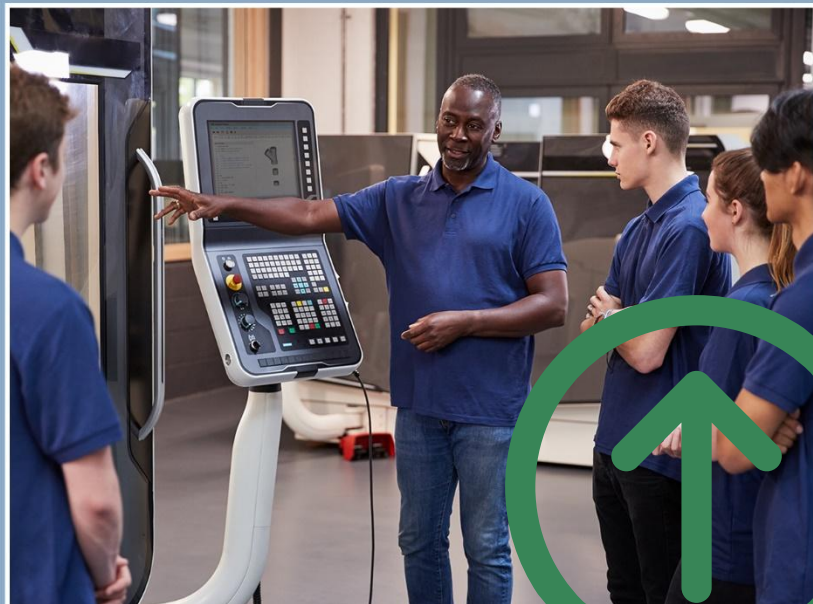
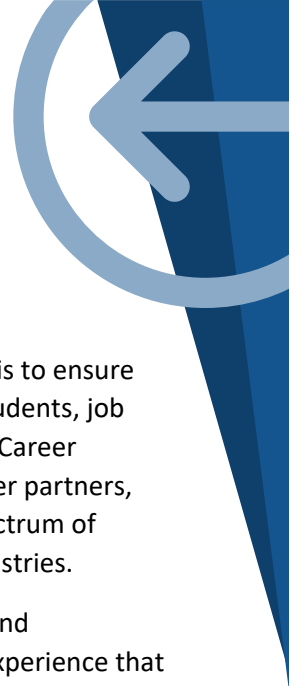


Registered Apprenticeship and Career Pathways in Massachusetts



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT



Introduction

A shared goal of Massachusetts's workforce development, education, and apprenticeship partners is to ensure that businesses have access to the right talent to help grow vibrant regional economies and that students, job seekers, and workers have access to career pathways leading to jobs with family-sustaining wages. Career pathways provide a framework for integrated education and training systems where these and other partners, such as economic development and human services, come together to design and deliver a full spectrum of training and related services that support the growth of talent needed to fill jobs in in-demand industries.

Apprenticeship, as a critical component of robust career pathways, provide students, job seekers, and workers with a combination of related technical instruction and real-world, on-the-job paid work experience that enables them to quickly develop their skills and apply and hone them in relevant work contexts. Full integration of pre-apprenticeship and Registered Apprenticeship Programs into Massachusetts' education and workforce systems will result in more comprehensive career pathways that benefit both businesses and workers.

Purpose

This resource focuses on how apprenticeship can be used to build stronger and more robust career pathways. As a companion piece to the Apprenticeship Career Pathways Resources, it provides ideas, strategies, and resources that can be used to explore how pre-apprenticeship and Registered Apprenticeship Programs can be better leveraged and aligned to help students, job seekers, and workers move along career pathways that result in increased skills, higher wages, and advancement opportunities. This resource is useful for educators at the secondary and post-secondary levels, workforce service providers of training and related services, employers and other sponsors of Registered Apprenticeship Programs, and others that contribute to building career pathways in in-demand industries in the state.

What are the Apprenticeship Career Pathways Resources?

The Apprenticeship Career Pathways Resources are visual tools that provide accessible information about career pathways in a variety of key industries. The Pathways Resources feature many occupations that are accessible through participation in pre-apprenticeship and Registered Apprenticeship Programs in Massachusetts. The Pathways Resources include a range of career "ladders," and provide additional information about typical education and training requirements and wage ranges and projected growth for included occupations.



Why Focus on Registered Apprenticeship?

Expanding pre-apprenticeship and Registered Apprenticeship Programs in Massachusetts is a strategic priority at the state and regional levels. Massachusetts has already achieved significant growth in Registered Apprenticeship, with over 1,500 new apprentices in the state since 2018. Apprenticeship is growing because of the value it delivers.

- ➔ **Apprenticeship meets employers' workforce needs:** Employers drive the design of apprenticeship on-the-job learning and related technical instruction, so workers skills are aligned precisely to employers' competency and performance needs.
- ➔ **Apprenticeship provides workers the skills they need to succeed:** Because apprenticeship is demand-driven, apprentices are assured that what they learn will make them competitive in the labor market. Registered Apprenticeship Programs combine technical instruction with hands-on learning, on the job – a combination that helps individuals learn quickly, develop proficiency, and apply and enhance their skills over time.
- ➔ **Apprenticeship is “earn while you learn”:** Apprentices earn wages while in training, which helps them build financial security without assuming significant student loan debt.
- ➔ **Apprenticeship is a proven workforce development tool for diverse industries:** While apprenticeship has long been a successful talent development strategy in the construction industry, leading companies in advanced manufacturing, healthcare, technology, and other industries are increasingly realizing similar workforce results through apprenticeship.
- ➔ **Apprenticeship creates opportunity for diverse populations:** Apprenticeship offers traditionally underrepresented individuals, such as women, people of color, and others, pathways into new industries and occupations and helps employers diversify their workforces.
- ➔ **Apprenticeship operationalizes meaningful career pathways:** Career pathways development traditionally focuses primarily on high school to college degree progressions. Apprenticeship bridges the gaps in this model by connecting more comprehensive career development opportunities to traditional secondary and post-secondary education. In addition, many apprenticeship programs enable apprentices to earn college credit while in training, which can make it easier for them to later obtain additional post-secondary credentials on top of their apprenticeship completion certificates.

In addition to the benefits for employers and students, job seekers, and workers, apprenticeship has significant value for education and workforce partners in Massachusetts.

- ➔ Incorporating apprenticeship models expands and diversifies the workforce preparation “toolkit” available to workforce and education providers.
- ➔ Apprenticeship increases the likelihood that customers will gain meaningful skills and credentials and have an opportunity for lifelong learning, and reduces “cycling” of repeat customers in MassHire Career Centers who have difficulty achieving desired outcomes.
- ➔ Increasing the number of individuals in the state with industry-recognized post-secondary credentials establishes partners' credibility with industry and employers and helps them better meet evolving business demand over time.

Resources to Explore Using Apprenticeship to Build Stronger Career Pathways

Pre-Apprenticeship and Registered Apprenticeship Programs

Learn more about pre-apprenticeship and apprenticeship by visiting the Mass.gov apprenticeship website at <https://www.mass.gov/topics/apprenticeships> and the US Department of Labor (US DOL) apprenticeship website at <https://www.apprenticeship.gov/>. Explore these sites to learn about how apprenticeship works, promising practices for developing apprenticeship programs for different industries and underrepresented populations, and return on investment for students and employers.

- ➔ Learn more about apprenticeship opportunities in Massachusetts at <https://www.mass.gov/info-details/explore-apprenticeships-in-massachusetts>.
- ➔ Access the Massachusetts Regional Labor Market Blueprints, which provide a wealth of regional workforce, labor market, and economic information, including apprenticeship information, at <https://www.mass.gov/service-details/view-your-regions-blueprint>. Data updated in 2019 for each region is available at <https://www.mass.gov/service-details/2019-data-package-update>.
- ➔ Visit the section of US DOL's apprenticeship website for educators at <https://www.apprenticeship.gov/educators>.
- ➔ Watch US DOL's *Introduction to Apprenticeship* course for workforce and education partners at <https://www.dol.gov/apprenticeship/toolkit/learn.htm>.
- ➔ Read US DOL's *Framework for a Quality Pre-Apprenticeship Program* at https://wdr.doleta.gov/directives/attach/TEN/TEN_13-12_Acc.pdf.
- ➔ Access promising practices and other resources for successful pre-apprenticeship programs at <https://apprenticeship.workforcegaps.org/resources/2017/04/10/11/56/Pre-Apprenticeships-Building-Strong-Apprentices>.

For Sponsors, Employers, and Partners: Creating New Apprenticeship Programs

Apprenticeship programs registered with the Massachusetts Division of Apprentice Standards (DAS) can be run directly by employers or through sponsor organizations, such as unions, employer associations, or community-based intermediaries. The registration process is different depending on whether the program falls into the category of Expansion Industries (e.g. advanced manufacturing, healthcare, technology) or Building Trades that are subject to prevailing wage regulations.

- ➔ If the program falls under the Building Trades category, the process starts with calling DAS at (617) 626-5409 to schedule a meeting.
- ➔ For Expansion Industries, the first step is for an employer to decide to sponsor the apprenticeship program itself or work with an intermediary that serves as the sponsor. If working through an intermediary, then the employer does not need to register with DAS. However, the intermediary should be registered with DAS.



Both Massachusetts and US DOL provide tools that help interested employers and sponsors connect to the apprenticeship system. Other organizations, such as partners from education, workforce development, economic development, and non-profit organizations, can provide labor market information for a prospective apprenticeship program, identify resources available to leverage, and determine how to best work together to support employers and sponsors. Employers and sponsors should consider meeting with the Local Workforce Development Board, industry sector partnerships, or other relevant existing groups in the region to identify new opportunities for apprenticeship development or expansion.

- Learn how to register a new apprenticeship program in Massachusetts at <https://www.mass.gov/guides/registering-an-apprenticeship-program-for-expansion-industries>.
- Learn how to create or join an existing apprenticeship program from US DOL at <https://www.apprenticeship.gov/employers/registered-apprenticeship-program/build>.

For Educators: Connecting Education and Apprenticeship

Helpful strategies to embed apprenticeship as an education and training model include expanding youth apprenticeship offerings, integrating apprenticeship into career and technical education (CTE), and pursuing policy changes that allow apprenticeships to connect seamlessly with post-secondary educational pathways. When aligning education and apprenticeship along career pathways, there are a myriad of ways to help accelerate learning and skill development. Educators will want to consider each of the following key elements when developing a career pathway and pipeline for work-based learning programs:

- **Modularized courses and competency-based courses:** Traditional-length courses (e.g. semester-long courses) that are “chunked” into shorter components focused upon attainment of particular skills and competencies.
- **Sequenced courses and stackable credentials:** Courses that are sequenced and linked in clear learning pathways for students and that embed attainment of sub-degree-level credentials throughout.
- **Flexible delivery:** Programs and courses that are offered outside of traditional hours, are self-paced, combine classroom and online learning, etc.
- **Dual credit:** Programs that enable learners to earn credit and credentials simultaneously rather than sequentially (e.g. programs through which high school students can earn college course credit and associate's degrees).
- **On-ramps for underprepared learners:** Bridge programs and related supports that help underprepared learners succeed in post-secondary-level training and education (e.g. integrated education and training programs that combine foundational skills development with technical skills development).
- **Paired courses/learning communities:** Programs that pair related training content for cohorts of learners that proceed through training over time as a group.
- **Multiple entry/exit points:** Clearly defined and accessible on-ramps and off-ramps for education and training.



The following resources can support efforts to connect education and apprenticeship systems.

YOUTH APPRENTICESHIP RESOURCES

- The Partnership to Advance Youth Apprenticeship (PAYA)'s repository of information on topics related to youth apprenticeship – <https://www.newamerica.org/education-policy/partnership-advance-youth-apprenticeship/about/our-resources/>.
- US DOL's webpage with information and resources on high school apprenticeship – <https://www.apprenticeship.gov/educators/high-school>.
- WorkforceGPS Apprenticeship Community of Practice page with resources, program examples, and tools on youth apprenticeship – https://apprenticeship.workforcegps.org/resources/2017/02/02/10/56/Apprenticeship_Youth.

CAREER AND TECHNICAL EDUCATION AND APPRENTICESHIP RESOURCES

- *Connecting Secondary Career and Technical Education and Registered Apprenticeship: A Profile of Six State Systems* from the U.S. Department of Education (US ED) introduces apprenticeship and pre-apprenticeship programs that begin in high school CTE programs – <https://sites.ed.gov/underservedyouth/files/2017/01/MS5-Connecting-Secondary-Career-and-technical-Education-and-Registered-Apprenticeship-A-profile-of-Six-State-Systems.pdf>.
- US ED report on *Connecting Secondary Career and Technical Education and Registered Apprenticeship* – <https://sites.ed.gov/underservedyouth/files/2017/01/MS5-Connecting-Secondary-Career-and-technical-Education-and-Registered-Apprenticeship-A-profile-of-Six-State-Systems.pdf>.
- Technical assistance resource from US ED on CTE and apprenticeship instructional alignment and program articulation – https://cte.ed.gov/view_module/43.
- Resources from US ED on improving pathways for high school CTE students to post-secondary education and employment through apprenticeships in science, technology, engineering, and math (STEM) – <https://cte.ed.gov/initiatives/work-based-learning>.

COMMUNITY COLLEGE AND APPRENTICESHIP RESOURCES

- US DOL webpage on roles that community colleges play in apprenticeship – <https://www.apprenticeship.gov/educators/community-colleges>.
- WorkforceGPS Apprenticeship Community of Practice page providing information and examples on apprenticeship and community colleges – <https://apprenticeship.workforcegps.org/resources/2017/04/10/11/14/The-Role-of-Community-Colleges-in-Registered-Apprenticeship>.
- The Registered Apprenticeship-College Consortium Articulation Framework information – https://www.doleta.gov/OA/pdf/ra_cc.pdf.
- Chapter in an Urban Institute report discusses how community colleges can assess their readiness for apprenticeship (found starting on page 91) – https://www.urban.org/sites/default/files/publication/101353/skilling_up_the_scope_of_modern_apprenticeship_0.pdf.



You Can Start Now

Whether you are a middle-school teacher or counselor helping students first explore careers, a high school or post-secondary educator preparing students for the workplace, a career coach, or a business services representative, there are a number of ways to get involved! Research what is already available in your area, connect with employers, work to create an apprenticeship program, or align applied learning in the classroom. To learn more about promising practices and program models for using apprenticeship to build stronger career pathways, visit the sites below.

Promising Practices

- Watch the *Aligning CTE to Apprenticeship* video (video 1 of 2), which includes promising practices from Kentucky, Washington, and New York, at https://cte.ed.gov/view_module/42.
- Watch the *Aligning CTE to Apprenticeship* video (video 2 of 2), which includes a taxonomy for understanding instructional alignment and program articulation approaches for connecting CTE and apprenticeship, and a promising practice from North Carolina, at https://cte.ed.gov/view_module/43.
- Check out examples of outreach materials designed for youth, parents, and school counselors at <https://apprenticeship.workforcegps.org/resources/2017/02/02/09/38/Outreach-to-Youth-Parents>.
- Read a US ED blog on four promising high school apprenticeship programs at <https://sites.ed.gov/octae/tag/apprenticeship/>.
- View a visual from Apprenticeship Carolina on the youth apprenticeship model at <http://www.apprenticeshipcarolina.com/images/youth-apprenticeship-process.png>.
- Read three success stories about community colleges and apprenticeship at <https://www.apprenticeship.gov/employers/case-studies/harper-college>, <https://www.apprenticeship.gov/employers/case-studies/macomb-community-college>, and <https://www.apprenticeship.gov/employers/case-studies/j-sargeant-reynolds-community-college>.