Stackable Certificates and Industry Engagement – Tutorial

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Session Agenda



- Foundational Concepts for "Stackability"
 - Understanding the Labor Market via the Career Pathways Concept
 - Defining your local labor market and stakeholders
 - Students and Industry
 - Brief Review of Industry Engagement Practices
 - Understanding the impact of skills on employment
- Importance of Skills for Stackable Certificates
- Building a Practical Framework for Creating Stackable Certificates
 - Using a Curriculum Continuum for Designing Stackable Pathways
 - Modularizing Curriculum
 - Importance of Visualization
- Examples of Stackable Certificates
- Closing Thoughts



Foundational Concepts for "Stackability"





- Industry Clusters
- Career Pathways
- Laborshed
- The "Voice of Industry"
- Skills & Skill Clusters

The Postsecondary Alignment of Programs of Study and Adult Career Pathways





Adapted from Gardner Clagett, M. (2015). Advancing Career and Technical Education (CTE) in State and Local Career Pathways Project: Final Report. <u>http://s3.amazonaws.com/PCRN/docs/AdvCTEFinalReport012816.pdf</u>

Pathways to Career Readiness and Advancement

Programs of Study and **Career Pathways** share many of the same attributes. The two terms are used interchangeably in many state and local applications. Both are defined in Federal Law.

A **CAREER PATHWAY** is a combination of rigorous, high-quality education, training, and other services. Attributes:

- Industry alignment
- Secondary and postsecondary credential attainment
- Enables entry and advancement in specific occupations or occupational clusters
- Education in the same context as workforce preparation
- Acceleration of educational and career advancement
- Preparation for success in secondary/ postsecondary education options and apprenticeships
- Counseling services

CAREER EXPLORATION

Begins no later than 8th grade and is an integral part of instruction for:

- Career and Technical Education (CTE)
- Integrated Education and Training (IET)
- Adult Basic Education (ABE)
- Adult Secondary Education (ASE)
- English as a Second Language (ESL)



A **PROGRAM OF STUDY (POS)** is a coordinated, nonduplicative sequence of academic and technical content at the secondary and postsecondary level.

Attributes:

- Industry alignment
- Postsecondary credential
- Multiple entry/exit points
- Academic, technical, employability skills
- Challenging standards
- Progressive content specificity
- Career guidance



STACKABLE CREDENTIALS

At these milestones the learner may advance to the next-higher-skill job in the sector for which they have trained, and/or continue in or reenter the learning pathway to pursue additional credentials.

*These stackable credentials may:

- Include preparation for industry certifications.
- Articulate to bachelor's degree programs.
- Be obtainable by HS students through dual credit.



Increase the number of workers with certificates, credentials, and degrees that are aligned to upwardly trending and progressively well-paying careers identified and measured within the local economy.

Sector Partnership



State Sector Strategies Coming of Age

Understanding the Regional Laborshed



Know your audience and study the workforce needs of your local economy with an eye to how they can be addressed through your credit and non-credit programming.

- Becoming clear on what occupations in the local market are aligned to your workforce focused education and training programs.
- Understanding the demand and reason for that demand, with strong employer input, is the first step in being able to launch a data-informed stackable framework.

Directing the ongoing conversations academic and outreach staff are having with employers will provide a deeper understanding on how employers practice compensating their workers at different levels of competency and educational attainment. This is a critical piece of information for creating impactful stackable certificates for students.

Common Middle-Skilled Workforce Clusters





How to Hear the "Voice of Industry"?

Basic workforce surveys with local partners

- Business Journals
- Chambers of Commerce
- Business and Industry Associations
- Municipalities and Local Government Agencies

Program Advisory Boards with Industry Participation

Making sure we have the right stakeholder participation

Special Industry Convenings and Focus Groups

Dedicated Outreach Staff Systematic Approach to Connect with Industry

• Customer Relationship Management (CRM) Software

Big Data Subscriptions for Localized Traditional and Real Time Data



Questions to Guide Industry Engagement



- 1. What is the annual demand for occupations aligned to college programming?
- 2. What are graduates earning in the <u>local</u> labor market in the first five years, after graduation?
- 3. How well does an occupation(s) or skill clusters provide the graduate:
 - Year over year wage growth
 - Attainment of regional self-sufficiency thresholds
 - Employment retention/occupational stability/workforce persistence
 - Lifetime earnings compared to other CP/Opportunity costs
 - Performance relative to other pathways
- 4. How do non-completers working within the career pathway perform in comparison to graduates that have obtained a credential?
- 5. Is there a viable and validated practice within the career pathway industry for occupational progression?

Datapoints Useful to Understanding the Local Labor Market

- Occupational Demand and Industry Growth (Replacement & New)
- Wages & Time for Wage Progression
- Availability of Employee Benefits
- Occupational Churn and Attrition
- Index to Regional Self-Sufficiency Standards & Metrics
- Occupational Demographics
- Credentials, Competencies and Skills required by employers
- Ability of workers to ladder to next step occupations within the career pathway(s)

LABOR MARKET INFORMATION

Connecting you with workforce data you can use.

LEARN MORE

BETA VERSION 1.0

The Labor Market Information (LMI) provided by the Economic and Workforce Development Center allows educators, workforce practitioners and economic developers to apply occupational-based analyses within specific regions and workforce clusters. Here, you'll find the most recent data available from government sources in clear, easy-to-read reports.

EXPLO	RE WORKFO	RCE CLUS	TERS IN I	NEW YORK.	
EXPLC WORKFORCE CLUSTER	ORE WORKFO	RCE CLUS	rers in I	NEW YORK.	

https://mcclmi.com/





VIEW DATA

WORKFORCE ABOUT RESOURCES DATA SOURCES CON CLUSTERS

Monroe Community College 2003-2017 Graduate Wage Outcomes | New York State



Advanced

Economic & Workforce Development Center

Major Metro Self Sufficiency Standard (SSS):				
✓ \$18/hr 1 adult, 1 child (2010)	\$25/hr 2 adult, 1 child (2010)			

Manufacturing **Monroe CC Students Regional Comparison** Hourly Wage % Change Est. Return on % of Self-Sufficiency % of Self-Sufficiency \$ Increase % of 50th % of 4-Year Degree **50th Percentile** Program at 5th Year at 5th Year Education for Peer Group for 1 Adult & 1 Child for 2 Adults & 1 Child Wage in the Region 5th Year Percentile **ELECTRICAL ENGINEERING** \$23.47 7.2% \$8.04 24.4% \$26.32 89.2% 127.8% 🗸 93.9% 87.6% **TECHNOLOGY** | AAS MECHANICAL ENGINEERING 10.2% 133.2% 🗸 \$24.46 \$10.83 20.8% \$25.90 94.4% 97.8% 91.3% **TECHNOLOGY** | AAS **OPTICAL SYSTEM** \$23.81 11.9% \$10.83 25.5% \$23.34 102% 129.7% 🗸 95.2% 88.9% **TECHNOLOGY** | AAS **TOOLING AND** \$20.55 9.9% 26.7% 105.2% 111.9% 🗸 82.2% 76.7% \$**8.91** \$19.53 MACHINING | AAS

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Industry Engagement Communication Model





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- Identifying the sectors and employers of interest
- Managing these employer accounts in a database (key contact information)
- Logging and tracking outreach efforts & relevant information (e.g., conversations, proposals, talent needs)
- Conducting campaign based engagement (e.g., email marketing, invitations to surveys, grants and advisory board participation)



Importance of Skills for Stackable Certificates



Emergent Trends Involving Skills as a Focus



- 1) Studies point to a hiring dynamic where there is a greater willingness to hire based on skills and competencies independent of traditional higher ed credentials
- 2) Non-traditional providers are developing **alternate credentials** that provide an individual a new way to access **non-degree career pathways**
- New "big data" applications have emerged based on job posting analytics technology that allow for measuring demand for emergent and current skills, skill clusters and other non-credential factors desired by employers – <u>Demand and</u> <u>Supply Side</u>
 - Skills increasingly emerging as a driver for employment that can exist independent of the traditional credential
 - These dynamics point to a new perspective on skills and their impact on both curriculum, advisement career services and employability of graduates

Strada's COVID-19 Work & Education Survey



Strada Center for Consumer Insights Public Viewpoint survey, April 15-Aug. 6. Base: adults ages 18 and older, n=5,272. *Courses for skills training or personal development. **Certificate, certification, or license. The focus for potential students right now is on career relevance, academic quality and flexible programming.



Source: Strada, Inside Higher Ed, Alternative Credentials on the Rise. Aug. 2020



Projected Posting Growth (2018-2023)









Top 10 Skill Clusters | 12 Months

High School / Less Than Associate's, Associate's Degree



Building a Practical Framework for Creating Stackable Certificates



Pathways to Career Readiness and Advancement



Source: Introduction to Stackable Credentials, US Department of Education Office of Career, Technical and Adult Education, 2021



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Modularized Educational Pathway



A Practical Framework for Designing Stackable Certificates Using a **Curriculum Continuum**





- Intro to Mechatronics
- Precision Machining
- HVAC Fundamentals
- Computer Literacy/Office Tech non-credit courses/certificate

\$16.00

One-year academic certificate

- Mechatronics Certificate, credit ٠
- Precision Machining, credit ٠
- HVAC, credit ٠
- Medical Office Assistant, ٠ Academic Certificate

\$18.58

Two-year AAS/AOS degree

- Applied Integrated Tech, AAS
- Precision Machining, AAS
- HVAC, AAS
- Office Tech AAS

\$20.16

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Examples of Stackable Certificates



Modularized Educational Pathway



Career Pathway Visualization



+ SKILL SET -

Created

Micro-credentials:

CASAC, Psych



© Monroe Community College, Source: https://user-tyBGWup.cld.bz/Working-Draft-1-0-Health-Care-Career-Pathwav-Analysis



Incorporating stackable programming into the overall catalog of academic and noncredit programming provides the learner with more on- and off-ramps along an associate's degree pathway.

Ultimately the stackable framework of programming broadens the value that a workforce focused program or community college can provide its community and serves as another tool that supports the workforce and economic development mission of the institution.



Resources



Select References



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