Understanding, Defining, and Building Career Pathway Systems

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ILLINOIS COMMUNITY COLLEGE BOARD

11/16/16
Agenda

I. Understanding Career Pathways
II. Defining Career Pathways
III. Elements of a Career Pathway System
IV. Building a Career Pathways System
V. Organizing for Career Pathways
VI. Career Pathway Programs
VII. Sample Program Components
VIII. Real World Examples
IX. Measuring Career Pathways
Understanding Career Pathways

Career Pathways ARE about continuously improving the connection between education, the economy and workforce systems based upon decades worth of experience and grounded in a tradition of strong CTE, support systems and workforce systems.
Understanding Career Pathways

Career Pathways is **NOT** a panacea for all education, economic and workforce problems.
Understanding Career Pathways

“A theory that explains everything, explains nothing”

― Karl R. Popper

It is important to understand what we mean by career pathways
Defining Career Pathways
Joint Letter from HHS, USDOE and USDOL (4/12/2012)

Career pathways are:

- A series of connected education and training strategies and support services that enable individuals to secure industry-relevant certification and obtain employment within an occupational area and to advance to higher levels of future education and employment in that area.” (Dann-Messier, Oates, and Sheldon, 2012).
Defining Career Pathways
Workforce Innovation and Opportunities Act (WIOA)

CAREER PATHWAY.—The term “career pathway” means a combination of rigorous and high-quality education, training, and other services that—

A. **aligns with the skill needs of industries** in the economy of the State or regional economy involved;

B. **prepares an individual to be successful** in any of a full range of secondary or postsecondary education options, including apprenticeships registered under the Act of August 16, 1937 (commonly known as the “National Apprenticeship Act”; 50 Stat. 664, chapter 663; 29 U.S.C. 50 et seq.) (referred to individually in this Act as an “apprenticeship”, except in section 171);

C. **includes counseling** to support an individual in achieving the individual’s education and career goals;

D. includes, as appropriate, **education offered concurrently with and in the same context as workforce preparation activities** and training for a specific occupation or occupational cluster;

E. **organizes education, training, and other services to meet the particular needs of an individual in a manner that accelerates** the educational and career advancement of the individual to the extent practicable;

F. enables an individual to **attain a secondary school diploma or its recognized equivalent**, and at least **one recognized postsecondary credential**; and

G. **helps an individual enter or advance** within a specific occupation or occupational cluster.
USDOL 6 Key Elements of a Career Pathway System

1. Build Cross-Agency Partnerships & Clarify Roles
   - Key cross-agency partners at the local and state levels are engaged to participate in the initiative. Roles and responsibilities are clearly defined and formalized.

2. Identify Sector or Industry and Engage Employers
   - Sectors and industries are selected, gap analysis is conducted, and employers are engaged in the development of career pathways.

3. Design Programs
   - Career pathway programs provide a clear sequence of education courses and credentials that meet the skill needs of high-demand industries.

4. Identify Funding Needs & Sources
   - Necessary resources are raised and/or leveraged to develop and implement career pathway programs.

5. Align Policies & Programs
   - Federal, state, and local legislation or administrative policies promote career pathway development and implementation.

6. Measure System Change & Performance
   - Measures are used to assess and determine system change and performance including policy changes for system-wide change.

Six Key Elements of Career Pathways
Career Pathways Initiative

Developed by the US Department of Labor – Employment and Training Administration, May 2013
Elements of a Career Pathway System

Alliance for Quality Career Pathways

1. Commit to a Shared Vision and Strategy
2. Engage Employers and Integrate Sector Strategy Principles
3. Collaborate to Make Resources Available
4. Implement Supportive Local / Regional Policies
5. Use Data and Shared Measures
6. Implement and Integrate Evidence-Based Best Practices and Processes
## Elements of Career Pathway Systems (DOL, HHS, DOE)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aligned</strong></td>
<td>✓ Secondary, Postsecondary, Workforce Systems including Adult Education</td>
</tr>
<tr>
<td><strong>Connected</strong></td>
<td>✓ Rigorous, sequential, connected, and efficient coursework that links basic education and skills training and integrates education and training</td>
</tr>
<tr>
<td><strong>Flexible</strong></td>
<td>✓ Multiple entry and exit points</td>
</tr>
<tr>
<td><strong>Supportive</strong></td>
<td>✓ Comprehensive support services, such as career counseling, childcare, and transportation</td>
</tr>
<tr>
<td></td>
<td>✓ Financial supports or flexibility to accommodate labor market demands in order to allow individuals to meet their ongoing financial needs and obligations</td>
</tr>
<tr>
<td><strong>Engaged with Business</strong></td>
<td>✓ Active engagement of business in targeted industry sectors that are important to local, regional, and/or state economies</td>
</tr>
<tr>
<td><strong>Contextualized</strong></td>
<td>✓ Curriculum and instructional strategies that make work a central context for learning and developing work readiness skills (i.e., contextualized learning)</td>
</tr>
<tr>
<td><strong>Accelerated</strong></td>
<td>✓ Implementation of strategies that accelerate the educational and career advancement of participants (e.g., credit for prior learning)</td>
</tr>
<tr>
<td><strong>Accommodating</strong></td>
<td>✓ Organized services to meet the particular needs of adults (e.g., accommodating work schedules)</td>
</tr>
<tr>
<td><strong>Sector-focused</strong></td>
<td>✓ A focus on secondary and postsecondary industry-recognized credentials, sector-specific employment, and advancement over time in education and employment within that sector</td>
</tr>
<tr>
<td><strong>Collaborative</strong></td>
<td>✓ A collaborative partnership among workforce, education, human service agencies, business, and other community stakeholders to manage the system</td>
</tr>
</tbody>
</table>

Steps to Building a Career Pathway System

Gap Analysis

Career Pathways Planning

Implementation

Continuous Improvement

Expanding Pathways

Gap Analysis

Target industries and jobs that will support individual advancement and regional growth

Analyze labor demand and identify industries → Asses the strengths and weaknesses of existing education and workforce development services.

Identify gaps where needs are currently unmet. → Consider the return on potential public investments.

Form a partnership to develop a career pathways plan

- Organize Partners
- Involve Employers
- Rethink programs and services
- Identify costs, and figure out how to pay for it
- Develop communications plan to build support

Coordinate the work of the partners

Continuous Improvement

Evaluate and continuously improve career pathways programs and services

- Conduct regular in-process reviews of program performance.
- Track the employment and further education outcomes of participants at each level.
- Make adjustments based on evidence of program effectiveness and impacts.
- Regularly reevaluate the mission, vision and goals.

Expanding Pathways

Expand the pathways process to involve other partners, populations of participants and sectors

WIOA Planning Framework

Overall Vision: Illinois Workforce, Education, Economic Development State Leadership Team

"Business driven talent solutions that integrate education, workforce and economic development resources across systems to provide businesses, individuals, and communities with the opportunity to prosper and contribute to growing the state's economy."

Guiding Principles: State Plan & Regional Plans

- Business Demand/Data Driven Orientation
- Strong Partnerships with Business at All Levels
- Career Pathways to Jobs of Today and Tomorrow
- Cross-agency Collaboration & Alignment
- Integrated Service Delivery
- Access and Opportunity for all Populations
- Clear Metrics for Progress and Success
- Focus on Continuous Improvement and Innovation

Planning Activities

- Meetings facilitated by Maher & Maher Team
- State Data Team Data gathering & analysis provided to regional teams
- Regional self-assessment to determine current levels of inter-agency, inter-program collaboration
- Action oriented implementation steps
- Local Plan - Identify specific activities and resources to support implementation of regional plans as well as discuss the mechanics for integrated and coordinated delivery of services.

State Plan
III. Self-Assessment Questions

For each of the factors in the sections that follow, please select a rating from 1 ("haven’t started yet") to 5 ("advanced") that reflects your perspective on where your region stands in relation to the factor [1-5 scale with accompanying descriptions will be provided].

Factors to Consider:

| STRATEGY #1: Align and integrate economic development, workforce development, and education at the state and regional levels to improve the economic growth and competitiveness of Illinois businesses and their workforce. |
|---|---|---|---|---|---|
| a. Economic development, workforce development, education, and other partners have jointly reviewed available data and validated that data with businesses to identify shared target industries for strategic focus in our region. | ![Rating](1) ![Rating](2) ![Rating](3) ![Rating](4) ![Rating](5) |
| b. At the service delivery level, partners in our region have organized on a unified, region-wide business services team to coordinate outreach to and support for companies in our region. | ![Rating](1) ![Rating](2) ![Rating](3) ![Rating](4) ![Rating](5) |
| c. We actively, intentionally, systematically, and regularly collaborate across agency, program, and funding stream “silos” to align our goals, strategic efforts, investments, and service delivery activities to meet shared targets for our business and job seeker/worker customers in our target sectors. | ![Rating](1) ![Rating](2) ![Rating](3) ![Rating](4) ![Rating](5) |
## Gap Analysis Findings Example

<table>
<thead>
<tr>
<th>Current Implications</th>
<th>Future Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>[redacted] has been focusing on providing more work-based learning opportunities for customers (On-the-Job Training, Work Experience for youth and adults, Incumbent Worker Training)</td>
<td>Different recruitment strategies will need to be developed due to the 75% out-of-school mandate and decreased youth population</td>
</tr>
<tr>
<td>[redacted] is continuing to focus on employment opportunities including OJT, Work Experience, and training for adults and youth</td>
<td>[redacted] will count less GED and Adult Ed hours and will require more work-based activity</td>
</tr>
<tr>
<td>[redacted] has developed bridge manufacturing and healthcare programs, including transition and job skills in the classroom or to the workforce</td>
<td>[redacted] is expanding recruitment efforts, career awareness, and transitioning activities within classroom</td>
</tr>
<tr>
<td>[redacted] offers a dual credit Health Careers program to recruit high school students in the health sciences career pathway</td>
<td>[redacted] will refer former incarcerated individuals for OJT</td>
</tr>
</tbody>
</table>
Data Analysis Example
Organizing for Career Pathways
Organizing for Career Pathways

The Backbone Organization

- Partnerships
- Career Pathway Backbone
- Sustainability
- Business Engagement
- Continuous Improvement
Career Pathway Programs

The Alliance for Quality Career Pathways

Three features of a quality career pathway:

1. Well-connected and transparent education, training, support services, and credentials within specific sector or cross-sector occupations (often delivered via multiple linked and aligned programs).

2. Multiple entry points that enable well-prepared students, as well as targeted populations with limited education, skills, English and work experiences, to successfully enter the career pathway. Targeted populations served by career pathways may include adult education or other low-skilled adult students, English Language learners, offenders or ex-offenders, high school students, disconnected or “opportunity” youth, some former military personnel, un- or under-employed adults, or others.

3. Multiple exit points at successively higher levels that lead to self- or family-supporting employment and are aligned with subsequent entry points.
Career Pathway Programs

The Alliance for Quality Career Pathways

The 4 Essential Functions of a Quality Career Pathway

1. Participant-focused education and training;
2. Consistent and non-duplicative assessments of participants’ education, skills, and assets/ needs;
3. Support services and career navigation assistance to facilitate transitions, and; and,
4. Employment services and work experiences.
Sample Program Components: Work-Based Learning

Focus on Education, Foundational Discipline/Soft-Skills, Learn by Doing

All pathways participants engage in a personalized and coordinated continuum of work-based learning (WBL) experiences designed to help them master and demonstrate academic, technical, and foundational professional skills.
Sample Program Components: Career-Focused Instruction

Focus on Education and Foundational Disciplines/Soft-Skills

The career-focused instructional sequence relates to real-life situations and experiences, focuses on the application of learning, and integrates academic and technical content with foundational professional skills.
Sample Program Components: Progressive Design

Focus on Education and Learn by Doing

Pathways enable participants to gain entry to or advance within a given career cluster, facilitate efficient transitions to non-duplicative continuing education, and incorporate stackable and portable industry-recognized credentials.
Sample Program Components: Participant Supports

Pathways participants are provided supports to ensure their successful selection and navigation of the pathway and entry into the career field.
Sample Career Pathway Program Components

<table>
<thead>
<tr>
<th>Adult Education and English as a Second Language</th>
<th>High School</th>
<th>Offender and Ex-Offenders</th>
<th>Returning Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bridge Programs</td>
<td>• Dual Credit</td>
<td>• Re-entry Counseling</td>
<td>• Math Refreshers</td>
</tr>
<tr>
<td>• Integrated Education and Training (IET) Opportunities</td>
<td>• Early College Credit</td>
<td>• Transition to re-entry initiatives</td>
<td>• Placement Testing</td>
</tr>
<tr>
<td>• Stackable credentials</td>
<td>• Co-requisite remediation</td>
<td>• Tutoring services such as Peer Tutoring</td>
<td>• Career Counseling</td>
</tr>
<tr>
<td>• Integrated literacy and civics education</td>
<td>• Youth apprenticeship</td>
<td>• Child-care services</td>
<td>• Financial Aid Counseling</td>
</tr>
<tr>
<td></td>
<td>• Pre-Apprenticeship</td>
<td>• Secondary school credit</td>
<td></td>
</tr>
</tbody>
</table>
Examples: Stackable Credentials

- Basic Certificate (12 hours)
- Advanced Certificate (30 hours)
- Associate of Science Degree

Maximize Industry Credentials
Advanced Manufacturing Technology AAS

Step 1: Manufacturing Production Certificate (full time = 1 semester; part-time = 1 year)

This 16-hour certificate is designed to build the core competencies of manufacturing production to prepare students for internships and entry level positions in manufacturing. MFT102, MFT104, MFT108, and MFT109 prepare the student for an industry recognized certification assessment. Students who successfully pass all four assessments will be recognized as Certified Production Technicians by the Manufacturing Skill Standards Council (MSSC).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFT 102</td>
<td>Intro to Manufacturing &amp; Safety (MSSC)</td>
<td>4</td>
</tr>
<tr>
<td>MFT 104</td>
<td>Quality and Measurement (MSSC)</td>
<td>2</td>
</tr>
<tr>
<td>MFT 108</td>
<td>Manufacturing Processes (MSSC)</td>
<td>3</td>
</tr>
<tr>
<td>MFT 109</td>
<td>Intro to Manufacturing Maintenance (MSSC)</td>
<td>2</td>
</tr>
<tr>
<td>MTH 097</td>
<td>Tech Math</td>
<td>3</td>
</tr>
<tr>
<td>MFT 119</td>
<td>Manufacturing Internship</td>
<td>2</td>
</tr>
<tr>
<td>MFT 105</td>
<td>10-hour certificate</td>
<td></td>
</tr>
<tr>
<td>MFT 123</td>
<td>15-hour certificate</td>
<td></td>
</tr>
<tr>
<td>MFT 125</td>
<td>11-hour additional hours</td>
<td></td>
</tr>
<tr>
<td>MNT 111</td>
<td>16-hour certificate</td>
<td></td>
</tr>
</tbody>
</table>

Step 2: Select a field of specialization

- **Mechatronics/Automation**
  - Electrical Maintenance Certificate
    - ELT110 Intro Electronics 4
    - ELT142 Electrical Wiring 2
    - ELT215 Industrial Controls 4
  - Industrial Electronics Certificate
    - ELT120 Intro Ind Elec Maint 2
    - ELT140 PLCs 2
    - ELT143 Advanced Electrical 2
  - Mechatronics/Automation Cert
    - ELT135 Optics & Sensors 2
    - ELT144 AC & DC Motors 2
    - ELT145 Variable Freq Drive 2
    - ELT161 Industrial Controls 4

- **Precision Machining**
  - Computer Numerical Control Oper I
    - MFT105 Machine Processes I 4
    - MFT123 Intro CNC Machining 3
    - MFT125 Turning – Conv to CNC 3
    - MFT120 Machine Processes II 3
    - MNT111 Prints & Schematics 2
  - Computer Numeric Control Oper II
    - MFT128 Milling - Conv to CNC 3
    - MFT130 Machining Blueprints 1
    - MFT201 Advanced CNC 5
    - MFT265 Properties of Materials 2

- **Metal Fabrication**
  - Basic Welding Certificate
    - MNT111 Prints & Schematics 2
    - WLD110 Welding I 3
    - WLD210 Welding II 3
    - WLD211 Welding III 4
    - WLD212 Welding IV 4
  - Welding Fabrication Certificate
    - WLD 225 Welding Blueprints 2
    - WLD240 Cutting Processes 3
    - WLD245 Fabrication I 4
    - WLD250 Fabrication II 4

- **Supply Chain Management/Logistics**
  - Inventory/Production Control
    - SCM 101 Supply Chain Mgt 3
    - SCM 120 Production Control 3
    - SCM 122 Inventory Control 3
    - SCM 226 Material Requirements Planning 3
  - Purchasing Certificate
    - SCM 125 Purchasing 3
    - SCM 259 Advanced Purchasing 3
  - Physical Distribution Certificate
    - SCM 121 Physical Distribution 3
    - SCM 227 Just-in-Time/Lean 3

Step 3: Obtain an internship related to field of specialization. Work 16 hours per week while continuing coursework.

Step 4: Complete two or three certificates in the specialization field.

Step 5: Complete AAS Degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENG103 or SPE101</td>
<td>Science, Humanities, Soc Sci 9</td>
<td></td>
</tr>
<tr>
<td>Approved Tech Electives</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Step 6: Advance to a 4-year institution to pursue a baccalaureate degree.
Creating Pathways for Adult Learners

Student

College

Foundation Level
Intermediate Level

Integrated Models
Secondary Completion

Bridge I
Bridge II

Careers

21st Century: Adult Education & Career Training System

Training
Triton College

Certified Medical Assistant ICAPS

Completion/CMA Program

* CMA 200 Medical Assistant Practicum (1)
* CMA 250 CMA Seminar (3)

* CMA 180 Medical Assst Lab App (3)
* CMA 130 Medical Assst Clinical App II (3)

* AHL 107 IV Venipuncture (1)
* AHL 108 Electrocardiography (1)
* CMA 103 Medical Assst Ad App II (3)
* CMA 110 Medical Assst Clinical App I (3)

* AHL 103 Basic Pharmacology (1)
* CMA 101 Intro to Medical Assst (1)
* CMA 102 Med Assst Admin App I (3)

Pre-CMA/Admission to CMA Program

* BIS 190 Anatomy & Physiology (3)
* AHL 110 Medical Coding & Office Procedures (2)

* AHL 120 Comprehensive Medical Terminology (3)

TABE

**TABE Placement Results**

- **TABE 11.0-12.9**: GED E50 Skills and Strategies for Ad to Succeed in College
  - GED Test/ACCUPLACER
  - Practice GED Test
  - TABE

- **TABE 9.0-10.0**: GED E71 & 72 (Parts 1 & 2) Medical Terminology
  - GED Math

- **TABE 6.0-8.9**: GED E69 Healthcare Bridge or GED E55 Admin Support
  - GED Math
  - GED E70 Tech Skills for Workforce and Postsecondary

- **TABE 4.0-5.9**: EDU E47 Career Exploration and Workforce Preparation
  - GED Math
  - EDU Basic Technology Course

* ARL 102 Ethics & Law for Allied Health Professionals (1)
Career Pathway Metrics: The Alliance for Quality Career Pathways

Center for Postsecondary and Economic Success at the Center for Law and Social Policy and the Alliance for Quality Career Pathways. (2013, February).
Career Pathway Metrics: The Alliance for Quality Career Pathways

- **Criteria** for defining high-quality systems and programs;
- **Quality indicators** for all criteria that signal how well the systems and programs are functioning to support the achievement of desired participant outcomes;
- **Interim participant outcome metrics** that indicate progress toward achieving desired longer-term outcomes; and
- **Performance outcome metrics** that are shared across education, training, employment, and other public, private, and philanthropic systems involved in the career pathway system (e.g. Shared measures in WIOA Title I and Title II)

Center for Postsecondary and Economic Success at the Center for Law and Social Policy and the Alliance for Quality Career Pathways. (2013, February).
Sample Metrics based upon ACQP

- **Sample Criterion:** A clear referral method and procedures has been adopted for referrals to services (Center, et al., 2013).

- **Sample Quality Indicator:** Staff are knowledgeable about referral policies and use them to refer clients/students appropriately (Center, et al., 2013).

- **Sample Interim participant outcome metrics:** Data analysis suggests students who are referred to appropriate services fare better than students who do not receive referrals, despite eligibility.

  - **WIOA Outcome Measure:** Attainment of a Degree or Certificate (Youth Measure)  
    Entered Employment (Adult Measure)

Center for Postsecondary and Economic Success at the Center for Law and Social Policy and the Alliance for Quality Career Pathways. (2013, February).
Questions?

For Questions about this power point contact:

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www.iccb.org
References


