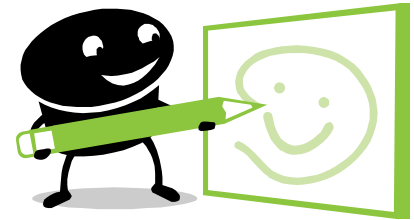


MACWIC Example to Illustrate the Alliance for Quality Career Pathways Beta Framework

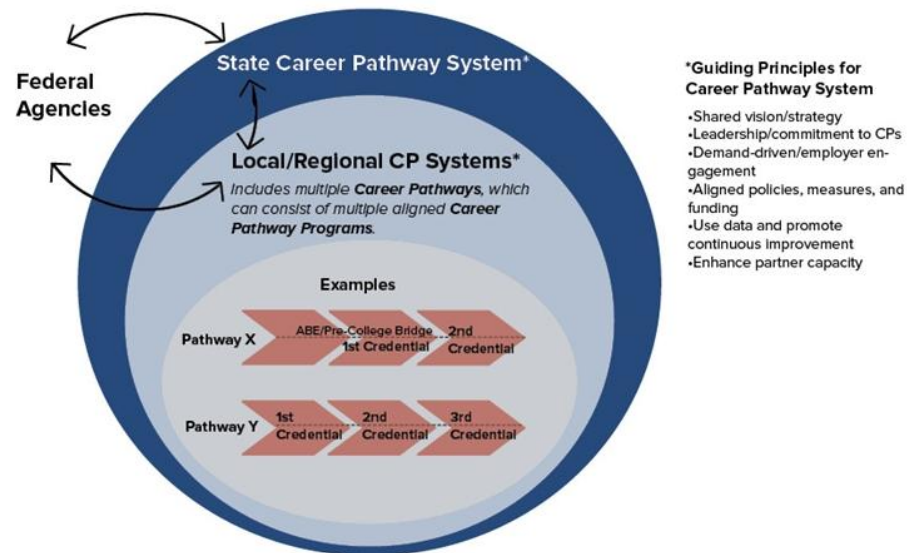
Presented by CLASP/Alliance for Quality Career Pathways and the Manufacturing Advancement Center Workforce Innovation Collaboration (MACWIC) at the Massachusetts Jobs and Workforce Summit, October 9, 2013



The Career Pathway Approach (AQCP working definition):

- An approach to connecting progressive levels of basic skills and postsecondary education, training, and supportive services...
 - in specific sectors or cross-sector occupations;
 - in a way that optimizes the progress and success of individuals – including those with limited education, English, skills, and/or work experience;
 - to help individuals secure marketable credentials, family-supporting employment, and further education and employment opportunities.
- Career pathways help employers meet their workforce needs and help states and communities strengthen their workforces and economies

Career Pathway Systems (AQCP working “conceptual model”)



MACWIC's Local/Regional Partnerships

| AQCP Framework: Local/Regional Partnership Indicator | MACWIC Example |
|--|---|
| <p>Criteria 1.1: Local/regional partnership includes: (1) employer and labor representative from industries and occupations that are significant to the local/regional economy to assure that the partnership is attuned to industry demand; and (2) agencies, institutions, and organizations that provide critical functions in the CP system for the target population, including education, training, employment services, and support services.</p> | <p><u>Industry Representatives:</u> Manufacturing employers</p> <p><u>Industry Associations:</u> Manufacturing Advancement Center</p> <p><u>Statewide agencies:</u> Massachusetts Manufacturing Extension Partnership (MassMEP) Executive Office of Labor and Workforce Development Workforce Training Fund</p> <p><u>Education and Training:</u> Worcester Polytechnic Institute & other 4-year institutions Community Colleges Technical High Schools Continuing Education Providers</p> <p><u>Employment Services:</u> MassMEP and Career Centers</p> <p><u>Support Services:</u> Career Centers and CBOs</p> |

MACWIC's Career Pathway

Definition of Career Pathway from the AQCP Framework:

Local/regional career pathway systems are comprised of *specific sector or cross-sector occupational career pathways* that consist of:

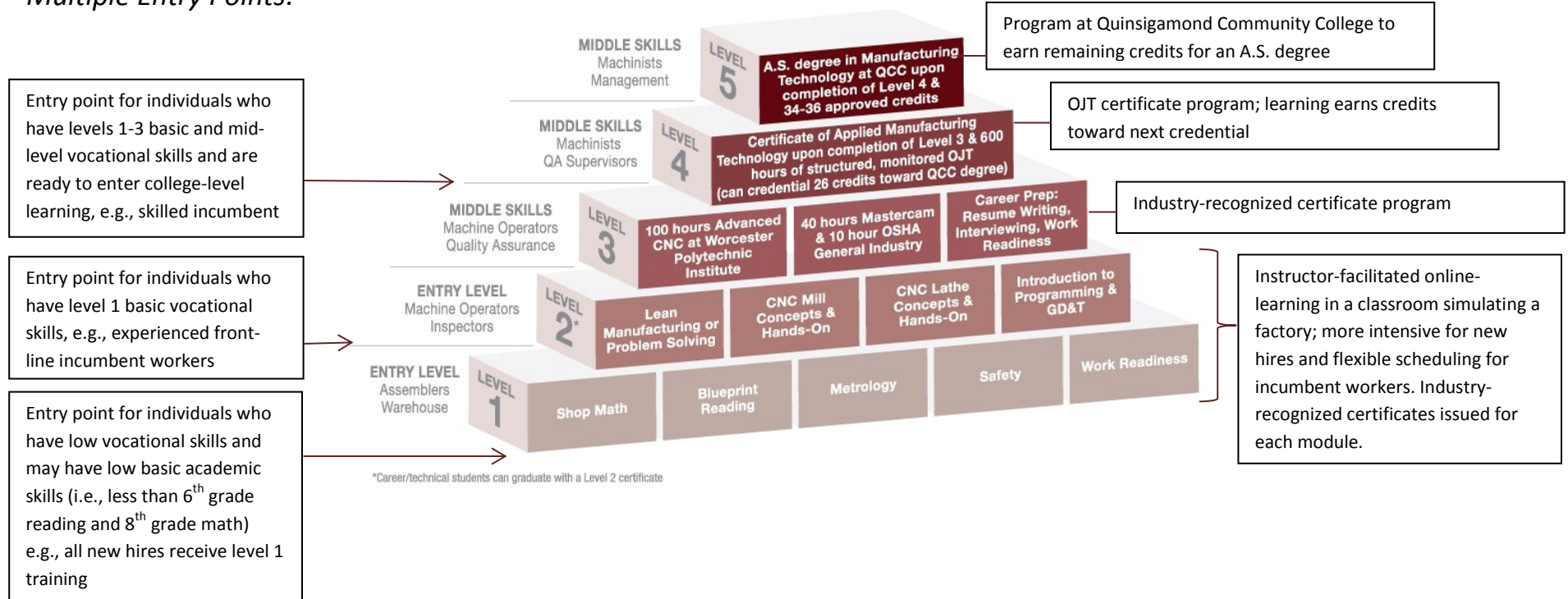
- (1) Well-connected education and training offerings
- (2) Multiple entry points that accommodate participants entering at different education and skill levels (including career pathway “bridge” programs to help those with limited education, English, skills, and work experiences)
- (3) Multiple exit points at successively higher levels of family-supporting employment and aligned with subsequent educational entry points

Each career pathway enables a participant – no matter his or her entry point – to earn marketable credentials and access employment at or above family-supporting wages.

Figure 1: Applied Manufacturing Technology Certification Pathway

Well-connected education and training offerings and multiple credentialed exit points:

Multiple Entry Points:



Question: At the entry level, should there be a “bridge” program to provide an “on-ramp” for lower-skilled individuals interested in this occupation? Could the bridge be provided by a partnering organization?

Question: At the top end, what are the next step education programs and credentials?

MACWIC's Career Pathway Programs

Local/regional career pathways often consist of **multiple aligned career pathway programs**, i.e., the education and training offerings on the right in figure 1 above, which blend a set of programmatic elements found in the table below. Career pathway programs are the “building blocks” of career pathways and vary regarding the extent of the education and training and the number of credentials a participant can earn. If the end point of a particular career pathway program does not enable a participant to earn a credential that qualifies him or her for employment at or above family-supporting wages, that program aligns with and connects to a subsequent career pathway program that is designed to meet this goal.

| AQCP Framework: CP Program Elements | MACWIC Examples |
|---|--|
| 1. Participant-focused approaches to instruction and occupational training | Level 1, 2 and 3 modules are completed in an individualized “program” tailored to each worker’s needs. Incumbent workers are self-paced (therefore can be accelerated). New hires usually complete the modules in an intensive, accelerated all-day schedule. Training is instructor-facilitated online in a classroom simulating a factory. Any necessary basic academic skills refreshers are customized to manufacturing and integrated into the training. Level 4 certificate is OJT. Level 5 is primarily on-line to accommodate working learners. |
| 2. Appropriate and meaningful assessment of: <ul style="list-style-type: none"> • Basic academic skills • Work readiness • Supportive service needs • Skills for credential attainment (minimal and non-duplicative assessments) | TABE used by all partners to assess basic academic skills. Work readiness assessment is an in-house tool centrally administered by MACWIC. The Career Center and/or CBO partner assesses for support service needs. Each module in levels 1, 2, and 3 has a post-test for skill level and mastery (competency-based); all employer and educational partners have “signed off” on these tests. At the end of level 3, students must demonstrate that they have mastered all of the competencies in an extensive checklist. All instructors must sign-off. Levels 3 and 4 also are competency-based certificate programs. Level 5 builds from the competency-based programming, adds college credit, and results in an Applied Science degree. |
| 3. Supportive services and career navigation assistance (including early and on-going career awareness and exploration and intensive support services as needed) | Supportive services are provided by the Career Center and/or CBO partner and may include career navigation. Also, community colleges have career navigators at all Career Centers who can help dislocated workers navigate into and through community college. Career navigation support is offered informally by MACWIC instructors and woven throughout the certification pathway, e.g., instructors continuously describe how each skill set applies to other skill sets aligned horizontally and vertically. MACWIC offers career coaching, mock interviews, job fairs, resume building, plants tours, etc., on an as-needed basis. |
| 4. Direct connections to employment that include quality work experiences and employment | Incumbent workers and new hires are working – so have a direct connection to work – and can directly apply the training they receive. |



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| services | Job seeker trainees have an intensive supported job search process. MACWIC has a 95% placement rate. |
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MACWIC’s Local/Regional Career Pathway Systems and Partnerships

A local/regional career pathway system is built and maintained by a partnership among local and/or regional agencies, organizations, institutions, and employers/industries that is committed to building, scaling, and sustaining demand-driven career pathways and to key guiding principles of career pathway systems. The system is comprised of specific sector or cross-sector occupational career pathways.

Note: MACWIC is the statewide intermediary that provides the outside infrastructure to support the implementation of the career pathway at the local/regional level.

| AQCP Framework: Criteria for Local/Regional CP Systems | MACWIC Examples |
|--|---|
| 1. Commit to a shared vision and strategy | <p>Vision and Mission</p> <p>The Manufacturing Advancement Center Workforce Innovation Collaborative is a dynamic alliance of next-generation companies that work in a concerted effort to identify workforce-related business needs and to drive solutions.</p> <p>The MACWIC will provide a baseline for strategy development and subsequent action that will enable the alliance to adapt, succeed and profit in an ever-changing business environment.</p> <ul style="list-style-type: none"> • Build a company-led network that is committed to active participation to identify common issues and challenges and seek synergistic solutions • Create a talent pool to meet current and future workforce needs • Develop relevant deployable curriculum in partnership with Workforce Training Service Providers, Technical High Schools, Community Colleges and Universities • Increase availability of technical training resources • Become recognized as the body that initiates and directs effective efforts with local and state government |
| 2. Engage employers | <p>MACWIC employer partners assisted in the development of figure 1 above.</p> <p>Majority vote sanctioned the career pathway.</p> <p>Employer members of the Education Committee update curriculum and programs.</p> <p>Employers provide:</p> <ul style="list-style-type: none"> • release time for training • hiring of career pathway graduates • on-the-job training |
| 3. Provide resources | Manufacturing Advancement Center provides management and administrative infrastructure and |



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|---|--|
| | oversight, financial management, meeting facilitation Arranges training and subsidizes cost. Manufacturing Advancement Center has federal and state grants that help support activities. MassMEP has provided access to project management staff. |
| 4. Implement supportive local/regional policies | Partners have adopted the career pathway in figure 1. QCC provides 26 credits for MACWIC training and OJT. |
| 5. Adopt evidence-based best practices | See examples on page 4. |
| 6. Use data and shared measures | Independent third party survey quantifies impact and provides data for continuous improvement, economic impact to both employers and state is key. MACWIC tracks new hires for 3 quarters. |



MACWIC Members

MACWIC members and partners come from across the Commonwealth of Massachusetts and represent every sub-sector of manufacturing.

MEMBERS

Companies

- A.W. Chesterton Company
- Allied Machine Products Corp.
- Belt Technologies
- Berkshire Manufactured Products
- Capstan Atlantic
- Central Massachusetts Machine
- CSI Manufacturing Inc.
- Curtis Industries
- Custom Machine, Inc.
- Darmann Abrasive Products
- David Clark Company
- Dexter-Russell, Inc.
- FIBA Technologies, Inc.
- Gentex Optics, Inc.
- H.T. Machine Co.
- Incom, Inc.
- Lampin Corp.
- Lincoln Tool & Machine Corp.
- Lutco Inc.
- Manpower NA
- Mayfield Plastics
- Microfabb
- NyproMold, Inc.
- Phillips Precision, Inc.
- Prematech Advanced Ceramics
- Reed Machinery, Inc.
- Saint-Gobain Abrasives
- Saint-Gobain Ceramic Refractories
- Siemens Corporation

PARTNERS

Founding Partners

- Manufacturing Advancement Center
- Massachusetts Manufacturing Extension Partnership
- Associated Industries of Massachusetts

Labor and Workforce Development

- Massachusetts Executive Office of Labor and Workforce Development
- Commonwealth Corporation
- Workforce Investment Boards, Regional Investment Boards
- One-Stop Career Centers
- Massachusetts Department of Veterans' Services
- Massachusetts Division of Apprentice Training

Economic Development

- Massachusetts Executive Office of Housing and Economic Development
- Massachusetts Office of Business Development
- Massachusetts Clean Energy Center
- Mass. Growth Capital Corp.
- Small Business Development Centers
- U.S Small Business Administration

Education

- Massachusetts Executive Office of Elementary and Secondary Education
- Massachusetts Vocational-Technical High Schools
- Massachusetts Community Colleges
- Massachusetts 4-year Colleges



- Simonds International
- Slideways, Inc.
- Symmons Industries, Inc.
- The Entwistle Co.
- TRU Corporation
- United Lens Co., Inc.
- Vulcan Industries, Inc.
- Waters Corporation
- Wirefab Inc.

Educators/Others

- APICS, Worcester Chapter
- Assabet Valley Regional Technical High School
- Berkshire Community College
- Blackstone Valley Regional Vocational Technical High School
- Bristol-Plymouth Regional Technical School
- Center for Manufacturing Technology
- Diman Regional Vocational Technical High School
- Fitchburg State University
- InDepth Design
- Leominster Center for Technical Education
- Management Excellence Action Coalition
- North Shore Technical High School
- Notre Dame Education Center
- Partnerships for a Skilled Workforce
- Quinsigamond Community College
- Shawsheen Technical Institute
- Shawsheen Valley Regional Technical High School
- Society of Manufacturing Engineers
- Strategic Operational Solutions, Inc.
- Taconic High School
- Wentworth Institute of Technology
- Worcester Polytechnic Institute
- Worcester Technical High School

Industry Associations

- National Institute of Standards and Technology
- Society of Manufacturing Engineers
- Association for Manufacturing Excellence
- Association for Manufacturing Technology
- Small Business Association of New England
- National Innovation Marketplace
- UMASS Innovation Institute
- Corporate Value Metrics
- Western Mass. National Tooling and Machining Association
- Boston National Tooling and Machining Association
- Precision Machined Products Association

