ 35,710.00	More Openings Than Qualified
Manufacturing (31)													
<i>Industry Sector(31) 2020-2030 Growth 7.85% MA DER Projections 2020-2030 Subsector-Fabricated Metal Product Manufacturing (332) 2020-2030 Growth 27.93 % MA DER Projections 2020-2030</i>	Production Operations	Advanced Manufacturing/ Supervisors	FirstLine Supervisors of Production and Operating Workers	51-1011	aligned	4	145	57	88	0.39	High school diploma or equivalent	\$ 66,805.00	More Openings Than Qualified
	Production Operations	Advanced Manufacturing/ Production Workers	Machinists	51-4041	aligned	5	166	0	166	0.00	High school diploma or equivalent	\$ 54,862	Requires Registered Apprenticeship
	Production Operations	Advanced Manufacturing/ Production Workers	Computer-Controlled Machine Tool Operators	51-9161	priority	4	84	86	-2	1.02	High school diploma or equivalent	\$ 48,950	Supply equals Demand
	Production Operations	Advanced Manufacturing/ Quality Control Workers	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	priority	4	136	40	96	0.29	High school diploma or equivalent	\$ 48,047	More Openings Than Qualified
	Installation, Maintenance, and Repair	Installation, Maintenance, and Repair	Industrial Machinery Mechanics	49-9041	priority	5	82	28	54	0.34	High school diploma or equivalent	\$ 60,514	More Openings Than Qualified

Sources:

MA DER Regional Occupation Explorer 1.00; WSC Data-Pioneer Valley
 MA DER UI Claimant Characteristics Report-Franklin/Hampshire and Hampden Counties Fall 2023
 MA DESE CVTE Graduation Report-2022
 Holyoke Community College Final FY23 Report for Line Cook Training-Supplemental Data A
 Lightcast Occupation_Overview_Social_and_Human_Service_Assistants_in_3_Massachusetts_Counties_3159, Associate degree or below
 * "Annual Openings" are from the DER Regional Occupation Explorer 1.00; WSC Data-Pioneer Valley
 ** "Annual Completions" (Supply) is based on the following available data formula:

MA DER Report Post-Secondary "Annual Completions" + "MassHire Career Centers (ITA's, Talent Bank, Claimant Reports)" + "Regional Training Vendors" + "Career Vocational-Technical Education Graduates" + Lightcast Program Graduation Data
 Note: MA DER Report Post-Secondary "Annual Completions" reflect total program graduates, some graduates may not persist in the region upon program completion

Attachment B - A. Supply Data for Priority, Critical and Emerging Industries, Occupations and Occupational Groupings

Pioneer Valley - Supporting & Regional Priority Industries and Occupations

Industry (NAICS)	Occupational Classifications	Occupational Grouping/Clusters	Occupation Title	SOC	MassTalent Alignment	MA DER STARS	Annual Openings	Annual Completions (Supply)	Supply Gap	Supply Gap Ratio	Education Level	Wages Annual Median	Characterization of Occupational Needs
Professional, Technical & Scientific Services (54)													
<i>Industry Sector(54) 2020-2030 Growth 3.83% MA DER Projections 2020-2030</i>													
	Office and Administrative Support	Office and Administrative Support	First-Line Supervisors of Office & Administrative Support Workers (4.2)	43-1011	aligned	5	329	9	320	0.03	High school diploma or equivalent	\$ 62,373	More Openings Than Qualified
	Office and Administrative Support	Office and Administrative Support	Bookkeeping, Accounting, and Auditing Clerks	43-3031	aligned	5	403	14	389	0.03	Some college, no degree	\$ 48,400	More Openings Than Qualified
	Office and Administrative Support	Office and Administrative Support	Tellers	43-3071	n/a	0	85	415	-330	4.88	High school diploma or equivalent	\$ 36,877	More Qualified Than Openings
	Office and Administrative Support	Office and Administrative Support	Customer Service Representatives	43-4051	priority	0	609	415	194	0.68	High school diploma or equivalent	\$ 39,809	More Openings Than Qualified
	Computer & Mathematical	Computer & Mathematical	Computer User Support Specialists	15-1232	aligned	4	83	112	-29	1.35	Some college, no degree	\$ 61,845	More Qualified Than Openings
Accommodations & Food Services (72)													
<i>Industry Sector(72) 2020-2030 Growth 49.15% MA DER Projections 2020-2030</i>													
	Food Preparation and Serving	Food Preparation and Serving	FirstLine Supervisors of Food Preparation and Serving Workers	35-1012	n/a	0	354	2	352	0.01	High school diploma or equivalent	\$ 40,945	More Openings Than Qualified
	Food Preparation and Serving	Food Preparation and Serving	Cooks, Restaurant	35-2014	n/a	0	507	99	408	0.20	No formal educational credential	\$ 36,273	More Openings Than Qualified
	Food Preparation and Serving	Food Preparation and Serving	Fast Food and Counter Workers	35-3021	n/a	0	1954	81	1873	0.04	No formal educational credential	\$ 31,485	More Openings Than Qualified
Agriculture, Forestry, Fishing and Hunting (11)													
<i>Industry Sector(72) 2020-2030 Growth 31.68% MA DER Projections 2020-2030</i>													
	Farming, Fishing and forestry	Farming, Fishing and forestry	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	n/a	0	151	58	93	0.38	No formal educational credential	\$ 35,144	More Openings Than Qualified
	Farming, Fishing and forestry	Farming, Fishing and forestry	Farmworkers, Farm, Ranch, and Aquacultural Animals	45-2093	n/a	0	25	58	-33	2.32	No formal educational credential	\$ 34,741	More Qualified Than Openings
Arts, Entertainment and Recreation (71)													
<i>Industry Sector(72) 2020-2030 Growth 100.7% MA DER Projections 2020-2030</i>													
	Food Preparation and Serving	Food Preparation and Serving	Cooks, Restaurant	35-2014	n/a	0	507	99	408	0.20	No formal educational credential	\$ 36,273	More Openings Than Qualified
	Personal Care and Service	Personal Care and Service	Amusement and Recreation Attendants	39-3091	n/a	0	134	57	77	0.43	No formal educational credential	\$ 29,974	More Openings Than Qualified
	Personal Care and Service	Personal Care and Service	Maids and Housekeeping Cleaners	37-2012	n/a	0	182	64	118	0.35	No formal educational credential	\$ 33,946	More Openings Than Qualified

MA DER Regional Occupation Explorer 1.00; WSC Data-Pioneer Valley

MA DER UI Claimant Characteristics Report-Franklin/Hampshire and Hampden Counties Fall 2023

MA DESE CVTE Graduation Report-2022

Holyoke Community College Final FY23 Report for Line Cook Training-Supplemental Data A

Lightcast Occupation_Overview_Social_and_Human_Service_Assistants_in_3_Massachusetts_Counties_3159, Associate degree or below

* "Annual Openings" are from the DER Regional Occupation Explorer 1.00; WSC Data-Pioneer Valley

** "Annual Completions" (Supply) is based on the following available data formula:

MA DER Report Post-Secondary "Annual Completions" + "MassHire Career Centers (ITA's, Talent Bank, Claimant Reports)" + "Regional Training Vendors" + " Career Vocational-Technical Education Graduates" + Lightcast Program Graduation Data
 Note: MA DER Report Post-Secondary "Annual Completions" reflect total program graduates, some graduates may not persist in the region upon program completion



Addendum to Summary of Technical Programs

At The

***Regional Community Colleges and Westfield State
University***

Graduation Data and Employment Status- 2019-2020

April 2021



Addendum to Summary of Technical Programs

At The

Regional Community Colleges and Westfield State University

Program Graduation and Employment Status

Priority Industry: Healthcare and Social Assistance

Priority Occupations	2019 Supply Gap (Ratio)
Registered Nurse SOC: 29-1141	-2,905 (.05)
Licensed Practical Nurse 29-2052	-276 (.52)
Pharmacy Technician SOC: 29-2052	-126 (.16)
Medical Assistant SOC: 31-9092	-3 (.99)
Patient Care Technician SOC: 31-1014	56 (1.12)
Physician Assistant SOC: 29-1071	-206 (.02)
Occupational Therapist SOC: 29-1122	-157 (.09)
Physical Therapist SOC: 29-1123	-547 (.01)
Human Service/Behavioral Health/Social Assistants	N/A

**Chart 1- Priority Industry: Healthcare and Social Assistance
Degree Status: Associate Degree**

Program	Community College	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Nursing	GCC	93	39	NA	NA
Nursing	HCC	92	31	NA	NA
Nursing	STCC	191	84	15	ENDO: 8 Unknown: 61
Health Science	GCC	234	8	NA	NA
Health Science	STCC	146	4	-0-	EDNO: 2
Foundations of Health	HCC	733	23	NA	NA
Human Services	GCC	35	0	NA	NA
Human Services	HCC	139	14	NA	NA
Human Services	STCC	127	12	2	ENDO: 1 Unknown: 8
Radiologic Technology	HCC	31	11	NA	NA
Radiologic Technology	STCC	34	14	-0-	
Dental Hygiene	STCC	37	17	1	
Health Information Technology	STCC	16	7	2	ENDO: 3
Medical Assistant	STCC	5	5	NA	NA
Medical Coding and Billing	STCC	38	12	1	
Medical Laboratory Technician	STCC	24	9	NA	NA
Medical Office Administrative Assistant	STCC	15	4	1	ENDO: 1
Occupational Therapy Assistant	STCC	22	2	NA	NA
Physical Therapy Assistant	STCC	32	14	NA	NA
Diagnostic Medical Sonography	STCC	20	9	NA	NA
Respiratory Care	STCC	32	13	2	ENDO: 2 Unknown: 9
Surgical Technology	STCC	37	13	2	ENDO: 1

Observations:

- Each community college offers an **Associate Degree-Nursing (ADN)** program with a primary goal of graduates obtaining a full or part time Registered Nurse position in a healthcare organization immediately following graduation and successful completion of the licensing process. Many graduates matriculate part time or full time, concurrent with employment, in a Bachelor's of Science- Nursing (BSN) program at an accredited regional four-year college or university.

- ✦ In the 2019-2020 academic year, **One Hundred Fifty-Four (154)** students from a total enrollment 376 students, graduated from the **Associate Degree-Nursing** program at the three community colleges. This is an extremely positive indicator toward mitigating the current Supply Gap Ratio (.05) in the Registered Nurse occupational classification in Region 2. Graduation levels for the 2020-2021 academic year, based on current student enrollment, look equally positive.
- ✦ In the 2019-2020 academic year, **Twenty -Five (25)** students were awarded **Associate Degrees** from the **Radiologic Technology** programs at HCC and STCC. This is an important contributor to satisfying the demand for Radiology Technicians in Region 2. Graduation projections for the 2020-2021 academic year, based on current student enrollment, indicate an equal or slightly higher number of graduates for the 2020-2021 academic year.
- ✦ The **Seventeen (17)** graduates from the **Dental Hygiene AD** program at STCC should mitigate demand needs in this occupation across Region 2. Enrollment levels indicate a similar number should present themselves for graduation in June 2021.
- ✦ Associate Degree programs in **Occupational Therapy Assistant** and **Physical Therapy Assistant** offered at STCC are associated with the Blueprint **Occupational Therapy** and **Physical Therapy** priority occupational classifications with Supply Gap Ratios of .09 and .02 respectively. **Two (2)** students successfully graduated from **Occupational Therapy Assistant** program from a student enrollment of 22 students. This graduation number appears low in comparison to the student enrollment of 22 students. The **Fourteen (14)** graduates from the **Physical Therapy Assistant** program is in-line with enrollment level of 32 students. Graduates should find employment opportunities available to them in a myriad of organizations providing PT related services.
- ✦ There are a total of **Twenty-Four (24)** graduates from the 61 students enrolled in the **Medical Coding and Billing AD** program (38) and one-year Certificate program (23) at STCC (**Chart 2**). Graduation data in the Certificate program at Holyoke Community College was not available, however MHCWB has estimated that an additional **Fourteen (14)**- 45% of the total enrollment of 32- were graduated from HCC's Medical Coding and Billing Certificate program. The addition of **Thirty-Eight (38)** Medical Coding and Billing professionals into the industry should mitigate needs in this occupational grouping.
- ✦ The availability of **Thirteen (13)** new Associate Degree graduates from the **Surgical Technology** program at STCC should address a need for this position in the acute care hospitals in Region 2.
- ✦ In the 2019-2020 academic year, **Thirteen (13)** students were awarded Associate Degrees from the **Respiratory Care** program at STCC. This is an important contributor to satisfying regional demand in this occupation. Graduation projections for the 2020-2021 academic year, based on student enrollment, look positive.

Chart 2-Priority Industry: Healthcare and Social Assistance
Degree Status: Certificate

Program	Community College	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Certificate Occupation NA- Not Available	CODE:ENDO (Employed-Non Certificate Occupation) Unknown
Dental Assistant	STCC	15	6	NA	2
Medical Assistant	GCC	44	33	NA	NA
Medical Assistant	HCC	40	0	NA	NA
Medical Assistant	STCC	19	15	NA	1
Medical Coding and Billing	HCC	32	0	NA	NA
Medical Coding and Billing	STCC	23	12	1	5
Addiction Studies	GCC	16	2	NA	NA
Addiction Studies	HCC	45	6	NA	NA
Medical Office Administrative Assistant	GCC	7	1	NA	NA
Medical Office Administrative Assistant	STCC	14	7	1	4
Practical Nursing (LPN)	GCC	35	25	NA	NA
Practical Nursing (LPN)	HCC	12	0	NA	NA
Direct Care/Community Health	HCC	69	1	NA	NA

Observations:

- STCC and GCC graduated **Forty-Eight (48)** students from their **Medical Assistant Certificate** programs, representing 76% of the total students who were enrolled in their respective programs in September 2019. The availability of these new graduates should contribute to mitigating the regional Supply Gap in this priority occupational classification.
- The One-Year Certificate program in **Addiction Studies** being offered at GCC and HCC is associated with the Social and Human Service Assistants priority occupational grouping identified in the Blueprint. **Eight (8)** students were graduated from the program during the 2019-2020 academic year. This graduation number appears low in relation to the 61 students reported as enrolled in the respective programs in September 2019, but is a positive supply-side indicator in response to the growing need for trained professionals in this occupational classification.

- ✦ The graduation of **Twelve (12)** students from the combined enrollment of 36 in the **Medical Office Administrative Assistant** Associate Degree program (STCC) and the one year Certificate programs at GCC and STCC will help fill a need for this support position across all the varying genres in the regional healthcare industry.
- ✦ The graduation of **Twenty-Five (25)** students from the **Practical Nursing (LPN)** program at GCC is critical to mitigating the Supply Gap .52 in this occupational classification in Region 2, particularly in Franklin Hampshire County.

Chart 3-Priority Industry: Healthcare and Social Assistance
Location: Westfield State University

Program	Bachelors	Masters	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
					Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Nursing	☒		126	30	5	NA
Health Sciences	☒		91	3	NA	NA
Nursing (RN→ BSN (STCC and GCC)	☒		WSU: 23 STCC:22 GCC: 16	WSU: 14 STCC:13 GCC: 9	NA	NA
Forensic Mental Health Counseling		☒	14	9	NA	NA
Social Work	☒	☒	Westfield: 202	139	NA	NA
Applied Behavioral Analysis		☒	23	13	NA	NA
Physician Assistant Studies		☒	54	48	NA	NA

Observations:

- ✦ The graduation of **Thirty (30)** students from the **Nursing (BSN)** program is a positive indicator toward mitigating the regional Supply Gap (.05) in this critical occupational classification. Based on enrollment, this positive trend to continue in 2021.
- ✦ The **Thirty-Six (36)** graduates from the **RN (AD) → BSN** provides additional BSN's to mitigate the regional Supply Gap (.05).
- ✦ The **Forty-Eight (48)** graduates from the **Physician Assistant Studies** program is extremely high, and a positive response to mitigating the Supply Gap (.02) in this critical occupational classification.

- ✦ The **One Hundred Thirty-Nine (139)** graduates from the **Social Work** program ensures the availability of a robust pool of qualified practitioners for a variety of social work positions throughout the region
- ✦ The graduation of **Thirteen (13)** students from the **Applied Behavioral Analysis** program, and **Nine (9)** graduates from the **Forensic Mental Health Counseling** is a positive supply-side factor going forward in the Social Assistance field.

**PRIORITY INDUSTRY: HEALTHCARE AND SOCIAL ASSISTANCE
SUMMARY OBSERVATIONS**

1. The 220 graduates with Bachelor of Science degree in Nursing (BSN) (66) and the Associate Degree in Nursing (ADN) (154) programs is a positive indicator toward mitigating the current Supply Gap Ratio (.05) in the Registered Nurse occupational classification in Region 2.
2. The graduation levels from the Technology-Specific Associate degree and Certificate programs should mitigate workforce needs in these targeted technical occupational groupings. Increasing program capacity and enrollment in selected technology Associate degree and Certificate programs should continue to be a focus at each community college.
3. The positive graduation levels in the Medical Assistant programs at the three community colleges is significant, and will clearly help mitigate demand in this occupation.
4. The 48 graduates from the Physician Assistant Studies program at Westfield State University is significant, and a key contributor toward ensuring the availability of professionals in this occupational classification in Region 2.

Priority Industry: *Advanced Manufacturing*

Priority Occupations	2019 Supply Gap (Ratio)
Production Worker Machinist SOC: 51-4041	-131 (.02)
Production Worker CNC Operator SOC: 51-4011	-60 (.81)
Inspectors, Testers, Quality Control SOC: 51-9061	-49 (.42)
Supervisors (Manufacturing-Specific) SOC: 51-1011	-23 (.23)
CNC Programmer SOC: 51-4012	-30 (.06)

Chart 4-Priority Industry: Advanced Manufacturing
Degree Status: Associate Degree

Associate Degree Program	Community College	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Mechanical Engineering Technology	STCC	119	29	3	Unknown: 16
Biotechnology	STCC	12	1	-	-
Biotechnology	HCC	15	1	NA	NA
Optics and Photonics	STCC	17	4	0	Unknown: 2
Biomedical Equipment Technology	STCC	13	1	0	Unknown: 1
Biomedical Manufacturing Technology	STCC	1	0	-	-

Observations:

- ✚ **Twenty-Nine (29)** graduates from a September 2019 enrollment of 119 students received an **Associate Degree** in **Mechanical Engineering Technology** at STCC. This graduation level is consistent with graduation levels documented by MHHCWB over the past three academic years, and is a positive supply side indicator to respond to the Supply Gap in priority occupational classifications in Advanced Manufacturing.
- ✚ Graduations from the **Optics and Photonics, Biomedical Equipment Technology, and Biomedical Manufacturing Technology** Associate Degree programs were limited and may reflect a smaller than planned number of completers for June

2020. Increasing enrollment may require developing strategies to use dual enrollment and articulation agreements with secondary schools in Region 2, as well as developing a targeted marketing plan to familiarize interested individuals with the positive career pathways that exist in these advanced manufacturing fields.

- The number of graduates from the new Biotechnology Associate Degree programs at HCC and STCC was limited, and may reflect a smaller than planned number of graduates for June 2020. September 2019 enrollment was in-line with planned enrollment levels.

**Chart 5-Priority Industry: Advanced Manufacturing
Degree Status: Certificate**

Program	Community Colleges	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Certificate Occupation NA- Not Available	CODE:ENDO (Employed-Non Certificate Occupation) Unknown
Engineering Technology	GCC	3	1	NA	NA
CAD/CAM	STCC	8	2	0	Unknown: 1
CNC Operations	STCC	29	9	0	ENDO: 1 Unknown: 5
Optics and Photonics	STCC	2	1	0	Unknown: 1

Observations:

- Nine (9)** individuals completed the one-year Certificate programs in **CNC Operations** at STCC. That number is in-line with graduation levels from the Certificate programs documented by MHHCWB over the past three academic years.

**PRIORITY INDUSTRY: ADVANCED MANUFACTURING
SUMMARY OBSERVATIONS**

- The number of graduates from the Associate Degree and Certificate programs in manufacturing is slightly higher than previous year’s data collected separately by MHHCWB, and is a positive response to mitigating the Supply Gap in priority occupational classifications in Advanced Manufacturing. Increasing enrollment leading to higher levels of graduates is essential to responding to the on-going need for talent in this priority regional industry.
- Increasing the number of graduates from the other Associate Degree and Certificate programs is directly connected to enrollment, and the Educator Work Group should support developing innovative approaches to marketing the programs, including developing more dual enrollment programs and articulation agreements with secondary schools.

Priority Industry: Educational Services

Priority Occupations	2019 Supply Gap (Ratio)
K-12 Teachers (Incl. Special Education/Bilingual) SOC: 25-2021	-460 (.38)
Paraprofessional/Techer Assistant SOC: 25-9041	-325 (.22)

Chart 6-Priority Industry: Educational Services
Degree Status: Associate Degree

Program	Community College	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Early Childhood Education (Includes Child Development Associate plus Certificate)	STCC	46	27	3	Unknown: 12
Early Education and Care	HCC	36	1	NA	NA

Observation:

- ✚ **Twenty-Seven (27)** students at STCC earned an Associate degrees in **Early Childhood Education** which includes Child Development Associate (CDA) plus Certificate. This is a positive indicator toward mitigating the on-going need for early childhood educators at the Pre-K levels in center based and family based Early Education and Care programs. Enrollment trends indicate a similar number of graduates will earn an Associate Degree in June 2021.

Chart 7-Priority Industry: Educational Services
Degree Status: Associate Degree (Transfer Option)

Program	Community College	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
				Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Early Childhood Education	GCC	32	3	<i>NOT APPLICABLE TO TRANSFER OPTION</i>	
Early Childhood Education	HCC	84	9		
Early Childhood Education	STCC	61	5		
Elementary Education	GCC	16	2		
Elementary Education	HCC	42	3		
Elementary Education	STCC	28	4		
Secondary Education	GCC	6	1		
Secondary Education	HCC	47	2		
Secondary Education	STCC	28	5		
Science- Mathematics	GCC	4	0		

Observations:

- ✚ The number of students, relative to program enrollment, graduating in 2019-2020 from the **Associate Degree-Transfer Option** programs offered at the three regional community colleges appears very small, and may not be a clear indicator of the past or future number of students transferring to a Bachelor’s level program immediately following completion of their Associate degree.
- ✚ Similarly, it appears that for the 2019-2020 academic year, a small number of students graduated from the Associate Degree concentration in **Elementary or Secondary Education- Transfer Option**. This may not be a clear indicator of the past or future number of students transferring to a Bachelor’s Degree program in **Elementary or Secondary Education** immediately following completion of their Associate degree.

Chart 8-Priority Industry: Educational Services
Location: Westfield State University- Bachelor’s Degree

Program	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
			Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
Early Childhood Education (Grades Pre-K-2),	152 (19 Licensure)	53 (26 Licensure)	2	NA
Elementary Education (Grades 1-6),	204 (34 Licensure)	62 (43 Licensure)	4	NA
Special Education: Moderate Disabilities (Grades PreK-8)	94 Total In Both Programs (9 Licensure)	30 Total In Both Programs (7 Licensure)	1	NA
Moderate Disabilities (Grades 5-12).	(5 Licensure)	(3 Licensure)	NA	NA

Observations:

- ✦ Westfield State University has a **Bachelor of Science- Education** major with licensure and licensure only programs designed to prepare graduates at the Massachusetts initial licensure level. **Employment Status numbers reflect self-reporting by individual graduates and may not reflect actual total Employment Status of degree program graduates.**
- ✦ The graduation of **Fifty-Three (53), (26 Licensure)** from the **Early Childhood Education** and **Sixty-Two (62), (43 Licensure)** from the **Elementary Education** Bachelor’s Degree programs ensures the availability of a strong pipeline of emerging educators at each of these two critical educational levels.
- ✦ The **Thirty (30), (10 Licensure)** graduates from the spectrum of **Special Education** program options is positive with enrollment indicating similar number of graduates for the 2020-2021 academic year. The availability for a sustainable flow of licensed special education teachers is critical to mitigating the Supply Gap (.38) along the Pre-K –Grade 12 continuum.

Chart 9-Priority Industry: Educational Services
Location: Westfield State University- Master's Degree

Program	Program Enrollment (Fall 2019)	Graduations Winter 2019 To Fall 2020	Employment Status	
			Employed in Degree Occupation NA- Not Available	CODE:ENDO (Employed-Non Degree Occupation) Unknown
School Counselor (Grades Pre-K-8, 5-12)	12	4	NOT APPLICABLE	
School Adjustment Counselor (Grades 5-12)	7	2		

Observations:

- ✚ Graduates from the **Master's Degree** program for both School Counselors, and in particular School Adjustment Counselor, is consistent with enrollment and an important contributor to ensuring the provision of social emotional supports to selected students along the Pre-K-Grade 12 spectrum.

PRIORITY INDUSTRY: EDUCATIONAL SERVICES
SUMMARY OBSERVATIONS

- 1. The number of graduates from the Associate Degree Early Childhood Education programs is a positive indicator toward mitigating the on-going need for early childhood educators at the Pre-K levels in center based and family based Early Education and Care programs.**
- 2. The number of graduates from the Associate Degree-Transfer Option programs at all educational program levels appears very small, and may not be a clear indicator of the past or future number of students transferring to a Bachelor's level program. Further analysis of this data will be done by the workforce boards and shared with the Educator Work Group.**
- 3. The graduation of 115 students from the Early Childhood Education and Elementary Education Bachelor's Degree programs at Westfield State University ensures the availability of a strong pipeline of credentialed professionals at these critical educational levels.**
- 4. Westfield State University's degree and licensure programs in Special Education are a key contributor toward ensuring the availability of licensed professionals to serve the growing number of students requiring additional supports and services.**



Second Addendum to Summary of Technical Programs

At The

Regional Community Colleges and Westfield State University

Program Enrollment and Enrollment Vs. Program Capacity

February 2023



***Addendum to Summary of Technical Programs
Regional Community Colleges and Westfield State University
Program Enrollment and Enrollment vs. Program Capacity
September 2022***

Enrollment Vs. Program Capacity	Symbol
Enrollment Exceeds Capacity	↑
Enrollment Equal to Capacity	↔
Enrollment Below Capacity	↓

Priority Industry: Healthcare and Social Assistance

Priority Occupations	2022 Supply Gap (Ratio)
Registered Nurse SOC: 29-1141	-2,144 (.24)
Licensed Practical Nurse 29-2061	-699 (.03)
Pharmacy Technician SOC: 29-2052	-128 (.03)
Medical Assistant SOC: 31-9092	-274 (.33)
Patient Care Technician SOC: 31-1131	-594 (.14)
Physician Assistant SOC: 29-1071	37 (1.47)
Occupational Therapist SOC: 29-1122	280 (5.24)
Physical Therapist SOC: 29-1123	-106 (.49)

**Priority Industry: Healthcare and Social Assistance
Degree Status: Associate Degree**

Program	Community College	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Nursing	GCC	70			↓
Nursing	HCC	96		↔	
Nursing	STCC	160		↔	
Health Science	STCC	208			↓
Foundations of Health	HCC	494			↓
Human Services	HCC	110			↓
Human Services	STCC	105			↓
Radiologic Technology	HCC	27			↓
Radiologic Technology	STCC	38			↓
Dental Hygiene	STCC	36		↔	
Health Information Technology	STCC	11			↓
Medical Assistant	STCC	2			↓
Medical Coding and Billing	STCC	61			↓
Medical Laboratory Technician	STCC	18			↓
Medical Office Administrative Assistant	STCC	20			↓
Occupational Therapy Assistant	STCC	17			↓
Physical Therapy Assistant	STCC	31			↓
Diagnostic Medical Sonography	STCC	19		↔	
Respiratory Care	STCC	31			↓
Surgical Technology	STCC	27			↓

Observations:

- ✚ Each community college offers an **Associate- Science Nursing (ASN)** program with a primary goal of graduates obtaining a full or part time Registered Nurse position in a healthcare organization immediately following graduation and successful completion of the licensing process. Many graduates matriculate part time or full time, concurrent with employment, in a Bachelor’s of Science- Nursing (BSN) program at an accredited regional four-year college or university.
- ✚ Currently, **326** students were enrolled in the **Associate- Science Nursing** program at the three community colleges. This is a positive indicator toward mitigating the current Supply Gap Ratio (.24) in the Registered Nurse occupational classification.

Enrollment at HCC and STCC is Equal to Program Capacity, while GCC has Capacity to enroll additional students into the program.

- ✦ STCC offers an **Associate Degree- Health Science**, where students learn about the multifaceted aspects of healthcare including a broad survey of health care jobs and potential short-term certificate programs, and complete many of the prerequisites for transfer into professional health occupations program at the community college or transfer to a bachelor's degree program.
- ✦ Currently, **208** students are enrolled in the **Associate Degree- Health Science** program at STCC, with Program Capacity to enroll additional students. HCC's **Associate Degree-Foundations of Health** program has **494** students enrolled with Capacity to enroll more students.
- ✦ HCC and STCC, offer an AD Transfer Option in **Human Services**. The **215** students enrolled in the program is a positive indicator to mitigating anticipated supply-side shortages. STCC and HCC have Program Capacity to enroll additional students.
- ✦ There are **65** students enrolled in the **Radiologic Technology** program HCC and STCC. Enrollment in this occupational classification indicates strong student interest in this field.
- ✦ The **Diagnostic Medical Sonography** program at STCC has an enrollment of **19** students that is consistent with planned Program Capacity and indicates strong student interest in this field.
- ✦ The **Dental Hygiene** program at STCC has an enrollment of **36** students that is consistent with planned Program Capacity and indicates strong student interest in this field.
- ✦ Associate Degree programs in **Occupational Therapy Assistant** and **Physical Therapy Assistant** offered at STCC are associated with the Blueprint **Occupational Therapy** and **Physical Therapy** priority occupational classifications with Supply Gap Ratios of 5.24 and .49 respectively. The enrollment of **48** students in both AS programs is a positive indicator going forward.
- ✦ There are **61** students enrolled in the **Medical Coding and Billing** AS program at STCC. Although Enrollment is Below Program Capacity, it appears to be in line and consistent with current labor market demand in this occupation.

Priority Industry: Healthcare and Social Assistance
Degree Status: Certificate

Program	Community College	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Dental Assistant	STCC	6			↓
Medical Assistant	GCC	25			↓
Medical Assistant	HCC	43		↔	
Medical Assistant	STCC	26			↓
Medical Coding and Billing	HCC	31		↔	
Medical Coding and Billing	STCC	20			↓
Addiction Studies	GCC	10			↓
Addiction Studies	HCC	29			↓
Alcohol and Drug Counseling	STCC	20			↓
Medical Office Administrative Assistant	GCC	7			↓
Medical Office Administrative Assistant	STCC	7			↓
Practical Nursing (LPN)	GCC	30		↔	
Practical Nursing (LPN)	HCC	9			↓
Direct Care/Community Health	HCC	21		↔	
Pre-Nursing Certificate	GCC	146			↓
Paramedic Certificate	GCC	36			↓

Observations:

- ✚ Ninety-Four (**94**) students enrolled in the **Medical Assistant** (Supply Gap Ratio.33) program at the regions three community colleges, and program graduates should contribute to mitigating the regional Supply Gap in this priority occupational classification.
- ✚ The enrollment (**31**) in the **Medical Coding and Billing** program at HCC is significant and in line with program capacity. STCC’s enrollment of 20 students is positive. The program appears to have Capacity to enroll additional students.
- ✚ The One-Year Certificate program in **Addiction Studies** offered at GCC and HCC is associated with the Social and Human Service Assistants priority occupational grouping identified in the Blueprint. Thirty- Nine (**39**) students are enrolled in the two Certificate programs, with additional enrollment capacity available at each institution. This is a positive supply-side indicator. Current enrollment is consistent with regional labor market demand in this field.

- ✚ The combined enrollment of **14** in the **Medical Office Administrative Assistant** Certificate programs at GCC and STCC appears to be significantly Below Program Capacity and may warrant review by each institution.
- ✚ The **Alcohol and Drug Counseling** Certificate program at STCC has **20** students enrolled with capacity to increase enrollment in this area.
- ✚ The **Direct Care/Community Health** program at HCC with an enrollment of **21** students is a positive indicator to responding to the demand for employees at this rapidly growing regional occupational grouping.
- ✚ The **Practical Nursing (LPN)** program enrollment at GCC (**30**) is strong and equal to Program Capacity. The LPN program at HCC has capacity to enroll additional students. Both programs are critical to mitigating the critical Supply Gap .03 in this occupational classification.
- ✚ The GCC **Paramedic** Certificate program enrollment of **36** students is a positive indicator to responding to the demand for employees at this regional occupation.

Priority Industry: Healthcare and Social Assistance
Location: Westfield State University

Program	Bachelors	Masters	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
				↑	↔	↓
Nursing	☒		126		↔	
Health Sciences	☒		91		↔	
Nursing (RN→ BSN (STCC and GCC)	☒		WSU: 23 STCC:22 GCC: 16		↔	↓
Forensic Mental Health Counseling		☒	14			↓
Social Work	☒	☒	Westfield: 202			↓
Applied Behavioral Analysis		☒	23		↔	
Physician Assistant Studies		☒	54		↔	

Observations:

- ✚ The enrollment (**126**) in the **BSN Nursing** program at WSU is Equal to Program Capacity and a positive indicator toward mitigating over time the regional Supply Gap of .24 in this critical occupational classification.

- ✚ The enrollment (**61**) in the **RN (AD)** → **BSN** provides additional BSN's have to mitigate the regional Supply Gap of .24.
- ✚ The enrollment (**54**) in the **Physician Assistant Studies** program is a positive sign to respond to the Supply Gap .147 in this critical occupational classification.
- ✚ The **Applied Behavioral Analysis** program with **23** students enrolled is a positive supply-side factor going forward in the Social Assistance field.

**PRIORITY INDUSTRY: HEALTHCARE AND SOCIAL ASSISTANCE
SUMMARY OBSERVATIONS**

1. Enrollment in the Registered Nursing programs at the Bachelor's Degree and Associate Degree levels is significant, with Enrollment Equal to Program Capacity.
2. Enrollment in Associate Degree programs focused on specialized Technician level occupational positions is significant, with Enrollment Equal to Program Capacity.
3. Program Capacity to enroll additional students exists in selected AD and Certificate level programs.

Priority Industry: Advanced Manufacturing

Priority Occupations	2019 Supply Gap (Ratio)
Production Worker Machinist SOC: 51-4041	-29 (.72)
Production Worker CNC Operator SOC: 51-9162	60 (2.18)
Inspectors, Testers, Quality Control SOC: 51-9061	-40 (.69)
Supervisors (Manufacturing-Specific) SOC: 51-1011	-23 (.23)
CNC Programmer SOC: 51-4012	-7 (0.00)

Priority Industry: Advanced Manufacturing
Degree Status: Associate Degree

Associate Degree Program	Community College	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Mechanical Engineering Technology	STCC	91		↓	
Biotechnology	STCC	Program Suspended		-	
Biotechnology	HCC	10		↓	
Optics and Photonics	STCC	24		↓	
Biomedical Equipment Technology	STCC	Program Suspended		-	
Biomedical Manufacturing Technology	STCC	Program Suspended		-	
Electrical Engineering Technology	STCC	43		↓	

Observations:

- ✚ The enrollment of **91** students in the **Associate Degree-Mechanical Engineering Technology** at STCC is a positive supply side indicator to respond to the Supply Gap in priority occupational classifications in Advanced Manufacturing.
- ✚ The enrollment of **24** students in the **Optics and Photonics** Associate degree program at STCC is positive with Capacity to enroll additional students.
- ✚ Lower than planned Enrollment in the **Biomedical Equipment Technology, and Biomedical Manufacturing Technology** programs at STCC resulted in the suspension of both programs.

Priority Industry: Advanced Manufacturing
Degree Status: Certificate

Program	Community Colleges	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
CAD/CAM	STCC	5		↓	
CNC Operations	STCC	16		↓	
Optics and Photonics	STCC	5		↓	
Engineering Science	GCC	43		↔	
Robotics	STCC	2		↓	

Observations:

- ✦ Enrollment in the one-year Certificate programs at STCC, other than in the CNC Operations (16) program are below program capacity and not a significant factor in mitigating current Supply Gaps in selected priority occupational classifications in manufacturing.
- ✦ The enrollment of 43 students in the **Engineering Science** program at GCC is a positive indicator of student interest in the engineering aspect of advanced manufacturing and bodes well for the regional industry moving forward.
- ✦ Each community college offers an array of **Non-Credit Certificates/Courses/Modules** related to advanced manufacturing focused on preparing students with foundational skills that will prepare them for entry-level production positions in the **CNC Operator** occupational classification.

PRIORITY INDUSTRY: ADVANCED MANUFACTURING SUMMARY OBSERVATIONS

1. Enrollment in the Associate Degree and in Mechanical Engineering Technology is a positive response to the Supply Gap in priority occupational classifications in Advanced Manufacturing.
2. Enrollment in the other Associate Degree and Certificate programs are Below Program Capacity and may require developing dual enrollment and articulation agreements with secondary schools, as well as a targeted marketing plan to increase program enrollment.

Priority Industry: Educational Services

Priority Occupations	2019 Supply Gap (Ratio)
Pre- School Teachers, Except Special Education SOC:25-2011	-87 (0.70)
Elementary School Teachers, Except Special Education SOC:25-2021	-197 (0.50)
Paraprofessional/Techer Assistant SOC: 25-9041	-263 (0.56)

Priority Industry: Educational Services
Degree Status: Associate Degree

Program	Community College	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Early Education and Care	HCC	32			↓

Observations:

- ✚ The enrollment of **32** students in HCC’s **Early Education and Care** Associate program is positive, with additional program capacity.

Program	Community College	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Early Childhood Education	GCC	20			↓
Early Childhood Education	HCC	56			↓
Early Childhood Education	STCC	75			↑
Elementary Education	HCC	32			↓
Elementary Education	STCC	23			↓
Secondary Education	HCC	49			↓
Secondary Education	STCC	22			↓

Priority Industry: Educational Services
Degree Status: Associate Degree (Transfer Option)

Observations:

- ✚ The **Associate Degree-Transfer Option** programs offered at the regional community colleges are clearly associated with the Blueprint Priority **K-12 Teachers** and **Early Childhood Teachers** occupational classifications.
- ✚ There are **151** students enrolled in the **Early Childhood Education** Associate Degree-Transfer Option at the three regional community colleges, with additional program capacity available at both GCC and HCC. This is a positive indicator for future matriculation to a Bachelor’s Degree program leading to early childhood teacher positions in community based center programs and public school settings.

- Combined Enrollment of **126** students in the **Elementary and Secondary Education (Transfer Option)** programs at STCC and HCC is a positive sign with each program having Capacity to increase student enrollment.

Priority Industry: Educational Services
Degree Status: Certificate

Program	Community Colleges	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
			↑	↔	↓
Early Childhood Education	GCC	5		↓	
Early Childhood Education	STCC	25		↓	

Observations:

- There are **30** students enrolled in the **Early Childhood Education** Certificate programs at GCC and STCC with additional program capacity available at both community colleges.

Priority Industry: Educational Services
Location: Westfield State University-Bachelor’s Degree

Program	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
		↑	↔	↓
Early Childhood Education (Grades Pre-K-2),	110		↓	
Elementary Education (Grades 1-6),	160		↓	
Special Education: Moderate Disabilities (Grades PreK-8)	60		↓	
Moderate Disabilities (Grades 5-12).	15		↓	

Observations:

- Westfield State University has a **Bachelor of Science-Education** major with licensure and licensure only programs designed to prepare graduates at the Massachusetts initial licensure level. Degree programs include the following:

- ✦ The enrollment in the **Early Childhood Education (110)** and **Elementary Education (178)** Bachelor’s Degree programs is positive with Capacity to increase enrollment in each program.
- ✦ The enrollment of **75** students in the spectrum of **Special Education** program options is positive with Capacity to enroll additional students in each program specialization. The need for a sustainable flow of licensed special education teachers is critical to mitigating the Supply Gap along the Pre-K –Grade 12 continuum.

Priority Industry: Educational Services
Location: Westfield State University- Master’s Degree

Program	Program Enrollment (Fall 2022)	Enrollment Vs. Program Capacity		
		↑	↔	↓
School Counselor (Grades Pre-K-8, 5-12)	12		↔	
School Adjustment Counselor (Grades 5-12)	16		↔	

Observation:

- ✦ The Enrollment of **28** post-graduate students in the **Master’s Degree** program for School Counselors and School Adjustment Counselor will assist in the provision of supports to selected students at all levels of elementary and secondary education. Each Master’s program has Capacity to enroll additional post-graduate students.

PRIORITY INDUSTRY: EDUCATIONAL SERVICES
SUMMARY OBSERVATIONS

- Enrollment in the Associate Degree Early Childhood Education programs is Equal to Program Capacity and should increase the number of Teachers and Lead Teachers at the Pre-K levels in center- based and family based EEC programs.**
- Enrollment levels in Early Childhood Education, Elementary Education, and Secondary Education AS Transfer Option programs are positive with additional Program Capacity to increase program enrollment at each community college.**
- Enrollment levels in Early Childhood Education, Elementary Education, and Special Education at the Bachelor’s degree level at WSU are positive, with additional Program Capacity to increase enrollment in each field of study.**

