# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>3</td>
</tr>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>10</td>
</tr>
<tr>
<td><strong>Element One:</strong> Build Cross-Agency Partnerships and Clarify Roles</td>
<td>11</td>
</tr>
<tr>
<td><strong>Element Two:</strong> Identify Industry Sectors and Engage Employers</td>
<td>26</td>
</tr>
<tr>
<td><strong>Element Three:</strong> Design Education and Training Programs</td>
<td>40</td>
</tr>
<tr>
<td><strong>Element Four:</strong> Identify Funding Needs and Sources</td>
<td>70</td>
</tr>
<tr>
<td><strong>Element Five:</strong> Align Policies and Programs</td>
<td>79</td>
</tr>
<tr>
<td><strong>Element Six:</strong> Measure System Change and Performance</td>
<td>89</td>
</tr>
<tr>
<td><strong>SECTION TWO:</strong> Career Pathways Tools and Resources</td>
<td></td>
</tr>
<tr>
<td>Career Pathways Tools</td>
<td>101</td>
</tr>
<tr>
<td>Career Pathways Resources</td>
<td>117</td>
</tr>
<tr>
<td><strong>SECTION THREE:</strong> Career Pathways References</td>
<td></td>
</tr>
<tr>
<td>Career Pathways Glossary</td>
<td>133</td>
</tr>
<tr>
<td>Bibliography</td>
<td>143</td>
</tr>
</tbody>
</table>
Preface

ABOUT THE CAREER PATHWAYS TOOLKIT

The primary audience for this Toolkit is staff who work at the state level representing one of the core partners required to develop a Workforce Innovation and Opportunity Act (WIOA) Unified Plan. The core partners include the State Workforce Agency, the State Adult Education Agency, and the State Vocational Rehabilitation Agency overseeing Title I, II, III, and IV of WIOA. In addition to the core partners, there are other important partners engaged in this work that may be included so that the state can develop a more comprehensive combined plan. The additional partners are listed in Element One of this Toolkit. State agencies that have oversight over WIOA core partners as well as other critical agencies may wish to participate on the State’s career pathways leadership team.

In addition, given the increased role of the State Workforce Development Board in the development of an overall strategy for career pathways, state workforce staff may find this Toolkit useful in supporting the work of the State Board. Under WIOA, State Boards are responsible for aligning core partners and developing and improving the workforce system through the creation of career pathways. As such, they are responsible for convening stakeholders and core partners to contribute to the development of the state plan. The policies and strategies of the state leadership team regarding career pathways must be consistent with the Unified/Combined State Plan required in WIOA. Local areas implementing career pathways may also find this Toolkit useful.

This revised Toolkit continues the spirit of the original Career Pathways Toolkit: to provide the workforce system with a framework, resources, and tools for states and local partners to develop, implement, and sustain career pathways systems and programs. This revised Toolkit acknowledges many of the U.S. Department of Labor’s (USDOL) strategic investments to create and sustain a demand-driven employment and training system as part of a larger national effort. It incorporates the Career One-Stop competency model as a building block for creating career pathway programs and references the Career One-Stop credentials Toolkit as an easy way to search existing industry-recognized credentials. This version also maintains the original framework but reflects substantial gains in knowledge and experience as well as reflects the system’s new guiding legislation, WIOA.

In addition to this Toolkit, the Department plans to release a companion workbook that includes additional tools and resources to assist states and local partners in the work of developing, implementing, and sustaining career pathways systems and programs, sector strategies, and Registered Apprenticeship.

Lastly, there are additional Federal resources that will be assets to state staff developing a unified state approach to career pathways. The Employment and Training Administration (ETA) is releasing two Toolkits this year, both of which will have relevance for the audience of this Toolkit. These new Toolkits focus on sector strategies and Registered Apprenticeship and will help states with the work of aligning these important required aspects of WIOA.
Section One: Six Key Elements of Career Pathways

This Toolkit features Six Key Elements of Career Pathways that help to guide state and local teams through the essential components necessary for developing a comprehensive career pathways system. The components under each element are not sequential and may occur in any order. Likewise, multiple partners can engage in the components simultaneously to carry out the mission of the career pathways system. The first section of this Toolkit provides an overview of these elements and the overall framework for their implementation. The six elements are:

1. Build cross-agency partnerships and clarify roles
2. Identify industry sectors and engage employers
3. Design education and training programs
4. Identify funding needs and sources
5. Align policies and programs
6. Measure system change and performance

Included in this overview are examples of “Promising Practices” from many communities throughout the nation that help contextualize the Six Key Elements and demonstrate how different communities have implemented key components of career pathways systems. Additionally, each section includes “Career Pathways FYIs” highlighting useful information about career pathways and “How Tos” to guide your team in carrying out activities within each element. At the end of each chapter is a “Tool Box” that lists team tools, publications, and resources available to facilitate implementation of the key components of each element.

Section Two: Team Tools/How To Guide for Facilitators

The second section of the Toolkit presents the tools developed to assist leadership teams in building and sustaining their career pathways systems. USDOL’s Career Pathways Initiative grantees between 2010 and 2011 developed the tools to support their career pathways systems. The updates to the tools section are the result of a group of Champions who operate programs at the state and/or local level and provided examples of useful tools to their operations. Organized as a “how to” guide for facilitators, this section describes each tool’s purpose and gives instructions for how to use it. You may download each tool via links in the text.

Section Three: Resources

The final section of the Toolkit is a collection of additional resources that may be useful to a team in developing a career pathway system. This section includes a glossary of terms, a list of resources and links that facilitators and leadership teams have found valuable in supporting their career pathways systems development, and a bibliography of sources referenced and reviewed in the development of the Toolkit.
Introduction

Our Nation’s future is dependent upon an educated, skilled workforce. Improving the skills, knowledge, and credentials of American workers is critical to economic stability, growth, and global competitiveness. The Organization for Economic Co-Operation and Development’s (OECD) Survey of Adult Skills, released in October 2013, confirmed what employers have often noted: far too many adults lack the skills or credentials required for in-demand jobs. The OECD’s analysis of the U.S. data, available in the report, Time for the U.S. to Reskill 1, found that 36 million U.S. adults have low skills, two-thirds of which are employed. By many accounts, the economic environment is ripe for employment expansion, yet employers continue to have difficulty finding the skilled workers. Of those Americans who lack the skills required for in-demand occupations, many do not know how or where to access the information, training, and credentials needed for these family supporting jobs.

WIOA, signed into law on July 22, 2014, provides an extraordinary opportunity to improve job and career options for our Nation’s workers and job seekers through an integrated, job-driven, public workforce system that links diverse talent to businesses. It supports the development of strong, vibrant regional economies where businesses thrive and people want to live and work. This revitalized workforce system includes three critical hallmarks of excellence:

- The needs of business and workers drive workforce solutions;
- American Job Centers provide excellent customer service to jobseekers and employers and focus on continuous improvement; and
- The workforce system supports strong regional economies and plays an active role in community and workforce development.

In addition, WIOA requires states and localities to collaborate with adult education, postsecondary education, and other partners—to establish career pathways systems that make it easier for all Americans to attain the skills and credentials needed for jobs in their regional economy.

Also on July 22, 2014, Vice President Biden issued the Ready to Work: Job-Driven Training and American Opportunity report that lays out a vision for measuring the effectiveness of job-training programs and announcing an array of actions to achieve the skilling of America’s workforce. The Ready to Work Report outlines strategies and program components that have shown promise in helping individuals persist in education and training and to attain credentials necessary for obtaining in-demand jobs.

The message from the new law and the job-driven vision is clear—the workforce, human service, and educational systems must be in alignment through cross-agency planning, share common performance measures that inform data-driven decision making, and develop strategies for sector partnerships and career pathway systems and programs at the Federal, state, and local levels.

Career Pathway Systems and Programs

What are career pathways? Career pathways are the new way of doing business, and they operate at two levels—a systems level and an individual program level. At the systems level, career pathways development is a broad approach for serving populations that may experience significant barriers to employment and can substantively alter the way the workforce system delivers its services and its relationship with partner organizations and stakeholders. Career pathway programs offer a clear sequence, or pathway, of education coursework and/or training credentials aligned with employer-validated work readiness standards and competencies. This Toolkit predominantly focuses on building career pathway systems although there are also some tools included that support career pathways program development.

Career pathway systems offer an effective approach to the development of a skilled workforce by increasing the number of workers in the U.S. who gain industry-recognized and academic credentials necessary to work in jobs that are in-demand. To align educational offerings with business needs, career pathways systems engage business in the development of educational programs up front. Career pathways systems transform the role of employers from a customer to a partner and a co-leader and co-investor in the development of the workforce. Employers have a high stake in the development of career pathways that lead to an increase in their pipeline of qualified workers. Additionally, career pathways systems offer a more efficient and customer-centered approach to workforce development because they structure intentional connections among employers, adult basic education, support service providers, occupational training, and postsecondary education programs and design the systems to meet the needs of learners and employers.

Career pathway programs make it easier for people to earn industry-recognized credentials through avenues that are more relevant; to provide opportunities for more flexible education and training; and to attain market identifiable skills that can transfer into work. These comprehensive education and training programs are suited to meet the needs of working learners and non-traditional students. Career pathways programs are designed to serve a diverse group of learners to include; adults, youth, dislocated workers, veterans, individuals with a disability, public assistance recipients, new immigrants, English language learners, and justice-involved individuals. Up until now, career pathways systems and programs have been defined in multiple ways. WIOA now codifies the essential elements of career pathways into law.
INTRODUCTION
CAREER PATHWAYS TOOLKIT

CAREER PATHWAYS FYI: WIOA Career Pathways Definition

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 of postsecondary education options, including apprenticeships registered under the Act of August 16, 1937;

(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.

Career pathways systems and programs include components that mirror promising practices from the workforce and education arenas at the Federal, State and local levels, and the public and private sectors are investing significant resources in building the evidence base for this work. Evidence based research takes time, as longitudinal data is necessary to measure an individual’s progress and retention along a career pathway. The Federal government and many states are implementing initiatives to consistently collect and improve upon the quality of their data and are establishing longitudinal data systems across agencies to evaluate the systems they have built.

Federal Investments

The past several years have seen unprecedented collaboration at the Federal level between the U.S. Departments of Labor, Education, and Health and Human Services. The Departments have made important investments to help expand career pathways across the country. The Departments have expressed their shared commitment for career pathway strategies as an effective way of helping youth and adults to acquire marketable skills and industry recognized credentials; developed a common career pathways framework to guide states and local leaders in developing and sustaining career pathways systems; and have hosted three National dialogues to engage individuals across the country on implementation.

While WIOA solidified the definition of career pathways this year, the Departments have continued to encourage states to align their state resources to support integrated service delivery across Federal and state funding streams. Many states have participated with the Federal agencies in undertaking this important work and are well positioned to implement the requirements in the new law for establishing career pathways.
In fact, the new law was the impetus for updating the Toolkit, and it provided an opportunity to engage state champions and leading workforce and educational organizations that have expertise in career pathway development. During the spring of 2015, the Departments asked for help in reviewing a draft Toolkit to ensure it included essential information to engage all the key partners. In addition, the Toolkit reflects input from over 140 respondents as a result of a Request for Information on career pathways that the three Federal agencies issued in 2014. The Department issued a joint Request for Information to solicit information and recommendations about career pathways systems from stakeholders in the public and private sectors that resulted in a final report summarizing facilitators and barriers to career pathways development and implementation as well as promising practices.

Input from all of the stakeholders validated the original Six Key Elements and made suggestions on revisions to the Toolkit by incorporating the latest relevant innovations, creative approaches, and best practices that have emerged since the original publication.

**Impact of WIOA on State Agencies**

WIOA has a far-reaching impact on state agencies. Career pathways are prominent in the new law as a required function of the state and local workforce development boards and is an important component of the State Workforce Plan. The State Plan ensures that all state agencies play a role in the development of a vision for a career pathways state system, as well as how the state system interplays with regional and local career pathways and career pathways plans.

The Unified State Plan also provides an opportunity to lay out state and regional/local strategies for achieving the state's vision. The collective thoughts of all stakeholder agencies should be harnessed to develop statewide strategies for building career pathways that align the education and workforce systems with the in-demand needs of employers. Career pathways are often developed within an industry sector and developed as part of a larger sector strategy. As defined in ETA's Sector Strategy Implementation Framework, a sector strategy\(^2\) is a partnership of multiple employers within a critical industry that brings together education, economic development, workforce systems, and community organizations to identify and collaboratively meet the workforce needs of that industry within a regional labor market. The graphic on the next page highlights how the approaches align and work towards complementary workforce development goals.

With the implementation of WIOA and the job-driven agenda, as well as the continued work on career pathways, sector strategies, and Registered Apprenticeship, USDOL is very excited about the opportunity to strengthen and expand partnerships and align systems at the state and local levels.

These partnerships will ensure that America's workers have the skills they need to obtain good jobs, and that employers have the workers they need to remain competitive and to prosper.

\(^2\) This definition is provided in the ETA Sector Strategies Technical Assistance Initiative’s Sector Strategy Implementation Framework.
INTRODUCTION
CAREER PATHWAYS TOOLKIT

Complementary Approaches to Workforce Development

**INDUSTRY DEMAND FOR SKILLS**
- Identifies Industry Requirements
  - Rigorous Collection & Analysis of Labor Market Data
  - Sets Skill Requirements of Each Job
  - Identifies Natural Progression of Jobs Within Industry
  - Verifies Competency Models
  - Provides Work-based Learning Options
  - Establishes Industry Credential Requirements
  - Sets Global Skill Standards

**WORKFORCE SUPPLY OF SKILLS**
- Provides Educational Options
  - Registered Apprenticeships
  - Contextualized Learning
  - Integrated Education and Training
  - Career Ladders/Lattices/Roadmaps to Careers
  - Competency Models
  - Multiple Entry/Exit Points
  - Stackable Educational/Training Options
  - Supportive Services
  - Degree/Certificate Attainment

**SECTOR STRATEGIES**
- Career Pathways

**CAREER PATHWAYS**
- Sector Strategies
- Industry Requirements
- Key Features
Acknowledgements
Many stakeholders contributed to the development of this revised Toolkit. USDOL thanks Bonnie Elsey, Project Manager; Andrew Herrmann, Project Coordinator; and Jan Bray, Russ Hamm, Debra Mills, and Barry Shaffer, subject matter experts. In addition, two groups of stakeholders convened to provide insight, guidance, and their personal experiences with the Toolkit. The first group of stakeholders included state workforce administrators, adult basic education directors, human service agency directors, workforce development board directors, and postsecondary education representatives to include:

Bryan Albrecht, Wisconsin
Marilyn Barger, Florida
Ray Bentley, Illinois
Jason Dunn, Kentucky
Shalee Hodgson, Oregon
Debra Hsu, Minnesota
Debra Jones, California
Gilda Kennedy, South Carolina
Jon Kerr, Washington
Tom Knight, Michigan
Bethany Leonard, Wisconsin

Emily Lesh, Colorado
Harmony Little, Kentucky
Tom Norman, Minnesota
Karen Rosa, Arkansas
Pat Schramm, Wisconsin
Marlena Sessions, Washington
David Socolow, New Jersey
Mark Toogood, Minnesota
Elroy Willoughby, Arkansas
Bob Witchger, North Carolina

The second group of collaborators included stakeholders from technical assistance providers, associations, and other invested organizations, including:

Judith A. Alamprese, Abt Associates
Yvette Chocolaad, National Association of State Workforce Agencies (NASWA)
Mary Clagett, Jobs for the Future
Todd Cohen, Maher & Maher
Hope Cotner, Center for Occupational Research and Development (CORD)
Maria Flynn, Jobs for the Future
Heather Fox, Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign
Jaimie Francis, U.S. Chamber of Commerce Foundation
Catherine Imperatore, Association for Career and Technical Education (ACTE)

Steven Klein, RTI International
Vinz Koller, Social Policy Research Associates
Sue Liu, The Collaboratory LLC
Mary Alice McCarthy, New America Foundation
Judy Mortrude, CLASP Center for Postsecondary and Economic Success
Amanda Bergson Shilcock, National Skills Coalition
David Socolow, CLASP Center for Postsecondary and Economic Success
Julie Strawn, Abt Associates
Steve Voytek, National Association of State Directors of Career Technical Education Consortium

This Toolkit was revised by Manhattan Strategy Group (Contract #DOLU141A22202) under the technical direction of USDOL/ETA staff Jennifer Troke, Sara Hastings, Robin Fernkas, and Jennifer Kemp.

USDOL also thanks the authors of the original Toolkit: Richard Kozumplik, Annie Nyborg, Daphne Garcia, Laura Cantu, and Chandra Larsen.
ELEMENT ONE
BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

A cross-agency leadership team clarifies the roles and responsibilities of each partner and gains high level support from political leaders for an integrated career pathways system.

Key Element Components:
• Engage cross-agency partners and employers.
• Establish a shared vision, mission, and set of goals.
• Define the roles and responsibilities of all partners.
• Develop a work plan and/or Memorandum of Understanding for the partnership.
The establishment of a comprehensive career pathways system requires strong leadership at the state and local levels as well as meaningful employer engagement. The leadership team, as defined in this Toolkit, refers to a cross-agency team at the state level established to design, implement, and continuously improve upon the state’s career pathways system. The leadership team may be the State’s Workforce Development Board, a sub-committee of the State Board, or an entity that exists for administering state career pathways systems. Regardless of its origin, the policies and strategies of the state leadership team regarding career pathways must be consistent with the state plan required in WIOA signed on July 22, 2014.

WIOA requires the Governor to establish a State Workforce Development Board to assist the Governor in carrying out critical functions of the State’s Workforce Development system. Included in this mandate is the requirement to establish strategies to support the use of career pathways for the purpose of providing individuals, including low-skilled adults, youth, and individuals with barriers to employment (including individuals with disabilities) with workforce development activities, education, and supportive services to enter or retain employment.

**CAREER PATHWAYS FYI: WIOA Functions of State Workforce Development Board**

- **State board shall assist the Governor in—**
  - (1) developing, implementing and modifying the state plan;
  - (2) reviewing statewide policies or programs and aligning workforce development programs that supports a comprehensive and streamlined workforce development system;
  - (3) developing continuous improvement strategies for:
    - (A) identifying and removing barriers to better coordinate, align, and avoid duplication of services;
    - (B) supporting the use of career pathways;
    - (C) conducting effective outreach and providing access for individuals and employers;
    - (D) establishing industry or sector partnerships related to in-demand industry sectors and occupations;
    - (E) encouraging the identification of regions for workforce planning;
    - (F) providing assistance to local boards to support the delivery of services; and
    - (G) providing staff training and awareness across programs;
  - (4) establishing a comprehensive system of state performance accountability measures;
  - (5) identifying and disseminating information on best practices;
  - (6) developing and reviewing statewide policies affecting the coordinated provisions of services through the state’s one-stop system;
  - (7) developing strategies for technological improvements to facilitate access to, and improve the quality of services provided through the one-stop delivery system;
  - (8) aligning technology and data systems across one-stop partner programs;
  - (9) developing allocation formulas for the distribution of funds for adults and youth;
  - (10) preparing annual reports;
  - (11) developing statewide workforce and labor market information system; and
  - (12) developing other policies to enhance the performance of the workforce development system.
The State Workforce Development Board has a strong role in convening a broad base of stakeholders to provide input on the state’s workforce development system. WIOA requires the Governor in partnership with the State Workforce Development Board to submit a four year unified plan. The state’s unified plan requires cross agency partnerships of four core programs: title IB youth, adult, and dislocated worker activities; title II adult education and literacy activities; sections 1-13 of Wagner Peyser Act relating to employment services; and Title I of the Rehabilitation Act of 1973.

WIOA encourages the participation of additional employment and training programs to develop a combined plan that includes the core programs and one or more programs in order to develop a more comprehensive education and workforce system. The combined plan may include programs such as secondary education, postsecondary education, veterans, recently laid-off workers, youth and adults lacking work place skills, individuals with disabilities, justice-involved individuals, English language learners, new Americans, and incumbent workers.

Whether the state submits a unified or combined plan, the cross-agency partnership works to align systems and provides education and training options that focus on the skill demands of regional and local economies. Collaboratively, the partners establish a vision, mission, goals, and strategies that promote the implementation of career pathways systems and programs that ultimately lead to an individual obtaining employment at a family sustaining wage. Successful partnerships make it possible to leverage resources in order to expand upon the services available to all learners.

At the Federal level, agencies are working together to break down silos, create solutions, share successes, and help each other improve outcomes for individuals they serve. Since 2011, USDOL/ETA; Health and Human Services/ Administration for Children and Families (USHHS/ACF); and Department of Education/ Office of Career Technical and Adult Education (USED/OCTAE) have jointly promoted the widespread adoption of career pathways. Federal agencies have worked together on ways to align resources and build capacity among a wide range of stakeholders to ensure that adults and youth have opportunities to gain industry-recognized credentials and skills that allow them to secure employment and advance along a career ladder.

The agencies issued a joint letter in April 2012 defining career pathways as a “series of connected education and training strategies and supportive 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.”

This letter highlights the joint commitment of the U.S. Departments of Education, Health and Human Services, and Labor to promote the use of career pathways approaches as a promising strategy to help adults acquire marketable skills and industry-recognized credentials through better alignment of education, training and employment, and human and social services among public agencies and with employers. The Departments encourage states to align state resources to support integrated service delivery across Federal and state funding streams and to ensure that interested partners and agencies – whether focused on education, workforce development, or human and social services – are aware of this joint commitment for improved collaboration and coordination across programs and funding sources. This letter is available at: http://wdr.doleta.gov/directives/attach/TEN/ten_36_11_att.pdf
The same interagency team has hosted three National Dialogues on Career Pathways. In April 2014, they also issued a joint Request for Information for recommendations about career pathways from stakeholders in the public and private sectors. A diverse group of 141 respondents completed the questionnaire and provided information about existing career pathways systems. The National summary report covers the broad cross-section of stakeholders’ responses and describes the roles and responsibilities of career pathways partners. The respondents also describe how they are handling funding, outcome measures, employer engagement, and scaling programs, and provide a list of best practices. With the passage of WIOA, the Departments are seizing the opportunity to drive joint efforts to build the necessary capacity to implement WIOA successfully. In addition, OCTAE seeks to take advantage of the possibility of a newly reauthorized Carl D. Perkins Vocational and Technical Education Act (Perkins Act) and to maximize its previous investments in career pathways.

Other examples of Federal collaborations include:

- The Departments of Labor and Commerce are working together to better align job training into economic development and to make the business case for Registered Apprenticeship to employers.
- The Departments of Labor and Agriculture are collaborating to identify promising practices between the Supplemental Nutrition Assistance Program (SNAP) Employment and Training program and the broader workforce system.
- The Department of Housing and Urban Development (HUD) teamed up with USDOL to provide guidance and tools for partnerships between public housing authorities and employer-led Workforce Development Boards to generate more job opportunities for HUD-assisted residents.
- Ten Federal Agencies are working together to help individuals with disabilities qualify for an array of summer internships offered under the Workforce Recruitment Program (WRP). WRP is managed by USDOL’s Office of Disability Employment Policy. WRP is a recruitment and referral program that connects Federal and private sector employers nationwide with highly motivated college students and recent graduates with disabilities who are eager to prove their abilities in the workplace.
- USDOL and the Social Security Administration are promoting the importance of state and local workforce agencies as critical players in addressing career needs of disability beneficiaries through the Ticket to Work Program. As of March 31, 2015, approximately 139 workforce agencies are Employment Networks under Ticket to Work earning flexible revenues over $11,786,510 and career services and employment to 6,673 American Job Center (AJC) customers with disabilities.

At the state level, partnerships have also evolved across the country. State level partners can build and maintain career pathways systems that support the development of career pathways programs, adopt a shared vision and strategy, and commit their agencies or organizations to carrying out specific roles and responsibilities. In addition, partnerships can help states develop a plan and work towards braided funding.
COMPONENT 1.1: Engage Cross-Agency Partners and Employers.

Comprehensive career pathways systems require participation at many different levels. The state leadership team represents a diverse group of state and local public agencies, private and non-profit organizations, and employers representing different sectors in the economy to guide the process of developing the career pathways system. They model interagency collaboration, integrate sector strategy principles, craft and implement common goals, and develop a shared vision of how career pathways can benefit the local community and its citizens. The leadership team may embrace the opportunity provided by WIOA to convene a broad stakeholder group, adopt a shared vision, and embed the concepts into their own strategies and policies to support a comprehensive career pathways system. The leadership team may engage additional partner representatives to form an operations team responsible for designing, implementing, and operating the career pathways education and training programs. Other partners become stakeholders that support the career pathways work. As career pathways systems continually develop and change, partners may move back and forth among the roles as needed.

Early on in the development of a career pathways system, the team will want to decide which person and/or agency will take the lead in coordinating the leadership group activities and assigned tasks involved in carrying out the initiative.

Leadership Matters

For career pathways systems to be successful, senior state, and local leaders, including state and local elected officials, support the leadership team by actively endorsing and championing the initiative through their actions, funding, and legislation. It is very helpful for the Governor and State Workforce Development Board to provide leadership to promote and/or steer the partnerships that are necessary to build and sustain a state level career pathways system. The passage of WIOA strengthens this requirement and puts the responsibility on convening a broad base of stakeholders with the Governor and the State Workforce Development Board.
WIOA Core Partners/Unified Plan Development

WIOA core partners are explicitly delineated in the Act and are representatives of Federal programs operating at the state and/or local levels. The state level representatives on the cross-agency leadership team should include at a minimum the WIOA core partners who must be involved in creating the Unified State Plan related to the career pathways system. The Unified Plan shall lay out a four year strategy for the core programs. The State Plan may include additional partners that can assist in identifying the resources that can contribute to blended funding of a career pathways system, and the state may include one or more of these partners and submit a Combined Plan in lieu of a Unified Plan.

WIOA ADDITIONAL PARTNERS/COMBINED PLAN
(may include one or more)

CAREER PATHWAY

<table>
<thead>
<tr>
<th>WIOA CORE PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE I A: ADULT, YOUTH, AND DISLOCATED WORKERS</td>
</tr>
<tr>
<td>TITLE II: ADULT EDUCATION AND LITERACY</td>
</tr>
<tr>
<td>TITLE III: WAGNER-PEYSER ACT (Employment Services)</td>
</tr>
<tr>
<td>TITLE IV: REHABILITATION ACT OF 1973 TITLE I</td>
</tr>
</tbody>
</table>

| POSTSECONDARY EDUCATION (Carl D. Perkins Career & Technical Education) |
| STATE HUMAN SERVICES AGENCY (TANF) |
| SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP) |
| SNAP EMPLOYMENT & TRAINING |
| TRADE READJUSTMENT ASSISTANCE PROGRAM (Trade Act of 1974) |
| VETERANS EMPLOYMENT & TRAINING |
| UNEMPLOYMENT COMPENSATION |
| OLDER WORKER PROGRAMS (Senior Community Service Program) |
| HUD EMPLOYMENT & TRAINING |
| COMMUNITY SERVICE BLOCK GRANT |
| SECOND CHANCE ACT OF 2007 (ex-offenders) |
Team Development and Sustainability
Leadership team members who are knowledgeable of how effective career pathways systems work will be more engaged in the process. The leadership team may consider training team members on the benefits to participants, organizations, and employers in maximizing the overall impact on the local or regional economy. Partnerships provide real support for the effort that go beyond token letters of support. To create a win-win partnership, the team will do several things:

**Understand Each Other’s Programs**
- Understand each other’s specific goals, resources, and program performance measures and requirements.
- Conduct a service/resource mapping session. Though many of the participating organizations and agencies are trying to achieve similar objectives—such as strengthening the local economy—they measure their progress in different ways. By understanding the core elements of each partner’s work, the leadership team can develop a systemic framework that can complement everyone’s goals.

**Understand Career Pathways**
- Make sure all partners understand the big picture of developing a career pathways system. Partners adopt a shared definition of career pathways and key related concepts to embed them into their own strategic plans/goals/strategies and into new and existing policies to support career pathways.

**Focus on Mission**
- Reflect the mission in all career pathways materials and constantly remind partners that the success of the career pathways system depends on the participant outcomes and how well they align with employer demands.

**Communicate Expectations**
- Clearly communicate expectations of each of the participating partners while also acknowledging the value of their contribution to the overall effort. Partners need to realize the importance and impact of their contributions.

**Use Performance Data**
- Use performance data to demonstrate progress and impact. This will also support partner buy-in and reinforce continued engagement over time. When the team regularly reviews data and compares itself to benchmarks, partners can make course corrections and are clear that their contributions are adding value.
A periodic review of state and local team membership can ensure that the team includes representatives that support key functions and services within the system. In addition, new partnerships expand as the group seeks to engage new target populations.

The leadership team will not be able to implement the career pathways system without the help of the staff members within the agencies and organizations represented on the leadership and operations teams. Therefore, once the leadership team convenes, it is important to inform all state and local staff members about the career pathways system development and implementation plan. Training multiple agencies’ staff together on the new career pathways system will model collaboration and ensure that all staff members learn the same information.


Once the career pathways leadership team is formed, it is important that the state system partners (in conjunction with local/regional partners) are committed to a shared vision of industry sector-based career pathways for youth and adults and to a strategy for building, scaling, and sustaining state and local/regional career pathways systems. All partners should be committed to the same mission aligned with common goals and strategies. The vision provides a directional statement and a framework for the team’s area of influence and responsibility by describing the desired future state of the community in a way that inspires the team to progress. A mission statement—a brief description of the team’s fundamental purpose—helps the team agree on what to work on together. Defining these elements will allow the team to establish an agreed-upon set of goals with accompanying strategies and aid in the development of a plan to guide collaborative work. As the system evolves over time, the team commits to reviewing and revising the vision, mission, goals, and strategies regularly to match changing interests and ensure the plan is consistent with the state’s unified/combined plan. The leadership team may find it helpful to develop its shared vision, mission, goals, and strategies during a strategic planning session.

The state leadership team will want to share its strategic plan with local operations team members. The local Workforce Development Boards will want to ensure their vision, mission, goals, and strategies are consistent with the state leadership team’s strategic plan and/or the State’s Unified/Combined Plan.

CAREER PATHWAYS FYI: Career Pathways and WIOA

WIOA makes development of career pathways strategies a function of the state and local workforce boards and encourages career pathways activities under all parts of the Act. The career pathways approach provides a framework for state and local unified/combined planning that reorients existing education and workforce services (including those authorized under WIOA) from myriad disconnected programs toward one system focused on individuals’ postsecondary and economic success.

CAREER PATHWAYS FYI: Career Pathways and WIOA

WIOA increases the emphasis on cross-system alignment, strategic planning, performance measurement and data collection/utilization.
COMPONENT 1.3: Define the Roles and Responsibilities of All Partners.

The leadership team should adopt a shared strategy and formally commit their organizations to carrying out specific roles and responsibilities and to communicate and coordinate with each other to build, scale, and sustain career pathways systems. While some agencies provide services to the general population, others may serve only “targeted” populations. It takes a variety of agencies and/or funding streams to provide comprehensive services to both targeted and universal populations. Partners may continue to define roles and responsibilities by organization and assign critical responsibilities to each team member.

Community service mapping/ resource mapping will allow partners to know what each public and private agency can provide to achieve the career goals of all populations including the specific services for targeted populations. The process will produce the data necessary for coordinating services among multiple agencies and identifying funding streams that can support the development of career pathways systems. The service/resource mapping process will allow all parties to understand each other’s existing roles and responsibilities. The team can develop an operational and strategic plan and assign team members functional roles and/or individual task responsibilities. The team may decide to formalize these relationships with a written agreement or within a memorandum of understanding (MOU) to support sustaining relationships over time.

A Community Service Mapping tool is available in Section 2 of this Toolkit.

CAREER PATHWAYS FYI: It is the responsibility of all partners to

- Leverage and coordinate new Federal, state, and/or private/philanthropic resources to support the local/regional career pathways system and programs.
- Leverage and coordinate existing Federal, State, and/or private/philanthropic resources to support the local/regional career pathways system and programs.

A prerequisite for defining the roles and responsibilities of each of the partners within the career pathways system is shared knowledge of the services each agency provides, the populations it serves, and the service models on which its programs are based.
It is important to define the roles and responsibilities of all partners. The chart on the following page outlines some of the common roles and responsibilities assigned to the key partners involved in developing career pathways systems.

Early in the development of career pathways systems, the team may decide which person and/or agency will take the lead in coordinating the leadership group activities and will assign tasks involved in carrying out the initiative. Consideration should be given to the establishment of at least one full-time staff position within the lead agency to oversee and coordinate leadership team activities and related system development tasks.

Mapping will facilitate the following questions:
The following is an example of typical cross-agency roles. The chart is not all inclusive or prescriptive and state agency partnerships may wish to complete a matrix for their own partnership.

<table>
<thead>
<tr>
<th>Assess skills</th>
<th>Workforce Agencies</th>
<th>Educational Institutions &amp; Agencies</th>
<th>Economic Development Agencies</th>
<th>Human Services Agencies</th>
<th>Community-Based Organizations</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist with financial aid</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist with tuition and fees</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create a job friendly business environment</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create links between credit and non-credit programs</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop curriculum</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop curriculum with multiple entrances/exports and “modularized” (chunked) sections</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver training</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design programs</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engage employers</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expand export opportunities</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fund innovation</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify industry-recognized credentials</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify skill sets</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promote portability and flexibility</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide academic and personal counseling</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide career and personal counseling</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide case management</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide credit for prior learning</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide employment</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide incentives for business expansion</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide incentives to train incumbent workers</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ELEMENT ONE
BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

<table>
<thead>
<tr>
<th>Service</th>
<th>Workforce Agencies</th>
<th>Educational Institutions &amp; Agencies</th>
<th>Economic Development Agencies</th>
<th>Human Services Agencies</th>
<th>Community-Based Organizations</th>
<th>Employers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide job placement assistance</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide job retention services</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide job search assistance</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide labor market information</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide professional development opportunities</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide support services</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide system navigation</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide trainers/faculty</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide training facilities &amp; equipment</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Provide work-based learning opportunities</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Recruit and make referrals</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Recruit new business development</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>
Clarify Working Relationship Between State and Local Partners

In addition to clarifying the roles and responsibilities of the various collaborating partners, the leadership team may want to define the working relationship between the state level and the local level agencies and partners. For example, is decision-making happening at the state level with local officials expected to implement them? Alternatively, is decision making happening at the local level with state officials acting in an advisory and supporting capacity?

However decision-making occurs, it is important to ensure that there is a clear understanding of the roles of each partner and an agreement is made that spells out those roles. Like other partnerships, it may be useful to formalize these relationships with a written plan and/or a MOU.

PROMISING PRACTICE: Virginia Career Pathways—Align Systems

In the spring of 2008, Governor Tim Kaine issued an executive order establishing the Virginia Career Pathways Task Force. This task force included representation from the eight state agencies charged with administration and oversight of the Commonwealth’s workforce development system, as well as a representative from the Commonwealth’s economic development office. Charged by the Governor to develop a career pathways strategic plan, the members met regularly over several months to develop a shared vision, consistent definitions, and systemic expectations of what career pathways meant for the various workforce programs. In December 2008, the task force issued Virginia's career pathways strategic plan, *Bridging Business and Education for the 21st Century Workforce: A Strategic Plan for Virginia’s Career Pathways System*, which outlined a vision for the system and specific goals and outcomes across agencies and programs.

In the years since the release of that plan, the group has continued to meet, collaborate, plan, and problem solve. While the name has changed from task force to work group, and membership has shifted, the core group has remained committed to partnership because of real progress made in building career pathways into Virginia’s workforce development system as well as the trust and respect that has grown among the members. The core group consists of representatives from the Governor’s Office, Department of Labor and Industry, State Council for Higher Education, Virginia Community College System, Department of Social Services, Virginia Employment Commission, and Virginia Economic Development Partnership. The results have exceeded everyone’s early expectations, and they include truly collaborative interagency programming, tens of millions of dollars in public and private grants, and legislation that has advanced recommendations that grew out of the work.
COMPONENT 1.4: Develop a Work Plan and/or Memorandum of Understanding for the Partnership.

Once the leadership team establishes a shared vision, mission, goals, and strategies governing the partnership, the team is ready to develop a work plan consistent with the strategies delineated in the Unified/Combined Plan.

The work plan is necessary for the partnership to accomplish its goals. The work plan should identify who, what, when, and how the strategies will be implemented.

Who: One or more individuals representing an agency responsible for each task, accomplishing the task, and providing progress reports.

What: The annual priorities based on current and projected rigorous assessment of the needs of the state/regional economy, the selected targeted industry sector(s), and the capacity of the system.

When: The timelines assigned to each task to include the completion dates.

How: The strategies required to accomplish each task along with the criteria for system metrics and evaluation.

The work plan may include many of the considerations described in the graphic to the right in the development of the key strategies and tasks.

Partnership Work Plan Considerations:
ELEMENT ONE TOOLBOX

Team Tools

See Section Two—Team Tool How-to Guide for facilitator instructions for each of the following tools:

- Six Key Elements Graphic Framework
  https://learnwork.workforce3one.org/view/2001126552554540652/info
- Six Key Elements Action Planning Tool
  https://learnwork.workforce3one.org/view/2001126942046585407/info
- Service Mapping Tools
  https://learnwork.workforce3one.org/
- Sample Partner Agreements
  https://learnwork.workforce3one.org/view/2001126942046585407/info
- Six Key Elements Readiness Assessment Tool: (available in Section 2 of the Toolkit)

Reports and Publications

ELEMENT TWO
IDENTIFY INDUSTRY SECTORS AND ENGAGE EMPLOYERS

Sectors and industries are selected and are partners and co-investors in the development of career pathways systems.

Key Element Components:

- Conduct labor market analysis to target high demand and growing industries.
- Survey and engage key industry leaders from targeted industries and sector partnerships.
- Clarify the role of employers in the development and operation of programs.
- Identify existing training systems within industry as well as the natural progression and/or mobility (career ladders/lattices).
- Identify the skill competencies and associated training needs.
- Sustain and expand business partnerships.
A career pathways system must be employer driven. This is the single most important transformational element of a career pathways system; employers are a partner and co-investor in the system. As a full partner, employers have active and continual involvement from program inception through implementation. Engaging employers early on in the design of an initiative will help ensure your career pathways system aligns with business needs. Many states are using sector strategies to complement and strengthen their relationships with employers. Sector strategies is a strategic approach to engage employers by bringing together industries critical to the economic success of a region and identifying the skills that are necessary to build the region’s talent pipeline. This approach allows for the development of career pathway programs for a range of workers within a regional economy. Alignment with regional economies allows the career pathways system to identify careers that are emerging, growing, and/or have the greatest need for replacement workers and promise long-term employment at a family-sustaining wage. WIOA strengthens the requirements for state and local providers to align workforce services with regional economic development strategies and sector strategies tailored to their needs.

COMPONENT 2.1: Conduct Labor Market Analysis to Target High-Demand and Growing Industries.

The intent of career pathways is to train participants for the skill needs of employers, so it is essential to select the industries that will benefit the local economy and provide employment at family sustaining wages. Skillful use of labor market information (LMI) is an effective way to manage risk and ensure that the industries chosen will provide the best return on investment. States may wish to analyze many sources of labor market information to identify the regional workforce needs. These sources may include traditional LMI from the Bureau of Labor Statistics, real-time LMI from internet job boards, sophisticated employer internal tracking systems, and industry cluster studies.

CAREER PATHWAYS FYI: Contributions you can expect from industry leaders

Federal employment and training programs are funded at just over $17 billion in the FY 2014 Federal budget. By way of comparison, in 2013, U.S. employers are estimated to have spent over $450 billion on training for their own employees. This amounts to 25 times more than the Federal government spends on job training.

Ready to Work: Job Driven Training and American Opportunity, White House, July 22, 2014
Traditional LMI is employment statistics, job forecasts, wages, demographics, and other labor market data gathered and made available for the exact purpose of assisting public and private organizations, researchers, and others to better understand today’s complex workforce. These data collections are usually tailored to reflect (1) the nation, (2) national regions (e.g. the “northwest”), states, regions within states, and counties/communities. LMI data may also be reported in timeframes such as the previous month, quarter, or year.

CAREER PATHWAYS FYI: In-Demand Industry Sector or Occupation

A) IN GENERAL—The term “in-demand industry sector or occupation” means—
(i) an industry sector that has a substantial current or potential impact (including through jobs that lead to economic self-sufficiency and opportunities for advancement) on the State, regional, or local economy, as appropriate, and that contributes to the growth or stability of other supporting businesses, or the growth of other industry sectors; or
(ii) an occupation that currently has or is projected to have a number of positions (including positions that lead to economic self-sufficiency and opportunities for advancement) in an industry sector so as to have a significant impact on the State, regional, or local economy, as appropriate.

(B) DETERMINATION—The determination of whether an industry sector or occupation is in-demand under this paragraph shall be made by the State board or local board, as appropriate, using State and regional business and labor market projections, including the use of LMI.

HOW TO: Use LMI to Learn

- What skills employers are looking for;
- Which occupational areas are growing in the future;
- Which industries are hiring;
- Where to find employers who are hiring;
- What working conditions are like for specific industries;
- What education and training you need for specific occupations; and
- What factors can stop you from getting a job.
In a broad sense, LMI collects, analyzes, and disseminates employment levels, wages, occupational projections, number of people employed, etc. to predict the relationship between supply and demand. Supply indicates how many individuals are available and capable of taking an explicit job while the demand tells you how many jobs are open – or will open with retirements and job-changers.

LMI agencies look at job vacancies, as well as job growth. There is considerable churning in a labor market as people retire, are promoted, etc. LMI agencies need to look at replacement workers as well as new and emerging job growth in order to identify where the greatest demand for workers will be. The team will elect to prepare training for jobs where the demand is high, the supply of potential workers is low, and the occupations pay a family sustaining wage.

There are many other sources of labor market data to complement the traditional labor market information presented by the Bureau of Labor Statistics. Modern technology allows access to real-time data using software that pulls information from the internet from job posting boards and can provide supplemental data on labor supply and demand. Many larger employers have sophisticated Applicant Tracking Systems (ATSSs) or larger Talent Management Systems (TMSs) to track information on job applications and hiring. These tracking systems help the employers identify skill shortages in their regional economies. This information is critical for them in making management decisions to expand or contract in a region or to invest in training options for the regional workforce that will provide them with a competitive advantage.

In addition, LMI agencies in many states (i.e., California, Connecticut, Colorado, Maryland, Michigan, Minnesota, New Jersey, and Ohio) have analyzed the state’s economy as well as bordering states by looking at the industry clusters influencing a regional economy. Dr. Michael Porter Economist, Harvard Business School, defines industry clusters as “geographic concentrations of interconnected companies, specialized suppliers, and associated institutions in a particular field that are present in a nation or region.” Clusters emerge because they raise a company’s productivity by proximity to local assets and the presence of like firms, institutions, and infrastructure that surround it. To conduct cluster studies, LMI agencies can analyze the state’s economy by looking at the concentration of specific industries within a geographic area by using the North American Industry Classification System (NAICS). The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. The LMI office analyzes the concentration of industries by using a location quotient (LQ). A LQ of employment identifies the relative concentration of employment in an area compared to a larger area. When the LQ is equal to one, the industry cluster share of employment is equal to that of the United States. However, when the LQ is greater than one, the cluster has higher relative share of employment within the state than in the nation. This means the state has a competitive advantage in this industry compared to other states.
Industry Cluster

An industry cluster consists of large and small firms in a single industry. Firms in industry clusters benefit from synergies of association related to shared labor, sources of innovation, suppliers, markets, technology, and infrastructure.

Cluster studies are critical in developing industry sector strategies. Industry sector strategies can address the workforce needs of a larger area by aligning the critical partners of education, training, economic development, and community-based organizations that solve workforce challenges in industries specific to a region. Sector strategies may not fit within geo-political boundaries and may even cross state lines. A good example of the synergies of a cluster study is depicted in the graphic from the National Governor’s Association on the previous page.

Once a detailed analysis of industry clusters is known, state and local Workforce Development Boards can determine the predominance of specific industries and identify new and emerging industries that the Workforce Development Boards can prepare for. This process allows a Board to focus on the strengths of industry clusters and identify if sector partnerships exist to avoid duplicating their work.

Cluster studies also identify new emerging occupations as well as growth occupations that can strengthen the state’s competitive advantage within the industry. A promising practice in Kentucky illustrates how a large industry sector partnership grew as a result of one business identifying training needs and developed into career pathways for automotive workers.

**PROMISING PRACTICE:**
**Automotive Manufacturing Technical Education Collaborative (AMTEC)**

In 2005, the Kentucky Community Technical College System began a customized training program for Toyota. Since the needs of other automotive manufacturers were similar including their supply chain, the automotive sector quickly grew into an automotive industry sector partnership that included other American, Asian, and German auto manufacturers. Today, the Automotive Manufacturing Technical Education Collaborative (AMTEC) has expanded across numerous economic, education, and political boundaries along the I-65 and I-75 corridors from Michigan to Texas. It includes 32 community colleges and labor organizations across 13 states, all focused on the goal of making sure that a new generation of skilled, globally competitive autoworkers emerge. AMTEC uses a sector partnership to identify worker skills needs across two critical job classifications—production and maintenance. AMTEC uses a career pathways approach to make sure the coursework is modular, flexible, and contextualized and produces stackable credentials.

A state, region, or local team just starting out may want to focus first on a single industry. The lessons learned from a small-scale pilot may then inform efforts to add other industries or sector partnerships.

The following promising practice illustrates how Maryland used labor market research to determine a sector focus and to engage employers in their career pathways efforts.
PROMISING PRACTICE: Employer Engagement in Maryland

Maryland has focused its career pathways efforts on its Upper Shore region, where the basis of the economy has shifted from natural resource extraction to manufacturing and services. Although hospitality, tourism, and construction are in decline, healthcare continues as an important economic engine in the region. Accordingly, the Maryland career pathways team wanted a better picture of the Upper Shore’s healthcare labor force. The team had originally planned to hire a consultant to conduct a labor market analysis to get a clearer idea of which occupations to target. Due to limited funding, however, the team decided to conduct an in-house labor-shed analysis instead. This meant collecting data that would allow them to map the geographic distribution of healthcare workers in the region, irrespective of natural or political boundaries. The study would also address underemployment, the willingness of current and prospective employees to change employment, current and desired occupations, wages, hours worked, and the distances workers were willing to commute to work. The team conducted the labor-shed analysis by compiling healthcare industry data via Internet resources. Before using this information to shape the career pathways action plan, however, they met with employers in the region to validate their findings. Being asked to validate this healthcare industry data piqued the employers’ interest in the team’s career pathways work, and they independently requested to be involved in the initiative. A way to validate data became a valuable strategy for recruiting employers.
COMPONENT 2.2: Survey and Engage Key Industry Leaders from Targeted Industries and/or Sector Partnerships.

Leveraging existing sector partnerships can connect the career pathways leadership to the needs and interest of employers. Because of the importance of industry or sector partnerships, WIOA describes their collaborative attributes in the statutes (see the following text box).

CAREER PATHWAYS FYI: Definition of Industry or Sector Partnerships

WIOA defines an industry partnership as a workforce collaborative, convened by or acting in partnership with a state board or local board, that—

(A) organizes key stakeholders in an industry cluster into a working group that focuses on the shared goals and human resources needs of the industry cluster and that includes, at the appropriate stage of development of the partnership—

(i) representatives of multiple businesses or other employers in the industry cluster, including small and medium-sized employers when practicable;

(ii) one or more representatives of a recognized state labor organization or central labor council, or another labor representative, as appropriate; and

(iii) one or more representatives of higher education with, or another provider of, education or training programs that support the industry cluster.

(B) may include representatives of—

(i) state or local government;

(ii) state or local economic development agencies;

(iii) state boards or local boards, as appropriate;

(iv) state workforce agency or other entity providing employment services;

(v) other state or local agencies;

(vi) business or trade associations;

(vii) economic development organizations;

(viii) nonprofit organizations, community-based organizations, or intermediaries;

(ix) philanthropic organizations;

(x) industry associations; and

(xi) other organizations, as determined to be necessary by the members comprising the Industry or sector partnership.

Existing sector partnerships may already have collaborated with local training institutions. Career pathways systems enhance the sector partnership by offering a clear sequence of coursework and credentials that align with the natural progression of occupations within an industry or across industries—a pathway.
The following graphic from the National Governor’s Association illustrates the linkages between sector partnerships and career pathways.

COMPONENT 2.3: Clarify the Role of Employers in the Development and Operation of Programs.

Key employers will accept multiple roles and contribute in the development of career pathways programs. The greater the role of the employers, the more likely the career pathways programs will meet industry needs. The graphic below lists some of the roles that employers can play in the system:

- **PROVIDE REAL EQUIPMENT, SUPPLIES, OR TOOLS**
- **MAKE REAL INDUSTRY-BASED PROJECTS**
- **CO-INVEST RESOURCES IN DEVELOPMENT AND DELIVERY OF TRAINING**
- **ASSIST IN DEVELOPING CERTIFICATION / CREDENTIALING PROCESS**
- **PROVIDE MENTORING OR WORK-BASED LEARNING OPPORTUNITIES**
- **HIRE COMPLETERS**
- **IDENTIFY PARTNER INDUSTRY LEADERS THAT MAY CONTRIBUTE**
- **AFFIRM THE SET OF FOUNDATIONAL ACADEMIC, WORK READINESS, AND TECHNICAL SKILLS, ABILITIES, AND KNOWLEDGE**
- **AFFIRM THE REQUIRED CERTIFICATES AND CREDENTIALS**
- **HELP DESIGN EDUCATION AND TRAINING PROGRAMS**
- **ASSIST IN INSTRUCTION**
- **PROVIDE ON-SITE TRAINING SPACE**

**Write an employer agreement**

It is wise to capture employer involvement in some formal manner. Teams may wish to develop a formalized contract or MOU to document, capture, or describe specific contributions, limitations, issues, legalities, and scope of responsibilities of the employer.

The MOU can specify the parameters of employer contributions such as the specific role of an employer instructor; the rules and expectations of any work-based learning opportunities; the use of the employer’s facilities and equipment; and any co-investment into curriculum development.
COMPONENT 2.4: Identify Existing Training Systems within Industry and the Natural Progression and/or Mobility (Career Ladders/Lattices).

Employers train employees on the job and provide formal and experiential learning to help them acquire skills. To augment industry programs, the career pathways system must understand the type of training available within industry and align curriculum to meet changing industry standards.

The career pathways system will begin by obtaining a full understanding of job clusters and specific jobs within the industry and how they relate to each other. In many companies, there is a well-understood job progression as an employee—seeking upward mobility—learns a job, acquires the competencies to be proficient, and advances to a job requiring more skills and knowledge. Each “next job” generally builds from the competencies, skills, and experiences of the previous job.

It is important for a career pathways program designer to map out the skill acquisitions necessary to advance within the company. The employer may also have a company-based or industry-based certification that authenticates the acquisition of skills. Any new career pathways training system must align with the job progressions, the existing training systems, and the certification system in place.

| What are the entry-level positions? | What are the occupations that are a level above entry? | What jobs follow those? | What are the skill requirements to move up? | Is there increasing compensation along with the increased skill requirements? |
COMPONENT 2.5: Identify the Skill Competencies and Associated Training Needs.

At the core of training program design is a thorough understanding of the competencies required for successful job performance. Pathway designers, working with the employer, allow the employer to describe and determine the needed skills and knowledge for the specific career pathways training. Asking the right questions and identifying the skill requirements to perform the essential functions of a job is what gives the employer a competitive advantage.

Develop a competency model

An industry competency model is a collection of competencies (knowledge coupled with skilled tasks) that together define successful performance in a particular job or job family. Competency models designate the industry requirements that are essential components to design training curriculum. An educational design team (”pathway builders”) will work directly with the employer and/or professional association to list or document competencies that an employee must know to perform the job. Sometimes documentation may already exist that will contribute to the development of the model. It is very important that the employer and his team review and confirm the accuracy of the lists of competencies.

For a more detailed explanation of competency models, see Component 3.3 “Review or Develop Competency Models” under Element 3: “Design Education and Training Programs.”
COMPONENT 2.6: Sustain and Expand Business Partnerships.

Strong reliable relationships with employers require a routine series of communications and actions in order to ensure continued commitment from business partners. Working with industry sector partnerships can provide a more organized approach and can provide a better opportunity for sustainability. The leadership team will note that employers often bring different decision-making expectancies and timetables with less tolerance for extended discussions. Members of the leadership team must develop a communication style that reflects the urgency and needs of employers while ensuring their own staff’s program design needs are being heard. Figure out how to merge the varying styles and expectations and be well organized. As the career pathways systems expand to target additional industries or sector partnerships, other employers are cultivated to inform all new career pathways program development.

<table>
<thead>
<tr>
<th>New Relationship</th>
<th>Working Relationship</th>
<th>Strategic Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I</td>
<td>Level II</td>
<td>Level III</td>
</tr>
<tr>
<td>Advising</td>
<td>Capacity-building</td>
<td>Co-designing</td>
</tr>
<tr>
<td>Initial contact/new relationship</td>
<td>Establishing trust and credibility</td>
<td>Working relationship</td>
</tr>
<tr>
<td>Discuss hiring needs, skills, competencies; advise on curricula; contract training; hire graduates</td>
<td>Job site tours, speakers, mock interviews, internships, needs assessment, loan/donate equipment, recruiting</td>
<td>Curriculum and pathway development; adjunct faculty and preceptors</td>
</tr>
</tbody>
</table>

ELEMENT TWO TOOLBOX

Team Tools

- Six Key Elements Readiness Assessment Tool: (available in Section 2 of the Toolkit)
- Key Elements Action Planning Tool https://learnwork.workforce3one.org/view/2001120642119875739/info

Reports and Publications


ELEMENT THREE
DESIGN EDUCATION AND TRAINING PROGRAMS

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

Key Element Components:

- Identify and engage education and training partners.
- Identify target populations, entry points, and recruitment strategies.
- Review, develop, or modify competency models with employers and develop and validate career ladders/lattices.
- Develop or modify programs to ensure they meet industry recognized and/or postsecondary credentials.
- Analyze the state’s and region’s education and training resource and response capability.
- Research and promote work-based learning opportunities within business and industry.
- Develop integrated, accelerated, contextualized learning strategies.
- Provide flexible delivery methods.
- Provide career services, case management, and comprehensive supportive services.
- Provide employment assistance and retention services.
In a comprehensive career pathways system, education and training programs provide a clear sequence of education courses and credentials combined with continual seamless support systems that prepare individuals, regardless of their skill levels at the point of entry, for postsecondary education, training, and employment. Likewise, the Career and Technical Education system (CTE) requires a clear sequence of courses that must align with postsecondary education and the workforce training systems in order for youth to benefit from a career pathways system. As addressed in Element One and Element Two, all the partners connected to the career pathways system work together to ensure that local education and training programs align with the skills requirements of growing and emerging industries while simultaneously meeting the education and training needs of diverse populations. WIOA strengthens this requirement throughout. Therefore, designing these programs cannot be “business as usual” and requires “out of the box” thinking to best meet the needs of employers and learners. The Center for Law and Social Policy (CLASP) has developed the following depiction of a career pathways process (see graphic on next page).

Adults, youth, and non-traditional, working learners often struggle to complete education and training programs that provide the necessary credentials for many growing careers. This is especially true for those who lack basic skills, including work readiness skills and English language comprehension. These populations often have other barriers to training and employment, such as transportation and the need for childcare. In addition, working learners have the added challenge of balancing jobs with education or training, which makes flexible training programs, such as evening/weekend, and/or online classes critical to their success. Designing training programs that accommodate these challenges ensures higher completion rates. When training and education programs do not accommodate the needs of adults, youth, and non-traditional students, they drop out. Developing career pathways-oriented education programs that support the unique needs of targeted populations helps patch the “leaky pipeline” of learners prematurely exiting training programs.

Career pathways systems provide participants with multiple entry points to accommodate academic readiness and multiple exit points to permit on ramp and off ramp when necessary. The intent for career pathways is to lead to industry-recognized credentials, at family supporting wages with occupational advancement opportunities.
An Overview of the Design Process

Although career pathways require new business processes to be inclusive of the partnership, the design of curriculum leading to a pathway still requires a more traditional approach from identifying the skills and knowledge needed by the employer to creating courses and programs—a “pathway.”

The process begins by identifying and capturing the employer-based competencies required for successful job performance (refer to Component 3.3 of this element). As noted in the diagram on the next page, competencies are the basic building blocks of what ultimately becomes a program of study—a career pathway.

Designing programs requires organizing competencies into a logical sequence of information and experiences by applying teaching methodologies. These include lesson plans, instructional content, materials, learning experiences, resources, and evaluation all designed to help the learner master the knowledge and skills required to attain and perform a job. The package of competencies and methodologies is the curriculum of a course. The curriculum itself may be delivered in multiple modalities including a combination of experiential learning, classroom instruction, e-learning, etc.

**COMPONENT 3.1: Identify and Engage Education and Training Partners**

The education and training for a complete career pathways program may require multiple educational, service, and/or community-based organizations. In an effort to avoid duplication, the career pathways team should identify all potential “education, training and service partners” within the team’s service area including secondary education. It is especially important, whenever feasible, to coordinate opportunities for dual enrollment between secondary and postsecondary education. Dual enrollment or dual credit allows secondary students to enroll in courses at institutions of higher education and earn both high school and postsecondary credit for completing a class. The intent of the program is two-fold: (1) to provide learners with opportunities for additional academic challenge and rigor, and (2) to offer an alternative educational setting that may stimulate interest and result in accelerated course completion options.

**HOW TO:**
Determine the Strengths of Potential Training Partners by Asking About...

- Courses and curriculum offered;
- Dual enrollment options;
- Credentials offered upon completion;
- Credentials and experience of faculty;
- Organization(s) that oversee, certifi, or approve of the training;
- Funding capacity and budget;
- Curriculum alignment with industry recognized credentials; and
- Placement rate and earnings of graduates.
COMPONENT 3.2: Identify Target Populations, Entry Points and Recruitment Strategies.

The leadership team should explore opportunities to recruit special populations which may include individuals lacking basic or work readiness skills, individuals receiving public assistance, individuals with a disability, and individuals who are English language learners. Career pathways programs are well suited to help these populations and address their barriers and help them gain occupational skills that are in demand.

Learn about the target population
Collaborating with local community-based organizations can help the team understand some of the characteristics and corresponding needs required by these populations. The more known about the client base, the better a career pathways program will be able to address barriers and increase the potential for program success.

Consider employability skills
Employability skills is a critical component to college and career readiness and requires integration into career pathway curriculum and experiences, especially for some populations. Employability skills are general skills that most employers demand and typically fall into three broad categories:

- **Applied Knowledge**—the thoughtful integration of academic knowledge and technical skills, put to practical use in the workplace;
- **Effective Relationships**—the interpersonal skills and personal qualities that enable

Build a Pipeline
Recruitment strategies for special populations require the help of a widespread collaboration of community organizations, especially community-based groups that serve specific populations. The team should consider designing a marketing/outreach strategy that uses the contacts of partners and uses marketing tools that reach the targeted population. For example, social media tools such as Facebook, Twitter and others are used effectively for reaching younger targets.

CAREER PATHWAYS FYI: WIOA
Definition of English Language Learner

Individual who has limited ability in reading, writing, or comprehending English language and—

(A) whose native language is a language other than English; or

(B) who lives in a family or community environment where a language other than English is the dominant language.

CAREER PATHWAYS FYI: Americans with Disabilities Act Definition of an Individual with a Disability

An individual with a disability is a person who has:

1. A physical or mental impairment that substantially limits one or more major life activities;
2. A record of such an impairment; or
3. Is regarded as having such an impairment

HOW TO: Critical Information Needed to Identify, Select, and Serve Targeted Populations

- Economic status;
- Residence and location;
- Educational attainment;
- English proficiency;
- Literacy skills;
- Work history;
- Culture impacts; and
- Special accommodations, if needed.
individuals to interact effectively with clients, coworkers, and supervisors; and

- **Workplace Skills**—the analytical and organizational skills and understandings that employees need to successfully perform work tasks.

### Multiple Program Entry Points

The career pathways system should provide courses and experiences that allow learners to begin from a point where he/she can succeed and build upon. To make the best match between learner readiness and a specific set of courses requires assessing the learner. With multiple entry points, some learners may need basic skills to include reading, math, and work readiness skills. Other learners may have good education skills and enter the pathway at a higher level. Additional personal assessments such as drug/alcohol use and a criminal background check may be necessary for some programs of study.

### CAREER PATHWAYS FYI: Potential Community Organizations to Collaborate With

- Minority-based, private, non-profits;
- Refugee organizations;
- Faith-based community organizations;
- Veteran organizations;
- Organizations serving individuals with disabilities;
- Temporary Assistance for Needy Families (TANF) organizations;
- Organizations serving dislocated workers; and
- Youth-serving organizations.

### PROMISING PRACTICE: Instituto del Progresso Latino

Staff members at *Instituto del Progresso Latino* in Chicago, Illinois, learned early on that to keep their adult population engaged in learning they needed an innovative curriculum approach. Contextualized basic skills courses allowed the *Carreras En Salud* program to combine academic instruction with technical training for the healthcare industry. Instituto’s curriculum developers observed the workplaces of their employer partners, specifically looking at the duties, skills, and information required to perform jobs such as Certified Nursing Assistant (CNA) and Licensed Practical Nurse (LPN). These observations led to the production of a customized curriculum that met the needs of employers and had embedded in it the basic academic skills instruction that learners needed. Instituto’s success shows in its high retention rates (70% to 90% depending on the cohort) and the average wage increases of their LPN program completers ($10 to $25 per hour). Additionally, 88% of students complete their Vocational English Language Acquisition (ELA)/Pre-CNA courses and 77% advance to the bridge portion of the program. For more information please see: [http://www.idpl.org/](http://www.idpl.org/)
COMPONENT 3.3: Review, Develop, or Modify Competency Models with Employers and Develop and Validate Career Ladders/Lattices.

Competency Models
An industry competency model is a collection of competencies, skills, and knowledge that together define successful performance in a particular industry or cluster of related occupations. Competency models articulate the business and industry requirements that are essential components for the development of curriculum, skill assessment instruments, and certifications. Competency models, as the basic building block, also facilitate the development of the courses and ultimately the career pathways and career lattices that provide the framework for career advancement.

The Competency Model Clearinghouse, developed by USDOL, provides tools and resources for building competency models (from scratch or by modifying existing models) as well as developing career ladders/lattices based on competency models. See the resources in the Toolbox at the end of this section for a link to Competency Model Clearinghouse resources.

HOW TO: Steps in Building Competency Models

- Educator reviews the existing competency models in the database as a reference point with employer;
- Employer identifies the critical work functions or tasks in the workplace for a specific job;
- Employer and educator engage Subject Matter Experts (SMEs) currently performing the job tasks;
- SMEs identify the most critical and frequently performed tasks;
- SMEs identify the knowledge, skills, and abilities it takes to perform tasks; and
- Employer and educator validate competency model for the specific job.

Employers are crucial in developing competency models for selected occupations within their local and regional industry sectors. USDOL has compiled a database of employer-approved competencies that can serve as a good starting point when developing a competency model for a particular sector. The team can ask local employers to validate a competency model drawn from the database, and suggest changes based on the unique requirements for their businesses. The following example depicts a competency model from Allied Health.
In addition to validating an existing competency model, the employer and educator may wish to conduct a job profiling or job analysis session in which they verify the knowledge, skills, and abilities required to successfully perform “critical work functions” or tasks in the workplace. This may provide more information on the specific skill sets required for the employer’s work site. In general, competency models include foundational skills to include personal effectiveness, academic competencies, workplace competencies, and industry-wide competencies.
Once employers have informed and validated the competencies related to the selected occupation, they may wish to continue the process for higher-level jobs in their organization. Educators may now engage employers in the next step—program development.

### Career Ladders and Lattices

At the heart of effective career pathways programs are career ladders and lattices that describe the passageways by which individuals can ascend from entry-level jobs to higher-level jobs within an occupational area. Career ladders/lattices often coincide with the previous step in developing competency models. Using these competency models, educational institutions design incremental training modules as a sequence of courses leading to industry-recognized credentials or certificates. Often, these credentials are added together—sometimes called “stacked”—so that they progressively lead to a diploma or degree. Participants may complete one or more certificate/credential programs, all linked together within the career ladder. In general, each “rung” on the ladder (often marked by an earned certificate or credential) leads to the opportunity for employment within a certain set of occupations associated with the career ladder.

### CAREER PATHWAYS FYI: Career Ladders/Career Lattices

Career ladders/lattices are a group of related jobs that may comprise a career. They may include a pictorial representation of job progression in a career and detailed descriptions of the jobs, education, and experiences that facilitate movement between jobs.

- Career ladders display only “vertical” movement between jobs.
- Career lattices show both vertical and lateral movement between jobs and may reflect more accurately today’s complex career paths.

Optimally, participants are able to “enter” and “exit” the career pathway ladder over the course of their careers, periodically “stacking” or earning additional certificates and credentials leading to positions of increased responsibility and higher wages. An example of the career ladder for a Registered Nurse (RN) appears on the following page. To learn how to create these visuals, see the Toolbox at the end of this section.

### HOW TO: Critical Questions to Ask Employers When Building Competency Models

- Which of these competencies are needed for entry-level jobs?
- Which of these competencies are needed for each step in the career progression?
- Which competencies build upon each other and lead to the next step in the career progression?
- Which of these competencies are lacking within the current labor force and need skill building opportunities for workers and job candidates?
Example of Career Lattice for Registered Nurses

HOW TO: Questions to Confirm That Programs Align With Industry Skill Needs

• Are the competency lists accurate and/or have they changed recently?
• Are the skills still critical for the occupation and are there job vacancies in the occupation?
• Does the progression of courses and learning experience match learning on the job and make sense within the industry?
• Are the ladder and the curriculum complete, accurate, and up to date, with the right skills?
• Do the learning labs match equipment and processes within the industry?
• Are the credentials and certificates accurate and reflective of industry standards?
Career Pathways Roadmap: Accounting/Bookkeeping

Another example of a career pathways roadmap for a profession from Portland Community College in Oregon is provided below:

Portland Community College - Entrance Considerations
Admission to the College Tuition & Fees
Prerequisites: Math 20, Writing 115, Reading 115
Location: PCC Cascade, PCC Rock Creek, PCC Sylvania

PCC - Career Pathways Certificate
Entry-Level Accounting Clerk

PCC - Less-Than-One-Year Certificate
Accelerated Accounting

PCC - One-Year Certificate
Accounting Clerk

PCC - Associate of Applied Science Degree
Accounting

EMPLOYMENT
Account Collector
Billing Clerk
Credit Authorizer
Information Clerk
Loan Interviewer
Office Worker
Office Clerk
Payroll Clerk
Teller

EMPLOYMENT
Executive Assistant
Bookkeeping Clerk
Brokerage Clerk

EMPLOYMENT
Business Operations Specialist
Mgr. of Admin.
Support Workers
New Accounts Clerk
Tax Preparer

RELATED BACHELOR DEGREE OPTIONS
There are opportunities for educational advancement. Some credits may transfer.

- PCC Career-Technical Transfer Agreements
- PCC University Transfer Resources
- Oregon University System
- Career Options
- Map of Postsecondary Institutions in Oregon

ARTICULATED BACHELOR DEGREE TRANSFER OPTIONS
Articulation agreements between PCC and institutions offering related Bachelor’s degrees are listed on the PCC Career-Technical Transfer Agreements

Portland Community College. Road Map: Accounting/Bookkeeping.
Component 3.4: Develop or Modify Programs with Industry Recognized and/or Postsecondary Credentials.

Constantly Check in with Employers

Continued guidance from employers during the design process is necessary to confirm the courses and programs will meet the skill needs of local/regional industry sectors.

Types of Credentials and Definitions

Many different agencies, organizations, and industry associations award credentials. Understanding the different characteristics of each type of credential and the “doorways” they provide to those who earn them is important.

A credential attests to a specific qualification or competence. Third party organizations with relevant authority or jurisdiction, (accredited educational institution, an industry association, or an occupational or professional association), award credentials to individuals. One important source of information on credentials is the Career One Stops’ certification database. The resource section has more information about finding and learning about credentials.

CAREER PATHWAYS FYI: Recognized Postsecondary Credential

The term “recognized postsecondary credential” means a credential consisting of an industry-recognized certificate or certification, a certificate of completion of an apprenticeship, a license recognized by the State involved or Federal Government, or an associate or baccalaureate degree.

Postsecondary credentials are extremely critical when they are a prerequisite to licensure. Many occupations require a postsecondary credential from an accredited body before an individual can take an exam leading to licensure. This can be especially difficult when the licensure body requires the credential to be from a postsecondary school in the United States. Many foreign educated workers cannot demonstrate they have the prerequisite skills without returning to a postsecondary education agency in the United States. The text box on the following page is an example of how Maryland reached out to immigrants living in the United States to assist them on the pathway to licensure in this country.
The Welcome Back Center of Suburban Maryland is an innovative model that builds on the personal and professional assets of immigrants living in the United States to: further address health professional shortages; diversify the health workforce; provide economic opportunities to underutilized individuals as they return to work in the health field; and enhance health outcomes of the entire community. In 2006, the Latino Health Initiative (Montgomery County Department of Health and Human Services) launched the Foreign-Trained Health Professionals Program to facilitate the Maryland health professions licensure process. In 2010, this program became the “Welcome Back Center of Suburban Maryland,” one of several centers comprising the national “Welcome Back Initiative” network. The center provides a comprehensive, integrated, and coordinated approach to effectively address the needs and decrease the challenges and barriers foreign-trained health professionals encounter in Maryland in obtaining their licenses. Partners include an array of state and local organizations and employers, including the Montgomery Works One-Stop Career Centers, the Maryland Hospital Association; the Governor’s Workforce Investment Board; Montgomery College; the County Department of Economic Development; and Holy Cross, Shady Grove, and Washington Adventist hospitals.

- The Center uses a successful model of services that provides:
- Guidance and support, including individualized case management;
- Academic training, including English as a Second Language instruction and board exam preparation;
- On-the-job exposure to the U.S. healthcare system and mentoring at Maryland hospitals and other healthcare facilities;
- Pre-employment services for health-related jobs, career development support, and job-readiness training; and
- Leadership development for culturally competent leaders.
# Types of Career Pathways Related Credentials

<table>
<thead>
<tr>
<th><strong>EDUCATIONAL AWARD</strong></th>
<th><strong>CERTIFICATION/PERSONNEL CERTIFICATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CERTIFICATE</strong>: A formal award certifying the satisfactory completion of a postsecondary education program.</td>
<td>A certification indicates that the individual has acquired the necessary attributes (based on a formal study) to perform a specific occupation or skill. Personnel certifications are granted by a third party non-governmental agency (usually an industry association or industries) and are time limited. The certification process requires an examination process that the individual has mastered the required industry standards and may be renewed through a recertification process or rescinded for ethical violations and/or incompetence.</td>
</tr>
<tr>
<td><strong>DEGREE</strong>: An award conferred by a college, university, or other postsecondary education institution as official recognition of the successful completion of a program of study.</td>
<td></td>
</tr>
<tr>
<td><strong>DIPLOMA</strong>: An award signifying the completion of a course of study.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>APPRENTICESHIP CERTIFICATE</strong></th>
<th><strong>LICENSE/OCCUPATIONAL LICENSE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>An award certifying the completion of an apprenticeship program. USDOL or a state apprenticeship agency issues apprenticeship certificates. The apprenticeship system offers two types of credentials: 1) certificate of completion of an apprenticeship program, and 2) interim credentials such as pre-apprenticeship.</td>
<td>An occupational license is typically granted by a Federal, state, or local government agency; is mandatory in the relevant jurisdiction; is intended to set professional standards and ensure safety and quality of work; is required in addition to other credentials; is defined by laws and regulations; and is time-limited. Violation of the terms of the license can result in legal action.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>INDUSTRY-RECOGNIZED CREDENTIALS</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>These are either developed or endorsed by a nationally recognized industry association or organization and are sought or accepted by companies within the industry sector for purposes of hiring or recruitment. Having credentials be industry-recognized ensures potential employers that holders of the credential have the core competencies needed by employers for industry jobs. USDOL certification finder: <a href="http://www.careeronestop.org/businesscenter/certifications/certification-finder.aspx">www.careeronestop.org/businesscenter/certifications/certification-finder.aspx</a></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>STACKABLE CREDENTIAL</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>“A part of a sequence of credentials that can be accumulated over time to build up an individual's qualifications... typically, stackable credentials help individuals move up a career ladder or along a career pathway to different and potentially higher-paying jobs.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PORTABLE CREDENTIAL</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>This credential is “recognized and accepted as verifying the qualifications of an individual in other settings—either in other geographic areas, at other educational institutions, or by other industries or employing companies.”</td>
<td></td>
</tr>
</tbody>
</table>

USDOL Guidance Letter (TEGL-15-10) published December 15, 2010
COMPONENT 3.5: Analyze the State’s and Regions’ Education and Training Resources and Response Capability.

A survey or review of the available education and training resources that currently exist will expedite identifying what will be required to meet employer needs.

Identify the “Gaps” in Training Resources

- Do adequate training facilities (classrooms and lab space) exist?
- Are there adequate and appropriate educational staff to advise, counsel, and tutor?
- Are there employer work-based learning sites, training spaces, equipment, and materials available?
- Do instructors have appropriate credentials?
- Is there appropriate equipment for hands-on instruction?
- Are training slots available for occupations requiring a specific number of supervised hours on the job prior to licensure, e.g., clinicals for Registered Nurse and supervised practicum for Psychologist?
- Are there adequate supplies, books, e-learning options, and tools available?

COMPONENT 3.6: Research and Promote Work-based Learning Opportunities within Business and Industry.

Work-based learning may be the oldest type of formal learning. Experienced workers frequently demonstrate appropriate work tasks for new employees (“show them the ropes”). There are many different types of work-based learning opportunities that will be featured here.

CAREER PATHWAYS FYI: WIOA Definition of On-the-Job Training

ON-THE-JOB TRAINING—training by an employer that is provided to a paid participant while engaged in productive work in a job that—
(A) provides knowledge or skills essential to the full and adequate performance of the job;
(B) is made available through a program that provides reimbursement to the employer of up to 50 percent of the wage rate of the participant, except as provided in section 134(c)(3)(H), for the extraordinary costs of providing the training and additional supervision related to the training; and
(C) is limited in duration as appropriate to the occupation for which the participant is being trained, taking into account the content of the training, the prior work experience of the participant, and the service strategy of the participant, as appropriate.

On-the-Job Training (OJT) while defined specifically in WIOA for program participants, it also generally refers to any type of learning, both formally structured or informally, whereby a learner or entry-level employee learns the knowledge and tasks of a specific job by doing the job. Usually the learner is under the supervision of an experienced employee or supervisor. Formal OJT indicates that the learner is following a curriculum or lesson plan with steps/levels of learning and with recognized points of success.
Registered Apprenticeship is a formalized and highly structured system of learning that is a combination of on-the-job training and related classroom instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. It is an educational process that is overseen by a regulatory or certification organization and has been approved by the organization or the State/Federal government. Employers and labor groups, individual employers, and/or employer associations jointly sponsor apprenticeship programs. The process is most often operated under the USDOL/ETA, Office of Apprenticeship (OA) that registers apprenticeship programs and apprentices.

Pre-apprenticeship programs: Pre-apprenticeship programs are designed to prepare individuals to enter and succeed in Registered Apprenticeship programs. These programs have a documented partnership with at least one Registered Apprenticeship program sponsor and together, they expand the participant’s career pathway opportunities with industry-based training coupled with classroom instruction. Pre-apprenticeship programs are intended to explore occupational opportunities while bridging the gap of an individual’s basic skills (including English language learners) leading up to an opportunity to enter an apprentice occupation.

Internships and paid/unpaid work experience: Internships may be either paid or unpaid and provide a learning experience where the individual works on real job tasks. They are often of short duration and an individual may move around within an organization trying different tasks.

Incumbent worker training: Incumbent worker training is designed to meet the special requirements of an employer (including a group of employers) to retain a skilled workforce or avert the need to lay off employees by assisting the workers in obtaining the skills necessary to retain employment. In accordance with WIOA, the employer or group of employers must pay for a significant share of the cost of the training.

Customized training: Customized training is designed to meet the special requirements of an employer or group of employers, conducted with a commitment by the employer to employ all individuals upon successful completion of training. The employer must pay for a significant share of the cost of the training.

Transitional jobs: Transitional jobs are time-limited work experiences that are subsidized for individuals with barriers to employment who are chronically unemployed or have an inconsistent work history. These jobs may be in the public, private, or non-profit sectors. Transitional jobs can be effective solutions for individuals to gain necessary work experience that they would otherwise not be able to get through training or an OJT contract.

Job shadowing: Job shadowing is an initial experience where the individual follows a regular employee through a day to gather information on the job and the work setting. It is typically unpaid and is a good way to expose individuals including youth to various occupations.

Youth mentoring: Youth mentoring, as defined in WIOA, must last at least 12 months and defines the mentoring relationship. It must be provided by an adult other than the WIOA youth participant’s assigned case manager since mentoring is above and beyond typical case management services. Mentoring may take many forms, but at a minimum must include a youth participant matched with an individual adult mentor other than the participant’s case manager.

Mentoring: Mentoring is a more complex relationship between an individual and an experienced employee. The mentor observes the mentee’s performance and will routinely comment on it and make suggestions, teach, or give constructive feedback.
**PROMISING PRACTICE: Apprenticeship in South Carolina**

South Carolina took a comprehensive approach to expanding Registered Apprenticeships in the state. By offering employers a modest $1,000 tax credit per apprentice and establishing Apprenticeship Carolina, an apprenticeships’ marketing and employer assistance office within the state technical college system, South Carolina has made it easier for employers to design and launch apprenticeship programs tailored to their companies’ needs. For more information please see: [http://www.apprenticeshipcarolina.com/](http://www.apprenticeshipcarolina.com/)
COMPONENT 3.7: Develop Accelerated, Contextualized Learning Strategies.

Career pathways programs offer a clear sequence of education coursework and/or training credentials aligned with employer-validated work readiness standards and competencies. Education and training programs are structured with enough flexibility in design to meet the needs of working learners and non-traditional students. WIOA encourages integrated education and employment opportunities to build upon adults, youth, and non-traditional students’ transferable skills and workforce readiness.

Bridge Programs: It can be difficult to train and employ individuals with multiple barriers to employment, such as insufficient education and/or work experience, limited English proficiency, low-level academic skills, and/or lack of work readiness skills. In addition, other barriers such as childcare, transportation, and/or housing may exist. The accumulation of barriers makes these populations more at risk of failing to complete their training programs that are necessary for them to acquire jobs where they can earn family sustaining wages.

The use of bridge programs is a powerful and effective strategy to overcome multiple barriers. Bridge programs serve to build the foundation skills of individuals whose academic skills do not meet the minimum requirements of a degree or certificate program. Bridge programs allow learners to start from their current skill level and provide them with the extra instructional time to develop the basic skills they need to begin the training program. In some states,
local adult education providers may offer pre-bridge classes to their students that contextualize their basic skill instruction to the occupational language of a career pathways program. Career pathways design and bridge program development often focus on specific populations. Targeted groups could include public assistance recipients, English language learners, veterans, individuals with a disability, at-risk and disconnected youth, dislocated workers, incumbent workers, ex-offenders, or other uniquely defined groups. Typically, a common characteristic of each targeted population is that the individuals have low skills and low educational attainment and are in need of a family sustaining wage. Of special concern are new immigrants who may face a multitude of other challenges besides language, such as cultural differences.

**Progressive and Modularized:** The education/training program is structured so that each course builds upon the next, with individuals moving through competency sets, building and attaining new skills as they go. Modules are taught in manageable “chunks” so individuals with varying levels of proficiency can accomplish them. A chunked curriculum is one that has been broken down into smaller units, each of which is stackable and linked to other modules in a series that culminates in an industry-recognized credential.

**Accelerated:** Many adults may have attained, through life experiences, some of the knowledge and skills required to achieve their career goals. Programs should maximize instruction time by ensuring they do not sit through classes that teach skills they already know. These programs give credit for demonstrated prior learning. Results of administered skill assessments can be used to target and align skill remediation goals with career pipeline objectives. Offering self-paced training curriculum in education and training programs is a good option for allowing working learners to accelerate their educational completion and degree attainment.

**Contextualized:** Research indicates that individuals (both adults and youth) learn best when the skills or knowledge are directly relevant to real work. Contextualized instruction embeds traditional academic content (e.g. reading, writing, mathematics) within the content that is meaningful to learners’ daily lives or interests. Information is usually related to general workplace skills or a specific field or trade. The most successful examples are adult literacy courses that teach reading, writing, or math within the context of an industry sector such as construction, allied health, or service and hospitality.

Contextualized instruction is also another opportunity to engage employer partners. Employers may be willing to provide workplace-learning experiences such as job shadows, internships, and pre-apprenticeships to support learning within a work setting. Making work a central context for learning will also help students attain work readiness skills.

**Multiple Entry/Exit Points:** Individuals are assessed so they may enter a program of study at a level they can succeed at based on their skill levels and personal situation.

---

**PROMISING PRACTICE: NYBEST and Immigrant Bridge Programs**

LaGuardia Community College has designed a college bridge program based off the Washington State I-BEST program. The LaGuardia program is for low-literacy immigrants to improve language and literacy that will allow for enrollment in degree and credential programs. This program utilizes Adult Education funds.

The New York City Immigrant Bridge Program provides individualized career plans, contextualized English for Speakers of Other Languages (ESOL), and job readiness preparation for college-educated immigrants.
Some individuals will leave after attaining a certificate or diploma (e.g., Certified Nursing Assistant) while others may continue their education along a career pathway to acquire higher-level skills (e.g., Licensed Practical Nurse or Licensed Registered Nurse).

**English Language Acquisition Program:**
Many new immigrants and some Americans may not possess English language skills sufficient to benefit from occupational skills training. In these instances, a unique teaching strategy is necessary to ensure these learners have the opportunity to gain the skills necessary to compete in America’s workforce and earn a family sustaining wage.

**CAREER PATHWAYS FYI: WIOA Definition of English Language Acquisition Program**

The term “English language acquisition program” means a program of instruction—

(A) designed to help eligible individuals who are English language learners achieve competence in reading, writing, speaking, and comprehension of the English language; and

(B) that leads to—

(i) attainment of a secondary school diploma or its recognized equivalent; and

(ii) transition to postsecondary education and training; or

(ii) employment.
COMPONENT 3.8: Provide Flexible Delivery Methods.

A variety of individuals will be participating in the career pathways education and training programs. These include recent high school graduates, high school dropouts, incumbent workers, dislocated workers, public assistance recipients, adult learners, youth, part-time workers, justice involved individuals, individuals with a disability, English language learners, and recently returning veterans. Many of these individuals will be parents. The normal college and university schedule—semester coursework with limited summer offerings—does not meet the urgency that non-traditional students have to obtain a credential and find a job.

Flexibility in program offerings means more than class schedules. It also includes e-learning and work-based learning that allows students to progress at their own speed based on their abilities and time availability. Computer-based or web-based lessons allow the learner to study at times that fit their schedules.

PROMISING PRACTICE: Flexibility Means Access and Retention

Ensuring student success can be as simple as providing training programs that are flexible, accessible, and offer certain support services. Owens Community College (OCC) located in Toledo, Ohio, recognized early on that providing accelerated instruction in accessible locations would increase enrollment and retention rates at the campus. In 2007, OCC opened up the Learning Center at the Source, a One-Stop Career Center in downtown Toledo. Understanding the need to quickly get low-skilled adults into the workforce, OCC created accelerated basic skills courses that included two levels of remediation in one class. Accelerating the instruction and providing the course in satellite locations allows OCC to provide instruction during the day, evenings, or weekends, making the program more accessible to working adults and parents. Additionally, OCC instituted enhanced support services coupled with modest scholarships for eligible adult students. Students are assigned advisors who have smaller caseloads than most advisors on the campus, and they are required to meet frequently to discuss their academic progress and address any issues that might impact their participation in the training. Eligible students also receive a $150 scholarship for two semesters and are supported with direct access to financial aid, one-on-one tutoring, and assistance with common barriers such as lack of transportation and childcare. For more information please see: http://www.workingpoorfamilies.org/pdfs/Ohio_Stackable.pdf

Several useful strategies for flexible delivery methods:

- Offer non-semester-based classes;
- Offer classes in the evening and on weekends;
- Offer alternative locations for training, including offerings at employer’s work site;
- Offer credit for prior learning;
- Provide flexibility around course completion when learners encounter unforeseen barriers;
- Provide reasonable accommodations for an individual with a disability;
- Develop alternative options such as web-based training for individuals who may lack easy access to education and training facilities, but who can complete online coursework from home computers; and
- Develop mobile training sites for individuals in rural areas who may lack access to home computers and/or broadband Internet connections.
COMPONENT 3.9: Provide Career Services, Case Management, and Comprehensive Supportive Services.

Program design should include appropriate services for populations that may not be able to participate in employment and training because of personal commitments such as childcare, food, and shelter. For some, attending training requires much more than academic support. Many individuals with a disability or other barriers to employment, including living in rural areas, need additional assistance in the form of transportation to attend training as well as transportation to and from childcare. This should be a part of their individual employment/career plan. For others, tutoring may be necessary in order to keep pace with other learners. Customized services provide the special guidance and support necessary to meet the unique needs of each individual and may require coordination with cross-agency partners.

WIOA identifies these activities as career services. WIOA career services are organized into three categories:

1. **Basic Career Services** - services made available to all participants of a one-stop delivery system.
2. **Individualized Career Services** - services provided to program eligible participants in order to succeed along a career pathway.
3. **Follow-up Career Services** - services necessary to obtain and retain employment.

Many of the career services identified in WIOA are provided by multiple partners and are described in more detail in the following text box.

### CAREER PATHWAYS FYI: WIOA Career Services Includes

<table>
<thead>
<tr>
<th>Basic Career Services</th>
<th>Individualized Career Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) eligibility determination;</td>
<td>(I) comprehensive assessment;</td>
</tr>
<tr>
<td>(ii) outreach, intake, orientation to services;</td>
<td>(II) development of an individual employment plan;</td>
</tr>
<tr>
<td>(iii) initial assessment;</td>
<td>(III) group counseling;</td>
</tr>
<tr>
<td>(iv) labor exchange services;</td>
<td>(IV) individual counseling;</td>
</tr>
<tr>
<td>(v) referrals to and coordination of activities;</td>
<td>(V) career planning;</td>
</tr>
<tr>
<td>(vi) provisions of workforce and labor market statistics;</td>
<td>(VI) short-term pre-vocational services;</td>
</tr>
<tr>
<td>(vii) provisions of performance information and program cost on eligible providers of training;</td>
<td>(VII) internships and work experience;</td>
</tr>
<tr>
<td>(viii) information on local performance accountability measures;</td>
<td>(VIII) workforce preparation activities;</td>
</tr>
<tr>
<td>(ix) availability of supportive services or assistance;</td>
<td>(IX) financial literacy services;</td>
</tr>
<tr>
<td>(x) information on filing claims for Unemployment compensation; and</td>
<td>(X) out-of-area job search assistance, relocation assistance; and</td>
</tr>
<tr>
<td>(xi) information on applying for financial aid for training and education programs.</td>
<td>(XI) English language acquisition and integrated education and training programs.</td>
</tr>
</tbody>
</table>

(xii) **Follow-Up Career Services** including counseling regarding the workplace, for participants in workforce investment activities authorized under this subtitle who are placed in unsubsidized employment, for not less than 12 months after the first day of the employment, as appropriate.
**Case Management**: is an overarching process that may directly arrange for or provide services that allow a learner to participate and complete a program of study. Case management is more a process than a service and typically includes non-instructional activities such as navigation to and arrangements for academic, career or personal counseling, financial aid, childcare, housing, and other financial assistance that can be critical to the success and continued engagement of the individual in pursuing their career pathway component. American Job Centers serve as an important case management option throughout a career pathway trajectory; however, other agencies such as educational institutions, community-based organizations, and faith-based organizations may serve this role.

Although the case manager functions as the “point person” for managing and directing services, the case manager may provide a service directly or refer the learner to another service provider for a specific service. Regardless of who provides the service, the case manager is responsible for ensuring the learner is receiving the necessary services outlined in their career plan/individual employment plan. The case manager monitors the learner’s progress through the career pathway experience and receives regular feedback from appropriate agency staff and the learner.

A good example of the critical activities that a case manager performs is available in an Issues Brief prepared by Mathematica Policy Research under a technical assistance contract with USDOL/ETA.

---

### CAREER PATHWAYS FYI: Case Management Services May Include

- **Conducting Assessments**: Review the participant's strengths and assets, needs and challenges, interests and goals through a variety of assessments to include discovery as well as interest, skills, and aptitude assessments.
- **Career Planning**: Analyze the participant’s skills, interests, and other assessment results, examining current labor market information, and help develop an employment plan.
- **Linking Customers to Supportive Services**: Coordinate access to other services that a customer may need to achieve his or her employment objectives.
- **Job Matching, Placement, and Follow-Up**: Review resume, help the participant develop interviewing skills, or provide links to job leads.

The following diagram is a graphic depiction of the case management process prepared by Mathematica Policy Research.
Although case management is a universal term for directing and coordinating services to an individual, some providers use other terminology to describe the same process. Common process terms used are case conferencing, integrated service teams, and integrated resource teams. For example, The Integrated Resource Team (IRT) model is effective in delivering coordinated services in USDOL’s Disability Employment Initiative. The IRT brings together relevant public and private service agencies on behalf of the customer to coordinate services and resources in a comprehensive manner. A good example of an IRT model is Minnesota’s Disability Employment Initiative Grant described in the following promising practice.

### PROMISING PRACTICE: Minnesota Disability Employment Initiative Grant

The Disability Employment Initiative (DEI) grant to Minnesota’s Department of Employment & Economic Development has found utilizing the IRT strategy extremely helpful in addressing the needs of their youth customers with disabilities. The IRT is a vehicle that is driven by the customer- with-disability’s specific needs drawing in additional service providers from across multiple systems. It explores at an individual level potential models for system-wide partnering because it allows organizations to become knowledgeable about each other, such as staff contacts and resources and services that address specific challenges, while benefiting from the formation of networks that engage IRT members working with, and on behalf of, an individual youth with a disability. In the case of DEI, IRT members may include vocational rehabilitation service counselors, teachers, school counselors, parents or other providers, depending upon the needs and goals of their youth participants and their transition from school to postsecondary education or work experience. MN uses the Guideposts to Success in conjunction with their IRT to provide a holistic approach to the participant’s goals and has found that its DEI youth thrive with the use of the IRT. The success of the IRT model drove more IRTs to form, often initiated without assistance from the Disability Resource Coordinator, as an important tool in resolving a particular youth challenge or to achieve a specific goal. MN has conducted more than 252 individual IRTs over a two-year period. The IRT approach can translate the Leadership Team Partnership process to the individual customer level to explore and implement career pathways that encompass a spectrum of WIOA and non-WIOA partners and engage them intermittently as the individual passes through various stages of their career trajectory. Additional information on IRTs is available on Workforce3One, Disability and Employment Community of Practice: https://disability.workforce3one.org/page/tag/1001518061825599732 Information on the Guideposts to Success is available at the National Collaborative on Workforce and Disability for Youth website: http://www.ncwd-youth.info/guideposts

Regardless of the process for delivery of services, career services are provided by multiple agencies. The basic and individualized career services described in WIOA are very comprehensive. For the purpose of providing training services, agencies may wish to think of what career services fall within career advisement, academic support, and supportive services.
Career Advisement: This support consists of providing career information, academic assessment, and career counseling; developing a career plan/individual employment plan (selecting a career pathway); and providing financial information on the cost as well as identifying resources that may be available to offset those costs.

Providing career information ensures that individuals with limited knowledge of the labor force will receive appropriate information to make an informed career choice. An effective program design includes an assessment of each individual’s skills (academic skills, “soft” or work readiness skills, and technical skills), abilities, and interests. It considers an individual’s previous experience, current life situation, salary expectations, previous training, and degrees, diplomas, certificates, and/or credentials. Career and academic assessment helps individuals determine their current situation and spells out the requirements of a career plan/individual employment plan going forward to meet an ultimate career goal.

Career planning will support an individual’s journey through the pathway, and provide “roadmaps” outlining the education, training, and credentials the learner must complete. An educational institution or a case manager at a private non-profit organization or at an American Job Center may conduct career planning.

For youth, many states have required individualized learning plans (ILP) or career plans. ILPs start with a student, working with a school counselor, to identify their career interests, personal strengths, and work values. Schools that require an individualized learning plan typically provide students with access to computer-based interest and skill inventories; however, tools similar to those used by most schools are readily available for free on the Internet. USDOL provides several free career exploration tools in both paper and computerized formats at: http://www.careerinfonet.org/explore/.

CAREER PATHWAYS FYI FOR YOUTH:
Individualized Learning Plans/Career Plans
Definition for Quality ILPs developed by the National Collaborative on Workforce & Disability for Youth (NCWD/Youth) and its partners.

• A document consisting of: (a) course taking and postsecondary plans aligned to career goals; and (b) documentation of the range of college and career readiness skills that the student has developed.

• A process that enhances the relevance of school and out-of-school learning opportunities, and provides the student access to career development opportunities that incorporate self-exploration, career exploration, and career planning and management skill-building activities.

Academic Support Services: Services designed specifically to retain participants in their selected career pathway. Individuals who are English language learners and/or who lack college readiness skills frequently drop out of college, as the obstacles appear overwhelming. Academic supports are available to lessen the burden and arrange for tutoring or other services that may retain the participant in their career pathway.
Supportive Services: Services that alleviate many of the obstacles that would lessen an individual’s ability to participate in a career pathways program of study. Supportive services provide the basic needs of food, shelter, transportation, and childcare. In addition to an individual’s basic needs, the need for financial literacy and digital literacy are critical for a learner to participate in training and/or employment.
Component 3.10: Provide Employment Assistance and Retention Services.

Employment Assistance: Employment assistance is a final component of providing support to participants and occurs following or near the end of training and education. WIOA identifies employment assistance and retention services as the third and final career service category. Its focus is on assisting participants to prepare to seek employment, get a job, and to manage their careers after employment with the option to engage in continuing education and career planning. Employment assistance may include job-seeking skills such as skills identification, identifying the hidden job market, cover letters, resume preparation, internet applications, interviewing techniques, thank you letters, etc. Finally, providing continued career and education planning after placement can provide the participant with options to move forward along a career pathway.

Retention Services: Although getting a job is an important goal, keeping a job is the ultimate goal. Retention services may include job-keeping skills such as problem solving, following work direction, necessary communications with supervisor and coworkers, appropriate interpersonal relationships with supervisor and coworkers, and balancing work and family. For some populations, retention services may include a job coach or a mentor who can intervene at critical junctures of an individual’s employment. It can also be a job accommodation for an individual with a disability.

CAREER PATHWAYS FYI: Provide Employment Assistance

Employment assistance and retention may include—

- Workforce readiness preparation; e.g., resume writing, cover letters, job interviewing skills, and soft skill training.
- Pre-employment connections to the industry; e.g., internships, co-op programs, work/study programs, work experience, and job shadowing.
- Job search assistance; e.g., navigating job banks as well as techniques in searching the hidden job market.
- Job retention skills; e.g., taking direction, job appropriate behaviors, problem solving techniques, and attendance.
- Special accommodations; e.g., reading software for the blind, on-the-job coaching, and workspace modifications.
ELEMENT THREE TOOLBOX

Team Tools


- Road Map: Accounting/Bookkeeping. Portland Community College.

- Six Key Elements Readiness Assessment Tool: (available in Section 2 of the Toolkit)

Reports and Publications

- Competency Model Clearinghouse (Career One-Stop): http://www.careeronestop.org/CompetencyModel/


- For more information on credentials please see: http://www.careeronestop.org/EducationTraining/KeepLearning/GetCredentials.aspx
• For more information on credentials please see: http://www.careeronestop.org/EducationTraining/KeepLearning/GetCredentials.aspx

• Extended definitions of credentials are found in Attachment 2 of TEG15-10, the “Credential Resource Guide” (p. 2-5). http://wdr.doleta.gov/directives/attach/TEGL15-10a2.pdf

• For more information on apprenticeships please see: http://www.doleta.gov/OA/

• For more information on and an example of contextualized learning please see: Klein-Collins, Rebecca, Building Blocks for Building Skills: An Inventory of Adult Learning Models and Innovations (2006): http://www.cael.org/pdfs/buildingblocksfordatailskills
ELEMENT FOUR
IDENTIFY FUNDING NEEDS AND SOURCES

Necessary resources are raised and/or leveraged to develop, operate, and sustain the career pathways system and programs.

Key Element Components:

- Identify the costs associated with system and program development and operations.
- Identify sources of funding available from partner agencies and related public and private resources and secure funding.
- Develop long-term sustainability plan with state or local partners.
A primary function of the career pathways leadership team involves identifying funding sources to support the collaborative work. A cross-agency leadership team will be knowledgeable of even non-traditional funding streams that may be incorporated such as the flexible revenue streams from the Ticket to Work program. Many American Job Centers are now Employment Networks for the Ticket to Work program and can support career services and accommodations to individuals with disabilities. Each agency partner is knowledgeable of the allowable activities of their funder and can identify resources to apply to system and program operations. By braiding funding across agencies, any gaps in funding can be identified and the partnership can work together to seek additional resources. This process is complex and requires true commitment from agency leaders.

Once funding needs and sources have been identified and agency commitments are made, the leadership team can work together to secure and commit the available funds. The team may wish to designate a specific state agency to coordinate this effort. For any unmet needs, the leadership team members may want to research potential funding from other agencies to include private and philanthropic organizations to support the development and maintenance of system functions and program design as well as implementation and operations. The leadership team members should also identify the measures for Return on Investment (ROI) outcomes. ROI is an important consideration of all agencies contributing funds and a process for communicating the ROI is critical. Information on how to plan for, measure, and communicate ROI can be found in Element Six: Measure System Change and Performance.

CAREER PATHWAYS FYI: Braided Funding

A funding and resource allocation strategy that taps into existing categorical funding streams and uses them to support unified initiatives in as flexible and integrated a manner as possible. Braided funding streams remain visible. Each public funder maintains responsibility for tracking and is accountable for its funds.

As a first step, leadership team members should assess the costs associated with system development and maintenance, program development and operations, and participant cost. Although some of the system costs are one time costs associated with building the system, many are ongoing to sustain the system. The leadership team can identify the ongoing system maintenance cost incurred in supporting broad-based system enhancement and operations by carrying out the activities in the text box on the following page.

Program Development Costs

There are many activities associated with developing and implementing education and training programs. A brief list of high-level costs associated with some of these activities is shown in a text box on the following page. The career pathways programs will continue to evolve to keep up with the changing demands of business for new skills and competencies. Therefore, program costs will continue to require new development costs as well as operational costs.

Participant Costs

A team may also want to look at offsetting participant training fees and other direct customer costs through public or private sources. The leadership team identifies sources to cover some of the direct training costs such as: student aid programs (including Pell grants, Ability to Benefit grants, and state grant programs); WIOA funding; employer-paid tuition reimbursement programs; and/or scholarships. The team can explore other direct customer costs considerations such as WIOA Title I and IV, TANF, and Trade Adjustment Act/Trade Readjustment Allowances and SNAP Employment and Training.
### HOW TO: Determine Start-Up System Costs

- Recruit and engage cross-agency partners to form the leadership team;
- Staff a lead state agency or intermediary to coordinate system development;
- Prepare leadership team meeting agendas and minutes, etc.;
- Participate in leadership meetings to include preparation, attendance, and follow up;
- Develop MOUs between state and local agencies to solidify partnerships;
- Conduct initial labor market analysis;
- Conduct state and regional asset mapping;
- Create state and local level policies that encourage and support career pathways development;
- Incorporate state and local policies into the state/local unified/combined plan;
- Build participant reporting systems to track outcomes in a career pathway program across programs;
- Build financial reporting systems to track expenditures across agencies;
- Create an agreed upon system of evaluation to determine the return on investment of the system;
- Implement a marketing strategy to engage local participation in career pathways systems and programs;
- Prepare request for alternative funding to foundations and private, for-, and non-profit organizations; and
- Educate state and local legislators on career pathways and seek potential funding for system cost.

### HOW TO: Determine System Maintenance Costs

- Support operational functions for coordinating state/local teams, including ongoing funding for a lead agency or intermediary;
- Continue to identify and engage additional partners (local agencies, labor organizations, employers, foundations) as needed to serve on the leadership team;
- Identify, recruit, and engage additional local partners to participate in local career pathways teams;
- Continue to revisit and revise MOUs;
- Educate agencies within the system and people within the community about career pathways;
- Conduct ongoing state and regional labor market analyses;
- Conduct ongoing state and regional asset mapping;
- Revisit policies to support effective system operations;
- Educate legislators of system outcomes and program alignment changes; and
- Maintain, analyze and utilize reporting systems and measures for career pathways system improvement.
HOW TO: Determine Program Development Costs

- Operate programs (personnel, facilities, equipment, materials, and supplies);
- Identify areas of overlap, which may be leveraged between programs (career pathways and programs of study) for greater efficiency and savings;
- Develop contextualized curriculum aligned with industry-validated competency models;
- Sequence course work into modules or “chunks” that lead to industry-recognized certificates, and that can be “stacked” towards earning progressively higher degrees;
- Revise instructional formats for accelerated learning and contextualized training content;
- Revise MOUs with employers, as necessary;
- Coordinate ongoing employer vetting of curriculum;
- Ensure career ladders lead to industry-recognized credentials;
- Determine employer contributions (equipment donations, use of facilities for training, and/or scholarships for incumbent workers);
- Develop new avenues for earning credit for work that was previously non-credit-bearing, as well as credit for prior learning;
- Develop outcome measures and methods for evaluating program effectiveness;
- Provide ongoing cross-system professional development for staff members;
- Collect and analyze data to track program outcomes and support program improvement; and
- Promote career pathways programs in secondary and postsecondary education systems as well as career guidance counselors in education and employment and training systems.

HOW TO: Participant Cost Considerations

- Tuition, fees, books, and supplies (training-related tools and equipment);
- Assessment services;
- Academic support and tutoring;
- Career counseling, advising, and planning;
- Case management and coaching (including navigation of financial aid options, educational programs, and supportive services);
- Mentoring for youth and adults;
- Work experience and internships;
- Supportive services (transportation, childcare, uniforms, living expenses while attending training, etc.);
- Placement and retention services (job referrals, job seeking skill techniques, job coach, etc.);
- Assistive Technology (AT) and other accommodation requirements; and
- Financial literacy and asset development counseling.
COMPONENT 4.2: Identify Sources of Funding from Partner Agencies and Related Public and Private Resources and Secure Funding.

Once costs have been determined, state and local partners can work together to determine the appropriateness of funds that are allowable to fund specific activities. For example, one partner may contribute funds covering outreach and recruitment; another may support client services and counseling while additional partners may use their funds for curriculum development, instruction, and training costs. The leadership team will seek funding from a variety of sources but will first engage the core partners outlined in WIOA (see Element One). The leadership team invites the WIOA core partners and other partner agencies to identify funds to apply to each of the components of the career pathways system. The leveraged resources are committed and the team determines resource gaps and seeks additional funding to fill the gaps. In order to aid the leadership team in this exercise, a worksheet developed by CLASP, A Federal Funding Toolkit for State and Local/Regional Career Pathway Partnerships, is included in Section Two of this Toolkit (http://www.clasp.org/resources-and-publications/funding-career-pathways-a-Federal-funding-Toolkit-for-state-and-local-regional-career-pathway-partnerships).

PROMISING PRACTICE: California Career Pathways Trust

The California Career Pathways Trust (CCPT) grant is a unique and highly competitive program that builds on the creation of partnerships between K-12 schools, community colleges, and businesses to identify local and regional employer needs for the present and the future. These partnership consortia then develop career pathways that connect the K-12 programs and community college programs to the business community through a variety of work-based learning activities such as job shadowing, apprenticeships, and, ultimately, employment. Once a student has an idea of the type of career they are interested in, the career pathway is the roadmap or plan that shows the students and parents what courses they need to take at both the high school and the college level, to prepare them for success in college and career. Through work-based learning, business participation and industry sector specific curriculum, these school programs have much more relevance to the students participating in them, which also better prepares these students for participation in the 21st century workplace. These programs lead students to two-year degrees, certificates, or four-year degrees that prepare them for highly skilled jobs in growing industries.

The development of the applications and the process was a joint effort between the California Department of Education, the California Community College System and the California Workforce Investment board. The initial grant, awarded in 2014 through AB 86, was for a total of $250 million. 123 applications were received. The funding was divided up among 39 applicants with awards ranging from $600,000 to $15 million dollars. Based on the success and demand for the first round of funding, the legislature added another round of funding for 2015. This year’s grant is for an additional $250 million for partnership and career pathway creation. The grant has reporting requirements until 2018. A new and exciting portion of the Trust funding will be the availability of Consortium Development Grants. The purpose of these smaller CCPT Consortium Development Grants is to assist interested groups in examining the feasibility of creating local and regional consortia in their areas. During the first year the funding is to be used to bring groups together to discuss and explore local workforce issues and how the creation of career pathways can help address these shortages. The funding for the second year is to be used to start the work of implementing one or more career pathways. For more information: http://www.cde.ca.gov/ci/ct/pt/
To secure the funding sources, the team signs a MOU to commit funds to the appropriate components of the system. The state agencies who are the recipients of the Federal core partner’s resources, and any additional agency partner program resources can assist local career pathways teams in identifying their program providers at the local level that may be able to commit resources to their local teams. WIOA partner staff can also facilitate formation of Integrated Resource Teams to tap into diverse program resources or services around the individual customer. After considering all potential public agency funding, the leadership team should consider researching private foundations and/or other private non-profit organizations whose mission aligns with the goal of helping participants acquire the necessary skills and credentials to obtain employment in an in-demand industry at a living wage with the opportunity for upward mobility.

In addition, the leadership team should reach out to industry associations, unions, and local businesses that may have funds to contribute to training workers.

For a list of funding sources that may be used to support career pathways systems, see Funding Career Pathways and Career Pathway Bridges: A Federal Policy Toolkit for States.

PROMISING PRACTICE: The Future—Philadelphia

Engaging employers and understanding future workforce trends at the start of an initiative is crucial to developing effective career pathways systems that serve employers and workers alike. Too often relationships with employers are sought at the end of partnership or program development, leading to insufficient outcomes for both employers and students. In Pennsylvania, a group of employers partnered with local and national healthcare unions to develop the Philadelphia-based 1199C Training and Upgrading Fund (TUF) as a way to meet the needs of employers while expanding and connecting educational supports for low-skilled adults. The TUF is an alliance of 55 employers who make monthly contributions (1.5% of gross payroll) to the fund. The fund paid for the development of a new healthcare education and training school, and remaining funds subsidize education and training for union members and individuals in the broader community who are pursuing health careers in Philadelphia. TUF has helped union and community members acquire new skills, which supports employee retention and helps low-skilled adults enter career pathways to higher earning potential. It also meets the demands of its employer base by regularly updating training to address new work requirements and other changes in the industry. Members of the leadership team meet regularly with employers, conduct focus groups to evaluate program design, and host symposiums focused on emerging trends in the healthcare field. The initiative has received recognition from the U.S. Secretaries of Labor and Education for paying attention to the interplay of employer and workforce needs.
COMPONENT 4.3: Develop Long-Term Sustainability Plan with State/Local/Regional Partners.

The career pathways system should be the result of comprehensive and inclusive planning, including external and internal stakeholders. This planning process provides an avenue for identifying and securing necessary sustainable resources.

The leadership team should develop a business plan that documents revenue and expenses to continue the operation and improvement of the career pathways system over a long period. It should clearly define potential funding sources and assign responsibility for the obtainment of each source.

CAREER PATHWAYS FYI: The long-term sustainability plan should build upon the initial funding plan and consider

- Replacement of start-up funds from foundation donors for system building;
- Further state system integration to track participant outcomes to include interface with state’s wage detail system and educational outcome data;
- Collection, analysis, storage, and evaluation of outcome data for continuous improvement;
- Future tuition and fees, including potential increases in amount and the effect on learner participation;
- Upgrading and/or replacement of equipment;
- Potential new industry partners;
- WIOA formula funds Title 1B adult, youth, dislocated worker;
- Operational savings; and
- Grants and private foundation donations.
ELEMENT FOUR TOOLBOX

Team Tools
See Section Two—Team Tool How-to Guide for facilitator instructions for each of the following tools:

- Six Key Elements Graphic Framework: https://learnwork.workforce3one.org/view/2001120641504542734/info
- Six Key Elements Readiness Assessment Tool (available in Section 2 of the Toolkit)
- Six Key Elements Action Planning Tool: https://learnwork.workforce3one.org/view/2001120642119875739/info
- Service Mapping Tools: https://learnwork.workforce3one.org/view/20011206445820802/

Reports and Publications

ELEMENT FIVE
ALIGN POLICIES AND PROGRAMS

State and local policies and administrative reforms have been revised to align with implementation of a career pathways system.

Key Element Components:
• Identify state and local policies necessary to implement career pathways systems.
• Identify and pursue needed reforms in state and local policy.
• Implement statutory and administrative procedures to facilitate cross-agency collaboration.
Aligning workforce development programs is a function of the State Workforce Development Board. The leadership team, in tandem with the Workforce Development Board, may identify barriers to the implementation of the vision, goals, and strategies of a career pathways system. The Board may review the structure within which the system operates. This structure—made up of the laws, regulations, policies, and procedures associated with workforce development, education and training, social services, and economic development programs—may require change in order to implement a state career pathways system.

At the Federal level, the WIOA legislation includes provisions that have lessened the hurdles of Federal legislative alignment and have expanded opportunities for shared accountability. The new legislation can serve as a policy tool to promote coordinated and effective services to individuals who are eligible for multiple funding streams or programs.

In addition to using the leverage of WIOA in aligning systems, programs, and policies, states have a great deal of influence in

**CAREER PATHWAYS FYI: WIOA requires states to align the following programs**

- Employment and training services for adults, dislocated workers, and youth, and Wagner-Peyser employment services administered by USDOL through formula grants to states;
- Adult education and literacy programs and vocational rehabilitation state grant programs that assist individuals with disabilities in obtaining employment administered by USED;
- Programs for specific vulnerable populations, including the Job Corps, YouthBuild, Indian and Native Americans, and Migrant and Seasonal Farmworkers programs; and
- Programs administered by USED and USHHS.

The success of the system will largely depend on partners identifying the relevant policies that allow them to align the structure in support of their new vision. The leadership team can change policies and procedures quite readily, while barriers such as state statutes require legislative changes. Additional barriers regarding data tracking, data sharing, and electronic system alignment may also require substantial investments that require legislative action.

**CAREER PATHWAYS FYI: WIOA strengthens alignment by**

- Requiring common performance accountability system for the core programs;
- Requiring a unified state four-year plan to include core programs;
- Encouraging additional programs to participate such as Temporary Assistance of Needy Families (TANF), SNAP Employment & Training (E&T), and Perkins Career & Technical programs to develop a combined plan;
- Measuring the effectiveness of services to employers for the first time;
- Promoting alignment of the workforce development programs with regional economic development strategies;
- Encouraging the use of sector strategies to engage business;
- Promoting work-based training to assure system is demand driven;
- Strengthening the role of State and local Workforce Development Boards and requiring the development of career pathway strategies; and
- Reinforcing the alignment with Registered Apprenticeship for earn-and-learn opportunities.
whether the programs in the state are job-driven. Governors and State Workforce Development Boards can set industry priority areas based on labor market demand. State agencies can adopt policies that promote the use of data (including labor market information and longitudinal data) for accountability and decision-making. A conscious effort is necessary to ensure the state leadership team for career pathways works with the State Workforce Development Board (if different entities) to ensure that the state’s career pathways strategies align with the strategies outlined in the Unified/Combined State Plan. States may also devote funding to attract businesses to their state and make different decisions about how training programs should support those economic development goals and what level of investment they require of businesses seeking assistance. Governors also have discretion in aligning their job training systems in how they structure their departments within state government.

The Carl D. Perkins Act of 2006 stresses the need for greater alignment between CTE programs and industry. Perkins IV has asked states to support the creation of Programs of Study (POS), an educational option that incorporates and aligns secondary and postsecondary elements. USED’s OCTAE helped states identify 10 essential components of CTE POS. The essential components are designed to prepare students to transition into careers and college and create more structured pathways to postsecondary education.

Many states (e.g., California, Minnesota, North Carolina, Oregon, and Washington) have formulated articulation agreements between high schools and community colleges. Articulation agreements refer to agreements whereby an “articulated” high school course or series of courses have been determined by community college faculties to be comparable to a specific community college course or program. Students earn the college credit by either completing the high school course with a prescribed grade or by participating in a credit by examination process. This “dual-credit” option speeds degree completion for high school students seeking some type of postsecondary credential.

The alignment of these two systems is critical to benefit from the expertise and resources of each system. Jobs for the Future has published a paper, “Advancing Career and Technical Education (CTE) in Career Pathways,” that offers strategies to align these two efforts. The paper provides a helpful crosswalk for states and local communities in aligning these two initiatives. A graphic of the alignment is on the following page. The art of building a career pathways system is to implement changes the agency has control over first while simultaneously working on strategies to change obstacles that are more difficult. Sometimes the most difficult obstacle is trust and the will to align programs for the benefit of the system. In this case, focusing on common vision, mission, and goals can remove some of this while a culture of trust is established.
THE POSTSECONDARY ALIGNMENT OF PROGRAMS
OF STUDY AND ADULT CAREER PATHWAYS

SECONDARY TO POSTSECONDARY PROGRAMS OF STUDY

Accelerated & College Readiness through Dual Enrollment & Integrated Instruction

POSTSECONDARY PATHWAYS (INCLUDING APPRENTICESHIPS)

STACKABLE CREDENTIALS

AA/AAS

BA/BS IN TECHNICAL FIELD

ADULT CAREER PATHWAYS

LOW SKILLED JOBS

SEMI-SKILLED JOBS

MIDDLE SKILLED JOBS

MIDDLE SKILLED JOBS

ADVANCED SKILLED JOBS

SYSTEM OUTCOMES

Financially sustainable, aligned career pathways systems for youth & adults

increased number of skilled workers with credentials of value to the labor market

Greater cost efficiencies by reducing duplication of services

Jobs for the Future. Advancing Career and Technical Education (CTE) in Career Pathways
COMPONENT 5.1: Identify State and Local Policies Necessary to Implement Career Pathways Systems.

As states begin to develop strategies for aligning policies, there are key actions that can be undertaken to facilitate the expansion and success of state initiatives. The “Pathways Network” initiative by Jobs for the Future provides a good listing of the policy actions that facilitate change. These include:

1. **Encouraging** better coordination of resources across state and local agencies to provide funding for scale-up of pathway programs.
2. **Supporting** acceleration of learning through dual enrollment/dual credit.
3. **Integrating** academic and CTE programs and elevating the profile of these programs as a means to develop crucial workplace skills.
4. **Expanding** the mission and purview of workforce development organizations and other economic development non-profits.
5. **Establishing** more robust career information and advising systems linking online resources and appropriate counseling from teachers, mentors, and others through student work-based learning plans.
6. **Developing** policies that incentivize business involvement and work-based learning.

With these actions in mind, state agencies have considerable freedom to structure their career pathways system. State agencies can use their budget authority over Federal funds to align and braid resources across funding streams. States can also incentivize local/regional career pathways systems in how they chose to distribute discretionary resources that may be available. State agencies can provide specific guidance to local areas in developing their local/regional plans that align with industry needs and state strategies for developing career pathways systems. State agencies can also provide guidance and technical assistance on the allowable use of Federal and state funding under their jurisdiction to support career pathways.

A good example of how Federal incentives can align systems is USDOL’s Trade Adjustment Assistance Community College and Career Training (TAACCCT) competitive grant program. The TAACCCT grants align the community college system with business and industry to ensure their programs are demand driven. Grantees were asked to incorporate key features of a career pathways system, including stackable credentials, and multiple entry points that create on-off ramps for workers as they continue in their career path, and articulate from two- to four-year degrees. Although the TAACCCT grant program has a broader scope, it reveals how policy priorities can promote systems change.

**PROMISING PRACTICE: Los Angeles Unified School District Career Academies**

A local example is the Los Angeles Career Academies’ state educational partners that adopt policies that consistently define and document credentials and establish quality assurance processes to ensure their market relevance. The methods education utilizes to engage employers are within their jurisdiction. The educational institutions can also establish consistent assessment. The process for sharing curriculum across the system to maximize its impact can be encouraged by the system office. Articulating and mapping instructional courses from secondary to postsecondary education is within their purview.

The Los Angeles Unified School District received a $7 million grant from the Irvine Foundation to build out new career academies in six high schools that will focus on healthcare, biotechnology, and other technology-related industries. The program is backed by funding from the Irvine Foundation, the United Way of Greater Los Angeles, the Los Angeles workforce investment system, and the Los Angeles Chamber of Commerce and will help provide work-based learning opportunities to students, including 10,000 student summer internships. For more information please see: [http://notebook.lausd.net/portal/page?_pageid=33,153234&_dad=ptl&_schema=PTL_EP](http://notebook.lausd.net/portal/page?_pageid=33,153234&_dad=ptl&_schema=PTL_EP)
COMPONENT 5.2: Identify and Pursue Needed Reforms in State and Local Policy.

To move career pathways forward, state agencies need to examine if there are any real barriers that are in statutes that need addressing. Oftentimes it is policy and resources, not statutes, which created the appearance of a barrier. If there are statutory barriers, state agencies should collaboratively address those issues with the Governor’s office and attempt to move those changes forward through their legislatures. The state and local Workforce Development Board members and business associations can be very helpful in advancing legislative changes that will advance the implementation of a state career pathways system. The Request for Information solicitation issued by USDOL, USED, and USHHS in 2014 served to inform the system of common barriers experienced by states/localities in implementing a comprehensive career pathways system. The most common are listed in the text box below.

CAREER PATHWAYS FYI: Most common barriers identified by states/localities include

- The transferability and recognition of stackable, portable, industry-recognized credentials;
- Federal policies and regulations such as training time limits and work participation requirements of TANF;
- Different performance and outcome measures and participant tracking systems;
- Lack of articulation between credit- and non-credit-bearing pathways;
- Funding limitations; and
- Remaining current on labor market information.

Although these may be real barriers, the Workforce Development Board and the Governor can address them by developing long-term strategies to lessen their impact or alleviate them altogether. With a complete list of barriers, the leadership team may collaboratively develop strategies to address each one. The leadership team should start with barriers that are easier to resolve (including those requiring less financial resources). These barriers can provide the core around which new policies are developed. State and local partners can jointly strategize on solutions. During this process, it is critical that the leadership team keeps its focus on the mission, vision and goals to move forward.

At the Federal level, WIOA acknowledges the importance of program alignment and requires a structure that supports Federal legislative alignment. WIOA has elevated the function of policy review, program alignment, and removing programmatic barriers to the State Workforce Development Board. The new legislation can serve as the impetus for real change and can address the barriers in a four-year Unified/Combined State Plan.
If it is determined the barriers to establishing or expanding a career pathways system are not regulatory or are within their purview, the leadership team should address their key policies, which may hamper the goals and vision for a career pathways system, including those that are necessary for coordinating efforts across the state and/or region. Many current policies—quite inadvertently—may support the status quo. Many systems operate in silos for lack of any strong reason to change. The result is that individuals are not able to easily transition between academic programs, adult education and workforce development training systems. Helpful strategies to support alignment may be:

- Implementing a coordinated and systems approach to youth, adult education, and postsecondary training;
- Developing new and/or strengthened linkages between secondary CTE and academic programs at community colleges, adult basic education programs, and American Job Centers;
- Developing articulation agreements between secondary and postsecondary education;
- Supporting integrated and coordinated services between American Job Centers and TANF service providers;
- Offering programs that allow learners to earn portable and stackable credentials;
- Supporting cross-program and cross-agency professional development;
- Developing work-based learning opportunities;
- Developing an Eligible Training Provider List that promotes the development of career pathways; and
- Establishing and supporting the development of the state’s longitudinal data system.
ELEMENT FIVE
ALIGN POLICIES AND PROGRAMS

COMPONENT 5.3: Implement Statutory and Administrative Procedures to Facilitate Cross-Agency Collaboration.

Implementation of the new policies and procedures will require communication, communication, communication. Continuity of messaging across departments requires coordination. It may be helpful to develop joint letters signed by the leadership team that delineate the policies and practices that will drive the team’s practices going forward.

HOW TO: Engage in Collaborative Communication

• A shared vision and strategies;
• A shared policy agenda to build, scale, and sustain a career pathways system;
• A commitment to collaborate and share and/or leverage resources;
• A requirement for the adaptation of similar local/regional policies;
• An explanation of how the team will hold grantees accountable, and how will they be measured;
• A commitment to share outcome data and work towards a longitudinal participant information system;
• A process for technical assistance; and
• A plan for professional development.

PROMISING PRACTICE: Minnesota FastTRAC

Minnesota FastTRAC (Training, Resources, and Credentialing) seeks to make Minnesota more competitive by meeting common skills needs of businesses and individuals. FastTRAC’s adult career pathways program helps educationally underprepared adults succeed in well-paying careers by integrating basic skills education and career-specific training in high-demand fields. Each local adult career pathways program consists of a series of connected educational and training programs that allows learners to advance over time to successively higher levels of education and employment in a given sector. FastTRAC programs cover key Minnesota industries, including healthcare, manufacturing, education, business, energy, and others. As of December 2012, FastTRAC programs have served more than 1,900 adults at 29 sites. Eighty-eight percent of these adults earned industry-recognized credentials or earned credits toward those credentials, and 69 percent had success either gaining employment or continuing into further career pathways education. Local programs have braided FastTRAC grants with other state and Federal funds. Locals have braided funds from TANF, Workforce Investment Act (WIA) Incentive grants, Adult Basic Education Leadership funds, Perkins funds, foundation funding, Pell grants, and other sources. Currently, an allocation from the state workforce development fund and TANF Innovation funds are braided.
SkillWorks is a multiyear initiative to improve workforce development in Boston and in the Commonwealth of Massachusetts. SkillWorks brings together philanthropy, government, community organizations and employers to address the twin goals of helping low income individuals attain family supporting jobs and businesses find skilled workers. Phase I (2003-2008) invested $15 million to help more than 3,000 workers receive skills training with hundreds entering the workforce or receiving raises and promotions.

Phase II (2009-2013) continued this important work with an added emphasis on better connecting Massachusetts’ community colleges and other post-secondary institutions to the workforce development system. SkillWorks raised $10 million for Phase II for investments in Workforce Partnerships, Public Policy Advocacy and Capacity Building.

Phase III (2014-2018) investments will aim to improve the workforce system’s effectiveness and efficiency, resulting in significantly improved economic outcomes for job and skill seekers, with a priority focus on those in Greater Boston who are low-income and low-skilled. SkillWorks will achieve this goal by leveraging its leadership position and collaborative model to convene business, labor, education, and civic leaders and catalyze change through innovative investments, adoption of best practices and advocacy. SkillWorks is projecting a $5.6 million, five-year budget for Phase III. For more information, read SkillWorks’ Phase III Strategic Plan and check out our latest 1-page snapshot of our strategy, Phase II Outcomes, and Phase III Goals.
ELEMENT FIVE
ALIGN POLICIES AND PROGRAMS

ELEMENT FIVE TOOLBOX

Team Tools

• Six Key Elements Graphic Framework
  https://learnwork.workforce3one.org/view/2001120641504542734/info

• Six Key Elements Readiness Assessment Tool (available in Section 2 of the Toolkit)

• Six Key Elements Action Planning Tool
  https://learnwork.workforce3one.org/view/2001120642119875739/info

• Service Mapping Tools
  https://learnwork.workforce3one.org/view/2001120642445820802/info

Reports and Publications

• Advancing Career and Technical Education (CTE) in State and Local Career Pathways Systems, Jobs for the Future, March 2014,
  http://www.cte.mnscu.edu/programs/advancing-cte-initiative.html


• Harmon, Tim. Shared Accountability in WIOA and Career Pathways. Center for Law and Social Policy, December 2014,

• Los Angeles Unified School District - Los Angeles Academy/Irvine Foundation
  Linked Learning Initiative: http://achieve.lausd.net/Page/524


ELEMENT SIX
MEASURE SYSTEM CHANGE AND PERFORMANCE

Appropriate measures and evaluation methods are in place to support continuous improvement of the career pathways system.

Key Element Components:
- Define desired system, program, and participant outcomes.
- Identify the data needed to measure system, program, and participant outcomes.
- Implement a process to collect, store, track, share, and analyze data.
- Design and implement a plan for reporting system and program outcomes.
Measuring the impact of comprehensive system change is critical to sustaining the support necessary for carrying out a career pathways approach to education and training. To date, there is no evidence-based research that supports the long-term impact of creating career pathways systems. However, many promising practices exist that reveal the effectiveness of some of the components of a specific career pathway program. Evidence-based research will take time and states have initiatives underway to consistently collect and improve upon the quality of their data in order to evaluate their systems.

There are two parallel Federal initiatives underway to encourage the development of higher quality data and analysis. USED has launched a Statewide Longitudinal Data System Initiative (SLDS) and USDOL launched a complementary Workforce Data Quality Initiative (WDQI). SLDS emphasis is on the P-20 longitudinal data systems to capture, analyze, and use student data from preschool to high school, college, and the workforce. WDQI emphasis is on integration of workforce data with education data and on improving the quality of the data. Quality data in an understandable format is essential for students to make an informed choice about a career pathway.

The crucial infrastructure requirements to build and sustain a longitudinal data system are available in a research & evaluation study by IMPAQ International entitled “Using Workforce Data Quality Initiative Databases to Develop & Improve Consumer Report Card Systems.” The infrastructure requirements are:

- Individual-level training data that includes social security numbers (SSNs);
- Capacity to match education and training participation data to state’s wage records;
- Clearance and cooperation to match unemployment compensation wage record data held by State Departments of Labor against participant data held by state’s department of education; and
- Funding and know how to use the data to produce a report card website.

The data quality of the education and workforce systems will enable states to make accessible performance data available to participants in the form of a Consumer Report Card (CRCS). CRCS are state systems for calculating program outcomes based on labor market data (employment, retention, and earnings) for those individuals participating in education & training programs.

PROMISING PRACTICE: Florida’s Consumer Report Card System

Florida began developing its longitudinal administrative data infrastructure in the 1970s and has continued to expand the system. The Florida Consumer Report Card System (CRCS) is developed statewide from workforce and education individual-level data. It covers the K-20 education system and workforce data, including unemployment compensation wage records. The assessment and analysis of participation and outcomes of all education and training programs are conducted exclusively through use of individual-level data from the Florida education and workforce systems. Much of the data analysis connected to the CRCS is conducted by the state. For example, to be put on a local Eligible Training Provider List, a training provider must provide a program that trains for an occupation that is on the Targeted Occupations List—termed “demand occupations”—and must be licensed in Florida to be on the list. The Florida College System has developed a website for parents, students, and interested parties to be able to see recent first-year outcomes by institution and program.
The long-term goal of SLDS and WDQi is to use their longitudinal data systems to draw information across education and training programs to get a more complete picture of how individuals move through education and training programs and onto careers. High quality and consistent data that is available by integrating education and workforce data is more conducive to research and analysis that leads to program improvement, system change, and policy reform. Measuring the impact of a career pathways initiative will not only support efforts to improve program design, but also will communicate to stakeholders the value of their investment.

The career pathways leadership team will set system-level goals for change and identify desired participant and program outcomes to guide career pathways development. The team will use these established goals and desired outcomes as benchmarks for measuring the performance of affiliated education programs, training programs, and supportive services. The team may want to utilize both external and internal evaluation tools and use data to inform continuous improvement. Share the evaluation results with partners (especially employers) and the broader community to solicit support for and understanding of the career pathways system.

Any data the team can derive from employer-driven standards will serve to expand employer engagement. Providing measureable evidence that the skill sets of the local labor force are improving will certainly glean support from local businesses. Such evidence-based practices can assist the team in maintaining current funding and garner new funding sources. Outcome data serves to support continuous improvement of program design by showing what program components work best for targeted populations and what components may require redesign. Finally, analysis of outcome data informs the policy and procedural adjustments that may be necessary for maintaining alignment within the system.

**CAREER PATHWAYS FYI: Improving Strategies**

Career pathways system development offers a unique opportunity to improve strategies for measuring the impact of efforts across systems and programs.

Systems-level career pathways need the support of state and local partnerships, both in the design phase and in their implementation. Clearly defining the anticipated system interfaces and desired changes associated with an effective career pathways design is an important first step in developing a measurement and evaluation process for the overall pathways effort. Examples of system-level changes and outcomes include the development of cross-agency leadership and oversight structures; blending or braiding resources including human and capital; use of shared participant and program data; and alignment between partnering systems of participant activities such as recruitment, placement, assessment, and curriculum.

The leadership team should identify desired program and participant outcomes and related measures during early strategic planning sessions to ensure that the activities carried forth will support long-term goals. Although WIOA clearly articulates the participant outcomes for the WIOA core partners, other measures may be critical to evaluate the system and program design. All partners inform the strategies used for evaluating progress and actively assess the system.

The leadership team should consider both short-term and long-term outcome measures. Short-term outcomes may include “interim” measures, which serve as benchmarks along a career pathway. For example, interim measures could be mid-term grades, retention indicators such as class attendance, employability or soft skills attainment, or attainment of a digital literacy or high school equivalency certificate. Interim measures are useful for making program adjustments and are motivational markers for the learner in achieving a long-term goal.

The team should assess the types of measurements used on a regular basis to ensure the team is measuring what it needs to know. System outcomes focus on the impact that the career pathways approach is having on the overall community, as well as on the citizens and/or partners engaged within the system. There are varieties of outcome measures that help teams analyze systemic impact. Outcome measures can relate the effectiveness of education and training programs and provide teams with data they can use to improve programs and assess the effectiveness of different strategies employed for target populations.
COMPONENT 6.2: Identify the Data Needed to Measure the System, Program, and Participant Outcomes.

Following the identification of long- and short-term system, program, and participant outcomes, the leadership team and other subgroups must define the actual data to measure and evaluate outcomes. Most career pathways systems involve the use of resources from various Federal and state funding streams so close attention should be given to the data collection requirements of the particular programs being evaluated.

Data collection involves a cross-agency integrated approach requiring data sharing and matching of the participant outcomes. WIOA has established a set of common metrics that apply to the WIOA core partner programs. The state may apply these measures to other additional partners without incorporating the programs into a combined plan. WIOA participant measures are listed in the Career Pathways FYI text boxes on this page.

The Alliance for Quality Career Pathways (AQCP), a project of the Center for Postsecondary and Economic Success at CLASP, has developed a framework for measuring career pathways innovation. The framework includes four components:

1. **Criteria** for high-quality systems and programs;
2. **Quality indicators** that signal how well the core elements of systems and programs support the achievement of desired participant outcomes;
3. **Interim participant outcome metrics** that mark progress toward achieving desired longer-term outcomes; and
4. **Performance outcome metrics** that are common across education, training, employment, and other public, private, and philanthropic systems involved in the career pathway system.
Career Pathways Should:

- Provide a cross-system view of results and support shared accountability and improvement among partners.
- Incorporate important interim program measures that demonstrate progress toward educational outcomes and employment outcomes.
- Focus on results for participants within specific career pathways, rather than institutional or organizational outcomes.

Career Pathways System, Program, and Participant Measures:

**SYSTEM MEASURES**
- Return on investment—overall cost of career pathways activities including increase in taxes paid due to employment and decrease in reliance on any form of public assistance;
- Increase in skills and credentials in the labor force;
- Increase in workforce participation rate;
- Employer engagement in career pathways system; and
- # of resources leveraged to sustain the system.

**PROGRAM MEASURERS**
- # of participants enrolled in program;
- # of participant completers;
- # of participants who receive some type of postsecondary credential;
- # of participants who receive some type of industry recognized-credential;
- # of participants entering employment;
- Employment retention rate;
- Earnings gain; and
- Employer engagement.

**PARTICIPANT MEASURES**
- Credit accumulation;
- License/certificate attainment/industry recognized credential;
- Degree attainment;
- Employment;
- Wage at initial employment;
- Employment retention rate;
- Employment progression along a career pathway; and
- Earnings progression.

**PROMISING PRACTICE: Measurement Matters—Report Cards in New Jersey**

New Jersey has a “consumer report card” website called New Jersey Training Opportunities that provides information on occupational training programs in the state. A results section displays information about former program participants. It shows employment rates, retention rates, and average earnings at six months, one year, and two years after graduation. New Jersey’s state laws require training programs at for-profit, public two-year, and some public four-year schools that receive state or Federal workforce funding to submit records to the state for all of their students, and recently required for-profit schools to submit student records and disseminate results through a state website.
COMPONENT 6.3: Implement a Process to Collect, Store, Track, Share, and Analyze Data.

Determining how to measure system, participant, and program outcomes will likely involve many different stakeholders. The leadership team will determine desired goals and outcomes for the initiative while considering the existing requirements of Federal, state, and local funders. The challenge to teams will be figuring out how to measure outcomes as painlessly as possible across systems, using existing reporting requirements when feasible.

Ultimately, the leadership team (with validation from local employers and potentially from funders) will agree on what data to collect to measure the desired outcomes. It is important that the measures and the data definitions are common across all partners participating in the career pathways system. By integrating data systems and sharing data, the leadership team can evaluate system as well as program impact over longer periods. The leadership team should gather multi-year (longitudinal) data on progress over as many years as necessary to follow an individual across programs. Data of this kind is essential for establishing public accountability for career pathways programs. It is also necessary for determining how to improve programs by identifying which activities provided the best outcomes over time.

PROMISING PRACTICE: Kentucky Statewide Longitudinal System

The Kentucky Center for Education and Workforce Statistics (KCEWS) collects and links data to evaluate education and workforce efforts in the Commonwealth. This includes developing reports and providing statistical data about these efforts so policy makers, agencies, and the general public can make better informed decisions. The KCEWS maintains the Kentucky Longitudinal Data System (KLDS), a statewide longitudinal data system, as well as responds to requests for data and information, and provides reports on a number of topical areas including feedback about the performance of high school graduates after they go to college, developing the Kentucky County Profiles, and information about the outcome of teacher preparation, college, adult education, and other programs. Two examples of KLDS activities include:

1) Linking high school and college data together to better understand how high school experiences affect college going and success; and

2) Linking education and employment records to know if Kentucky graduates are entering the workforce and earning a reasonable wage, how well colleges are meeting the needs of industries, and what the return on investment is for education and training programs.
Collecting, managing, and using data needs to be carefully coordinated across participating agencies and systems. The leadership team has the responsibility for establishing a data and evaluation plan that aligns with the desired outcomes and provides formative and summative information. The team may want to work with an outside evaluator to provide system-wide evaluation of the initiative. If the team members decide not to work with an outside source, they may want to identify a lead agency that can coordinate data measurement efforts across agencies. Sometimes different agencies collect different components of the data, so it is important to make sure all partners are clear about their roles and responsibilities in collecting data.

It is important to develop and document a formal agreement for the collection of data in a MOU. A MOU lists all partners who will be collecting data, the process for collecting data, and what each agency is collecting. Typically, each agency partner is responsible for collecting data for the individuals it serves within the programs that are part of the career pathways system. Data on individuals enrolled in the career pathways programs are marked in some fashion to ensure that the data is included in the overall data collected. Common demographic information for participants (such as age, gender, race, income level, highest school grade attended, justice involved status, disability status, public assistance status) is tracked across programs to determine system outcomes for various target populations.

Because participants involved in the career pathways system move through different points of entry; access different supportive services; and exit at different points in the career pathway; tracking long-term performance outcomes requires a well-planned systematic approach that all agencies agree upon. Currently most agencies only collect information on an individual’s progress through their own programs and services, and do not take into consideration what the individual achieves through participation with partner agencies. This makes some of the potential measurements, such as the number of individuals who transition from adult education to community colleges, difficult to capture. In addition, because an effective career pathways system allows individuals to move back and forth between education and employment over many years, evaluating the overall career pathways system, as well as some of the specific programs, requires coordination of data sources so that individual records can be tracked across programs over multiple years.

An ideal longitudinal data system tracks an individual from pre-kindergarten through postsecondary education and into the
workforce. Data covering this entire span allows each agency to determine how the services it provides to the individual will augment the services provided in prior years by previous agencies. An ideal system also has the ability to capture the progress of individuals moving in and out of training and work, as needed. A data system that is comprehensive, shared, and longitudinal helps agencies design better services and allows all the partner agencies to better align themselves to the goals of the career pathways system.

A shared database helps streamline data collection and analysis efforts. Frequently, a common database is not feasible due to cost constraints but it is important to design a method for extracting each of the multiple data sets from multiple data sources/systems for the information necessary to calculate and track the measures agreed upon. Aggregating data across agencies ensures that agency data from each aspect of the system contributes to the overall participant and system outcomes measures in order to assess the career pathways system.

Each state typically has its own data practice requirement along with the Federal data-sharing guidelines. Therefore, it is important for all partners to sign a data-sharing agreement. These agreements can specify the organizations/agencies sharing the data, the specific data sets shared, the purpose and use of the data, the length of time for access to the data, and the process in which the data will be shared/accessed. The agreement should also state the liable party for storing the data and granting access to the data.

Regular reviews of performance measures will ensure that agencies can make timely improvements to specific programs if necessary. Participant outcomes measure the ultimate success of the system when the participant enters employment with the skills/certificates/license required by employers at a family sustaining wage. Constant affirmation from employers is essential to keep the system demand-driven. The team should routinely celebrate the success of effective programs and services.

**CAREER PATHWAYS FYI: Performance Data**

Analysis of performance data will help determine whether individual programs are effective and whether progress is being made within the overall career pathways system.

It is equally important to assess unsuccessful program outcomes. Data-informed decision making and evaluation can help the system identify missing elements to the system that, if available, may have retained a participant along a career pathway. The leadership team can examine any unmet participant barriers, program deficiencies, and program relevancy to employer requirements. Data and information is essential to focus on key accountability issues in the box below:

**HOW TO: Questions to Ensure Program Accountability**

- Are the program and participant performance targets and goals being met?
- Are the results superior to traditional methods?
- Are agency (organization) partnerships strengthened or enhanced?
- Are career pathways components and design features being institutionalized and sustained as a result?
- Do business and industry partners value their involvement in the career pathways system and, as a result, realize skill level improvements of their job candidates?
- Are funds being used to maximize their efficiency and effectiveness. Or, is the ROI reasonable?

**Accountability is the key to sustaining a comprehensive career pathways system.**
COMPONENT 6.4: Design and Implement a Plan for Reporting System and Program Outcomes.

The measurement design process may include the development of a framework for measuring and understanding the net impact and ROI of the overall career pathways effort. An ROI framework should include a control group that compares program outcome participant data with subjects that did not participate in a career pathways program but have similar characteristics. Once the framework is established, the leadership team should have a strategy for communicating and disseminating the outcomes. The team should identify the various audiences for sharing summative data including state and local legislators, state and local policy makers, secondary and postsecondary educational institutions, employers, economic development organizations, potential program participants, and the news media. Reports generated for sharing ROI and program outcomes may include individual participant success stories. These compelling stories will provide a practical insight into the overall success of the career pathways initiative.

The graphic below provides an example of how to calculate ROI

ROI CALCULATION EXAMPLE

\[
\text{ROI} = \frac{\text{(BENEFITS} - \text{COSTS})}{\text{COSTS}}
\]

EXAMPLE BENEFITS:
- Change in:
  - Earnings
  - Fringe benefits
  - Taxes paid
  - Public assistance payments
  - Medical payments
  - Unemployment insurance payments
  - Incarceration expense
  - Worker productivity

EXAMPLE COSTS:
- Tuition
- Program operations
- Program administration
- Foregone earnings while in training
- Foregone taxes
- Other participant costs

http://www.gwdc.org/initiatives/roi/
ELEMENT SIX TOOLBOX

Team Tools
• Six Key Elements Readiness Assessment Tool (available in Section 2 of the Toolkit)

Reports and Publications
SECTION TWO
CAREER PATHWAYS
TOOLS AND RESOURCES
Career Pathways Tools

The tools included in this section support the framework of the Six Key Elements and may be helpful to leadership teams interested in fostering and developing career pathways systems. This is not an exhaustive list of the career pathways-related tools that are available to policy makers and stakeholders. USDOL/ETA plans to release a companion workbook that includes additional tools and resources to assist states and local partners in the work of developing, implementing, and sustaining career pathways systems and programs.

There are many other useful tools for educators, workforce professionals, human service agencies, policy leaders, and businesses that align with the Six Key Elements of the career pathways framework. USED/USHH and USDOL engaged in a joint venture to catalog tools that promote actionable instructions on how to turn a commitment to career pathways into a reality. One of the results of that effort is the Career Pathways Tools Catalog, available at the following website: https://cpToolkitcatalog.peerta.acf.hhs.gov/
Six Key Elements Readiness Assessment Tool

**Purpose:** The Six Key Elements Readiness Assessment Tool is aligned with Section One of the Toolkit to aid state or local teams in assessing their state/local career pathways initiative in relationship to the components of each element that make up an optimal career pathways system. The tool helps state/local leaders assess their progress and design priorities and action steps to progress to an optimal stage.

**Recommended User(s):** Optimally, the state or local leadership team should complete the assessment tool. Team members complete the assessment together during a team meeting. The team should identify a facilitator to guide the process as well as someone to record issues and ideas that come up through discussion.

**When to Use:** Complete the initial assessment as a baseline when career pathways initiative efforts begin. The organization of the assessment tool follows the Six Key Elements of Career Pathways Framework. Repeat the assessment periodically (at least annually) to assess progress and determine priorities in annual plans.

**How to Use:**

- Check the indicators for each component of the Six Key Elements.
- Select two to three components under each key element the team identifies as the strengths of the state/local career pathways system (rating functional or optimal).
- Select two to three components to prioritize under each key element that the team identifies as the opportunities to improve the state/local career pathways system (rating minimal or emerging).
- Discuss the responses and prioritize a list of opportunities to improve.
- Write an action plan listing the priorities, responsible party, and date to accomplish (see Action Planning tool).
- Periodically (annually) evaluate the system by revisiting the assessment tool and Action Planning tool to chart progress.
### Career Pathways: Six Key Elements Readiness Assessment Tool

**Optimal Alignment:** Leadership vision and strategy is operational. System focuses on targeted sector strategy, engages employers, and reflects clear pathways educational components. State-level policies support long-term sustainability with federal and/or state funding plans. Metrics and outcomes reflect evidence-based evaluation processes and continuous improvement.

**Functional Alignment:** Shared decision-making and accountability exist between state-level or local-level team members and defined roles exist in an MOU. Partners map and identify funding resources. Curricula design includes components/educational strategies of career pathways that align with industry needs. Team is identifying metrics and outcomes. State-level policy levers and opportunities are utilized.

**Emerging Alignment:** State- or local-level team agrees to adopt Federal framework for career pathways systems. The results of the readiness self-assessment instrument shapes the development of a strategic plan. A formal steering committee creates a vision with partner roles delineated. Senior-level government and business leaders engage to form a MOU. Labor market research is in place and targets industry sectors with some business engagement. State-level analysis is underway to determine if there are state-level policy barriers that exist.

**Minimal Alignment:** No cohesive, integrated strategy for career pathways exists. No formal team structure exists to coordinate efforts and align resources. Senior leader’s engagement is minimal. Business engagement and labor market research is minimal. No formal assessment of assets or system resources has been conducted.
## 1) Build cross-agency partnerships and clarify roles.

### A. WIOA Core Partners:
- Title I Adult, Youth, and Dislocated Workers
- Title II Adult Education and Literacy
- Title III Wagner-Peyser Act Employment Services
- Title IV Rehabilitation Act of 1973 Title I

### B. WIOA Additional Partners:
- Postsecondary Education
- State Human Services Agency (TANF)
- Supplemental Nutrition Assistance Program (SNAP)
- Supplemental Nutrition Assistance Program (SNAP Employment & Training)
- Trade Readjustment Assistance Program (Trade Act of 1974)
- Veterans Employment & Training
- Unemployment Compensation
- Older Worker Programs (Senior Community Service Program)
- HUD Employment & Training (Housing & Urban Development)
- Community Service Block Grant
- Second Chance Act of 2007 (ex-offenders)

### C. A leadership team (or steering committee) guides the process of developing career pathways systems.

### D. Partners create a shared vision, mission, goals, and strategies for state and local/regional career pathways systems.

### E. Defined roles and responsibilities of partners exist.

### F. An MOU exists governing the partnership.

### G. A work plan exists for the partnership.

## 2) Identify industry sectors and engage employers.

### A. Labor market analysis targets high-demand, and growing industries that support family sustaining wages.

### B. Industry leaders and sector partnerships engage in the development of the system.
### Design education and training programs.

<table>
<thead>
<tr>
<th></th>
<th>Minimal Align</th>
<th>Emerging Align</th>
<th>Functional Align</th>
<th>Optimal Align</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.</td>
<td>Clarify and define employers’ role in program development and operations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affirm the set of foundational academic, work readiness, and technical skills, abilities, and knowledge.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affirm the required certificates and credentials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Help design education and training programs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assist in instruction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide on-site training space.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide real equipment, supplies, or tools.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make real industry-based projects.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Co-invest resources in program development and/or implementation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Assist in developing certification/credentialing process.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide mentoring or work-based learning opportunities.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hire completers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>Identify existing training systems within industry and career ladders/lattices.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td>Identify the skill competencies and associated training needs needed in a given career ladder.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F.</td>
<td>Implement a process to sustain and grow business partnerships.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3) **Design education and training programs.**

<table>
<thead>
<tr>
<th></th>
<th>Minimal Align</th>
<th>Emerging Align</th>
<th>Functional Align</th>
<th>Optimal Align</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Identify potential “education, training, and service partners”, including secondary education.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td>Identify target populations, entry points, and recruitment strategies for target populations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>Review or modify competency models with employers to ensure they meet industry standards.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>Build career ladders and lattices with employers that lead to industry-recognized credentials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td>Modify existing program offerings to mirror competency models and career ladders/ lattices and meet industry recognized and/or postsecondary credentials.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minimal Align</td>
<td>Emerging Align</td>
<td>Functional Align</td>
<td>Optimal Align</td>
</tr>
<tr>
<td>---</td>
<td>---------------</td>
<td>----------------</td>
<td>-----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>F.</td>
<td>Analyze education and training institutions’ capacity to respond to industry demands (i.e., classrooms and lab space; educational staff; work-based learning sites, training spaces, and equipment/tools, materials/supplies; credentialed instructors; and technology, etc).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.</td>
<td>Design and promote work-based learning opportunities (e.g., workplace simulations, school-based enterprises, cooperative work and study programs, internships (paid or unpaid), on-the-job training (OJT), job shadowing, apprenticeships, fellowships, short-term employment, and other paid or unpaid work experiences).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H.</td>
<td>Design programs that apply integrated, accelerated, and contextualized strategies to build skills that are industry-recognized.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.</td>
<td>Consider credit for prior learning in all program design and allow participants to progress at their own pace along a career pathways program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J.</td>
<td>Embed academic content (e.g., reading, writing, mathematics) within curricula that is relevant to real workplace tasks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K.</td>
<td>Design curriculum to allow for multiple entry/exit points.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L.</td>
<td>Design self-paced curriculum to allow participants to progress based on their abilities and time commitment (e.g., class scheduling; e-learning; work-based learning; computer-based or web-based lessons).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.</td>
<td>Provide participants with appropriate financial aid information to include state grant programs, Federal financial aid, and program eligibility for special populations.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N.</td>
<td>Provide career assistance, assessment, and develop a student-specific academic plan (select a career pathway) and assist participant in navigating the system.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O.</td>
<td>Provide academic support, school adjustment and retention services to include tutors and ELL services.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.</td>
<td>Arrange for and select an organization to provide case management services.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 4) Identify funding needs and sources.

- **A.** Identify system start-up and maintenance cost and associated funding sources.
- **B.** Identify program development and maintenance cost and associated funding sources.
- **C.** Identify participant cost and associated funding sources.
  - Tuition, fees, books, and supplies *(training-related tools and equipment)*
  - Academic support and tutoring
  - Career counseling, advising, and planning
  - Case management and coaching *(including navigation of financial aid options and educational programs, and support services)*
  - Mentoring services for youth
  - Assessment services
  - Work experience and work-based learning opportunities.
  - Supportive services *(e.g., transportation, childcare, living expenses, etc.)*
- **D.** Explore and secure public or private sources *(student aid programs-Pell grants, Ability to Benefit grants and state grant programs; WIOA funding; employer-paid tuition reimbursement programs; and/or scholarships; WIOA Title I and IV, TANF, and TAA/TRA and SNAP/E&T)* to offset participant training fees and other direct customer costs.
- **E.** Identify and commit funds from partner agencies to apply to each of the core components of career pathways systems. Determine gap funding and seek other related public and private resources to fill the gaps.
<table>
<thead>
<tr>
<th>Tool/Program</th>
<th>Minimal Align</th>
<th>Emerging Align</th>
<th>Functional Align</th>
<th>Optimal Align</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOL WIOA Title IB: Youth, Adult, and Dislocated Workers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOL WIOA Title III: Employment Services (Wagner-Peyser).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOL Trade Adjustment Assistance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOL Registered Apprenticeship and Pre-Apprenticeship.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED WIOA Title II: Adult Education and Family Literacy Act.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED Carl D. Perkins Career and Technical Education.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED Pell Grants.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED WIOA Title IV: Vocational Rehabilitation Services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HHS Temporary Assistance for Needy Families (TANF).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USDA: Supplemental Nutrition Assistance Program Employment And Training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUD Employment &amp; Training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Change Act of 2007 (ex-offenders).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veterans Employment &amp; Training.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment Compensation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older Worker Programs (Senior Community Service Program).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Service Block Grant.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**F. Develop a business plan that documents revenue and expenses to continue the operation and improvement of the career pathways system for long-term sustainability.**

**5) Align administrative policies and programs.**

A. Identify state statutory and regulatory barriers to implementing a state or local career pathways system.

B. Reform state/local policy to align with vision and implementation of a coordinated system for youth and adults.

C. Align and braid funding for activities that support the state and/or local system.
<table>
<thead>
<tr>
<th>Minimal Align</th>
<th>Emerging Align</th>
<th>Functional Align</th>
<th>Optimal Align</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Develop policies and procedures that incentivize local/regional career pathways systems by awarding discretionary resources when available.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Build in career pathways strategies in your state and local unified/combined plan.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Address any statutory barrier issues with the Governor’s office and attempt to move changes forward through legislatures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Implement new policies and procedures and communicate across agencies.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 6) Measure system change and performance.

<table>
<thead>
<tr>
<th>Minimal Align</th>
<th>Emerging Align</th>
<th>Functional Align</th>
<th>Optimal Align</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Identify, develop, and define short-term and long-term system, program and participant outcomes not just categorical program outcomes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Designate in a MOU the data that agencies will collect, store, track, share, and report on.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Report career pathways program outcomes that reveal total resources leveraged and total aggregate impact on system (not simply categorical funding streams). Aggregate outcomes may include # of participants served; of those, # receiving postsecondary credentials, # entering employment including earnings received, # retained in employment; and employer engagement measures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Agree upon a process/methodology to report system return on investment (ROI) measures and consider measures as change in earnings, reduction in public assistance payments, taxes paid, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Communicate and disseminate outcomes as a system rather than an agency or program.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Next Steps Action Planning Tool

**Purpose:** This flexible action planning tool can help the team carry out prioritized action steps identified in the Six Key Elements Readiness Assessment Tool.

**Recommended User(s):** Members of the leadership team.

**When to Use:** Use to capture action steps prioritized in the Six Key Elements Readiness Assessment tool. The tool may be a stand-alone document for strategic planning. Regularly revisit and update based on the progress that occurs between planning meetings.

**How to Use:**
- Review and discuss the team’s key priorities. If the team has completed the Readiness Assessment Tool, they may use this to review priorities.
- List the prioritized activities or indicators in the “Objectives” column.
- Discuss and list the tactics or actions the team will conduct to implement each strategy in the “Tactics/Activities” column.
- Enter the name or initials of the person or persons (or organization) responsible in the “Lead” column.
- Discuss and enter the “expected outcomes” of the actions in the fourth column.
- Enter the timeline for each activity in the fifth column.
- Use the tool to track progress. Enter relevant updates and information about progress and any modifications in the “Progress & Adjustments” column.

**Links to Tool:**
1. Action Planning Tool with instructions [https://learnwork.workforce3one.org/view/2001120642119875739/info](https://learnwork.workforce3one.org/view/2001120642119875739/info)
### NEXT STEPS ACTION PLANNING TOOL

**KEY ELEMENT:**

<table>
<thead>
<tr>
<th>Priority Objectives</th>
<th>Tactics/Activities</th>
<th>Lead</th>
<th>Expected Outcomes</th>
<th>Due Date</th>
<th>Progress &amp; Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What we will do?</td>
<td>How we will do it?</td>
<td>Who is responsible?</td>
<td>What is the result?</td>
<td>When will we do it?</td>
<td>What have we accomplished?</td>
</tr>
</tbody>
</table>
Service Mapping Tool

Purpose: Community service mapping is a proven, non-threatening process for identifying each partner’s WIIFMs (What Is In It For Me)—the benefits that the organization or agency needs to accrue in order to make collaboration worthwhile. Team members leave the service mapping session with an understanding of partner services and activities; their targeted populations, goals, and objectives; and how they do business. The team member gains information of what skills and workforce development services are necessary within the community to serve the universal and targeted populations. They also learn how to analyze service gaps and duplication in services among participating organizations.

Recommended User(s): A representative from each partner agency providing services in the state/local area. Each representative knows the funding streams of their agency and the purpose and use of the funding.

When to Use: Conduct a service mapping session to gather the baseline data needed for carrying out a service gap analysis for the state/region. The team completes a service-mapping tool for support services and for workforce development services separately.

How to Use:

1. Complete the Agency Criteria Collection Form. Each agency representative completes this form prior to attending the meeting.

2. Identify services. The facilitator should review the list of services around which the partners will provide data.

3. Define services. Discuss and come to consensus on the definition of each service on which data is collected.

4. Review data. Review the data (and the definition of each) that will be collected for each service.

5. Complete the charts. Each partner then completes their personal charts as appropriate for each service:

   a. List funding sources: Each representative lists in the first column each funding source his or her agency receives that it uses to provide services (one per row). If the agency has more than two funding sources, the representative will need to have multiple sets of the form in order to complete one row for each funding source.

   b. Populations served:
      • Universal—Highlight universal if the funding source does not have any specific limitations on who may be served with the funds.
      • Targeted—Highlight if funding source limits service to specific groups or population(s) that the service is specifically designed to serve. Partners only make entries for targeted populations if the services are designed to exclusively serve one or more targeted populations with the funding source they are recording.

   c. How services are provided:
      • Self-service, staff assisted, or both – Highlight as appropriate.
      • Individualized, in groups or both – Highlight as appropriate.
      • Standalone – If the customer can receive the service without enrolling into a program or funding source, highlight “Stand Alone.” If the customer can receive the service once enrolled into a program or funding source, leave blank.
• Language – List in what language(s) other than English the service is offered.

• **Schedule:** Include information about when each service is available.
  - Days/hours per week: Enter the days and hours.
  - Walk-in or appointment – Highlight as appropriate.

• **Fee or free:** Highlight whether this service is free or has a fee.

• **Service area:** Enter the service area (zip code/neighborhood) where the service is offered. If the service is restricted to residents of a service area (zip code/neighborhood) list that in the Target box and highlight “Target” in the first box under the service.

6. **Complete forms:** Once the partners have completed their forms, take the first page from each partner and tape the pages on the wall in a column. Repeat with each page.

• Divide the group into teams (one team for each page column). Have each team review the highlights and determine the gaps, duplications, and augmentations by using the information below. Gaps are those services that are not being provided currently, or do not have enough provided to meet the current need. (Gaps would have no highlights for a column, or would have some highlights but only for targeted populations, with no agency providing for the general population).

• Duplications are those services for which availability exceeds need. (Duplications would have multiple funding sources/agencies highlighting a service and serving the same population or populations).

• Augmentations are those services that are being provided by multiple agencies in order to meet the current demand. (The group would see augmentations as services with multiple highlights for the same service, but provided to different populations, or provided at different times or within different zip codes or in different languages in order to meet community needs.)

7. **Determine gaps:** Discuss the gaps, duplications, and augmentations that are discovered and determine how the gaps and duplications will be addressed.

**Links to Tool:**

1. Service Mapping Tool with instructions [https://learnwork.workforce3one.org/view/2001126552554540652/info](https://learnwork.workforce3one.org/view/2001126552554540652/info)

2. Service Mapping Tool template [https://learnwork.workforce3one.org/view/2001126552554540652/info](https://learnwork.workforce3one.org/view/2001126552554540652/info)
## SERVICE MATRIX TEMPLATE PAGE 2

<table>
<thead>
<tr>
<th>Agency/ Funding Source</th>
<th>LABOR MARKET INFORMATION DISTRIBUTION - The process of gathering and disseminating information on current and future job opportunities, including current job openings, local businesses, career information, high demand occupations lists, UI rates, labor force characteristics, and employer information.</th>
<th>TRAINING PROVIDER INFORMATION DISTRIBUTION - The process of gathering and disseminating information on agencies that provide training, including their locations and contact information, costs/fee structures, entrance requirements, application processes, available financial aid opportunities, curriculum and current courses offered, and performance data.</th>
<th>SUPPORT SERVICE INFORMATION DISTRIBUTION - The process of gathering and disseminating information on vendors and providers of support services, including childcare, transportation, healthcare (medical, dental, vision and substance abuse assistance), legal, domestic violence, food, clothing, housing, or utilities, that are necessary to enable an individual to participate in career pathways services and/or to get and keep a job.</th>
<th>SUPPORT SERVICE INFORMATION DISTRIBUTION - The process of gathering and disseminating information on vendors and providers of support services, including childcare, transportation, healthcare (medical, dental, vision, and substance abuse assistance), legal, domestic violence, food, clothing, housing, or utilities, that are necessary to enable an individual to participate in career pathways services and/or to get and keep a job.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal</td>
<td>Target</td>
<td>Universal</td>
<td>Target</td>
<td>Universal</td>
</tr>
<tr>
<td>Self</td>
<td>Staff</td>
<td>Both</td>
<td>Self</td>
<td>Staff</td>
</tr>
<tr>
<td>Ind</td>
<td>Group</td>
<td>Both</td>
<td>Ind</td>
<td>Group</td>
</tr>
<tr>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
</tr>
<tr>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
</tr>
<tr>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
</tr>
<tr>
<td>Walk in</td>
<td>Appt</td>
<td>Both</td>
<td>Walk in</td>
<td>Appt</td>
</tr>
<tr>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Universal</th>
<th>Target</th>
<th>Universal</th>
<th>Target</th>
<th>Universal</th>
<th>Target</th>
<th>Universal</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
<td>tar:</td>
</tr>
<tr>
<td>Self</td>
<td>Staff</td>
<td>Both</td>
<td>Self</td>
<td>Staff</td>
<td>Both</td>
<td>Self</td>
<td>Staff</td>
</tr>
<tr>
<td>Ind</td>
<td>Group</td>
<td>Both</td>
<td>Ind</td>
<td>Group</td>
<td>Both</td>
<td>Ind</td>
<td>Group</td>
</tr>
<tr>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td>Stand Alone</td>
<td></td>
</tr>
<tr>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
<td>Lang:</td>
</tr>
<tr>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
<td>Days/Hrs:</td>
</tr>
<tr>
<td>Walk in</td>
<td>Appt</td>
<td>Both</td>
<td>Walk in</td>
<td>Appt</td>
<td>Both</td>
<td>Walk in</td>
<td>Appt</td>
</tr>
<tr>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
<td>Ser Area:</td>
</tr>
</tbody>
</table>
A Federal Funding Toolkit for State and Local/Regional Career Pathways Partnerships, Funding Options Worksheet

**Purpose:** CLASP’s career pathways funding Toolkit is designed is to help interagency state teams identify and use Federal resources to support career pathways models. The latest edition includes program profiles reflecting WIOA legislative and administrative changes to key Federal programs.

**Recommended User(s):** Members of the leadership team at the state or local level

**When to Use:** Periodically to identify and/or capture resources from Federal sources that the partnership has not leveraged.

**How to Use:**
- Review the key tasks for building career pathways in the funding options worksheet.
- Review the Federal program summaries and appendix on support services and complete the worksheet with specific information.
- Identify policy changes or actions needed to remove barriers to supporting career pathways or to encourage wider use of Federal resources to support these approaches.

**Link to Tool:** [http://www.clasp.org/documents/Toolkit-pdfs/worksheet.pdf](http://www.clasp.org/documents/Toolkit-pdfs/worksheet.pdf)
Sample Partner Agreements

Purpose: The purpose of a partner agreement (also known as a Memorandum of Understanding) is to outline the roles and responsibilities of each of the state/local players within the state/local career pathways system.

Recommended User(s): Partners committing resources in the form of time, money, personnel, etc. that have a stake in the state or local career pathways system.

When to Use: Initially when career pathways teams are established and agreements made pertaining to the roles and responsibilities of each partner. The partner agreement should be updated periodically, whenever roles and responsibilities change or new partners join the team. Financial agreements should always be in writing.

How to Use: Reference the link below to see a sample of a completed partner agreement. Typically, a partner agreement should include the following information. A state or local leadership team can use the sample and this outline to help develop their own partnership agreement.

I. Partner agency and corresponding funding sources
II. Partner agency and a list of their roles and responsibilities
III. Partner agencies’ joint responsibilities
IV. Intermediary, if agreed upon
V. Intermediary roles and responsibilities
VI. Resolution of Disagreement if present
VII. Amendment to agreement if changed
VIII. Duration of agreement
IX. Merger with previous agreements
X. Signature page

Link to Tool: https://learnwork.workforce3one.org/view/200126942046585407/info
Competency Model Clearinghouse

**Purpose:** To help business, educators, and workforce professionals identify the essential knowledge, skills, and abilities necessary to complete job tasks that are essential to an occupation within a business or industry sector. The competency model clearinghouse allows one to add to existing competency models already vetted with employers, to edit an existing model to account for changing industry requirements, or to delete a competency model that is no longer valid.

**Recommended User(s):** Businesses, educators, and workforce professionals

**When to Use:** Whenever a business, educator, and/or workforce professional explores the essential functions of a job and wishes to validate those functions against industry standards in order to develop training programs for a specific job or group of related jobs within an industry.

**How to Use:** The website provides step-by-step directions on how to build a competency model.

**Link to Tool:** http://www.careeronestop.org/competencymodel/
Career Pathways Resources

In addition to the tools referenced in Section 2.1, there are a variety of career pathways related resources available online. The following resources were identified as helpful by the developers of the Toolkit, Federal staff, and/or state and local partners who provided input into the Toolkit during its development. Each resource is categorized by type (e.g., report, webinar recording) and includes a brief description of the resource and a link to the website where the resource can be found.

Career Pathways Catalogs and Clearinghouses

Career Pathways Toolkit Catalog
U.S. Department of Health and Human Services, Administration for Children and families
https://cpToolkitcatalog.peerta.acf.hhs.gov/

The Departments of Education, Health and Human Services, and Labor engaged in a joint venture to catalog tools and Toolkits that promote actionable instructions on how to turn a commitment to career pathways into a reality. Toolkits were selected for this catalog because they provide clear action steps for starting a career pathways initiative and help different sectors—education, workforce, human services, industry, and policy—learn to communicate with each other about their resources and priorities.

CTE Clearinghouse: Business Partnerships and Community Involvement
Association for Career and Technical Education (ACTE).
https://www.acteonline.org/clearinghouse_partnerships/#VLLN6NLF-So

Through business and community partnerships, CTE programs help students prepare for the workforce and use their expertise to help the local community and those in need. The following resources include articles, policy papers and peer-reviewed research as well as electronic media on how to effectively partner with businesses and community organizations.

National Coalition of Certification Centers
http://www.nc3.net/

The National Coalition of Certification Centers (NC3) was established to address the need for strong industry partnerships with educational institutions in order to develop, implement, and sustain industry-recognized portable certifications that have strong validation and assessment standards. The NC3 provides comprehensive curriculum development and access to skill-standard certifications. Curriculum is developed collaboratively with industry experts and educators and the certifications validate skill sets required to meet performance standards.
**Reports and Publications**

**A Resource Guide to Engaging Employers**
Jobs for the Future, January 2015  

This resource guide presents working models of successful employer engagement and lessons for securing and sustaining partnerships with employers. It was written to help education and training providers fully realize the value of strategic, long-term, and intensive partnerships with employers. The resource leads readers through a continuum of activities supporting these partnerships, with each level involving deeper engagement and integration of employers into the work.

**Braided Funding Toolkit**
Jobs for the Future, 2014  
[http://application.jff.org/braided_funding_Toolkit/](http://application.jff.org/braided_funding_Toolkit/)

In Accelerating Opportunity, braided funding, the weaving together of various state, Federal, and private funding streams, along with funding strategies, is critical to implementing integrated career pathways. The Braided Funding Toolkit provides Accelerating Opportunity state teams and colleges with resources to identify the major Federal and state funding streams that may be available to support integrated career pathways and their students. The Toolkit, built in part from the Center for Law and Social Policy's Federal Funding for Integrated Service Delivery Toolkit, is designed to support state and college teams through the complex process of developing a comprehensive, sustainable funding model for integrated pathways.

**Career and Technical Programs of Study: A Design Framework**

This brief outlines the career and technical programs of study design framework developed by the Office of Career, Technical, and Adult Education in order to receive Perkins funds. The framework identifies a system of 10 components that, taken together, support the development and implementation of effective programs of study.

**Career Ladders for the Hard to Employ**
Commissioned by U.S. Department of Labor  

Based on the successful practices employed by a range of career pathways programs for low-skill, unemployed individuals, this presents a set of six principles that should be the basis for the development of any program intending to use career ladder strategies as a means of bringing hard-to-place individuals into the workforce and keeping them there.
Creating Career Pathways for Frontline Health Care Workers

Jobs for the Future, January 2011

An effective, efficient workforce is essential to addressing rising costs in the health care industry. Nevertheless, effective investments in career advancement for frontline health care workers are limited. Creating Career Pathways for Frontline Health Care Workers focuses on promising practices drawn from Jobs to Careers. At 17 sites around the country, the initiative explores new ways to help frontline health care workers get the skills they need to provide quality care and build a sustainable career. It helps health care providers improve the quality of patient care and health services by building the skills and careers of their frontline employees.

Effective Case Management: Key Elements and Practices from the Field


This issue brief provides examples of key elements and practices for effective case management in the workforce system. It provides examples of state and local tools, processes, and policies designed to create or improve case management. An annotated list of relevant case management resources is also included.

Employer Resource Networks - Uniting Businesses and Public Partners to Improve Job Retention and Advancement for Low-Wage Workers

http://www.mathematica-mpr.com/~media/publications/PDFs/labor/WIRED_brief1.pdf

This issue brief describes the Employer Resource Network (ERN), an innovative, employer-based model that pulls together a consortium of small- to mid-size businesses to provide job retention services, work supports, and training opportunities for entry-level employees, many of whom are receiving public assistance. ERNs also include strong partnerships with other service delivery systems and organizations such as social service agencies, workforce development agencies, chambers of commerce, and community and technical colleges. To date, this particular employer-based service model has been implemented at six sites within four counties in Michigan, involving 45 employers. The following description is intended to provide an overview of key features of the ERN model so that other employers and government agencies—most notably workforce development agencies—may consider whether and how ERNs or a similar approach might be used to develop new services or enhance existing ones in their own local communities.
The First Year of Accelerating Opportunity: Implementation Findings from the States and Colleges
Jobs for the Future, September 2014

Beginning in 2012, the Accelerating Opportunity initiative provided $1.6 million in grants to five states. The grants were to help community colleges create career pathways programs to enroll students with low basic skills into for-credit career and technical education courses to improve their educational and employment outcomes. A rigorous and comprehensive evaluation of Accelerating Opportunity includes a non-experimental impact study, an implementation study, and a cost-benefit analysis. This first report provides key findings on the pathways, students, resources, partnerships, culture shifts, and policy developments from the first year of implementation of the initiative.

Framework for Measuring Career Pathways Innovation
Center for Law and Social Policy (CLASP), February 2013

This working paper examines three elements of career pathways metrics development and provides an overview of what state and local/regional career pathways systems have done in relation to those elements.

Funding Career Pathways and Career Pathway Bridges: A Federal Policy Toolkit for States
Center for Law and Social Policy, February 2015

Earlier editions of this funding Toolkit were widely cited and used at the Federal, state, and local levels. This new edition includes revised program profiles reflecting the Workforce Innovation and Opportunity Act legislative and administrative changes to key Federal programs. Of all the elements of career pathways, support services are among the most important to student success; they are also the most difficult to fund. An updated appendix identifies 10 Federal funding sources that can be used to provide a wide range of support services for participants in career pathways.

Innovative Strategies for Increasing Self-Sufficiency Study
U.S. Department of Health and Human Services, Administration for Children and Families, April 2014

This summary is an easy-to-read overview of the Innovative Strategies for Increasing Self-Sufficiency project: a major national effort to evaluate the effectiveness of nine career pathways programs using an experimental design. The summary includes the framework for career pathways programming, the promise of these programs, and a list of the nine programs being evaluated in the study.
Leveraging Funding Opportunities for Disadvantaged Populations: Strategies and Sources
In this information and resources are provided that are intended to help strategic leaders in the workforce and career development fields—as well as their counterparts in education and social services—leverage funding to support the comprehensive needs of disadvantaged populations. Readers will find four key elements: strategies for leveraging funding to support services for disadvantaged populations; tips for locating funding and for navigating websites containing Federal grant information; an index of existing Federal grants relevant to agencies, organizations, and alliances providing services; and systems development to reach and support disadvantaged populations.

Jobs for the Future, August 2014
The Pathways to Prosperity Network includes eight state members—California, Georgia, Illinois, Massachusetts, Missouri, New York, Ohio, and Tennessee—doing significant work in creating career pathways in grades 9-14. Two more states, Arizona and Delaware, joined the Network in June 2014. This report is a letter to the field about what's been accomplished to date. As is often the case in such initiatives, the results thus far are due to a combination of good luck, good timing, deep knowledge of implementation, and a simple but urgent message and strategy. The unique stories of the developments in each state are included in this report, as well as observation and description of key aspects of this work across the states in the Network as a group.

Policy to Performance Toolkit
The Policy to Performance Toolkit is designed to provide state adult education staff and key stakeholders with guidance and tools to use in developing, implementing, and monitoring state policies and their associated practices that support effective state ABE to postsecondary transition systems. It is based on the processes and findings from the Policy to Performance project. The tools and practices utilized in the project were compiled into a comprehensive and interactive Toolkit that provides users with guidance and strategies for strengthening existing or developing new ABE state transition systems. The Policy to Performance Toolkit offers users downloadable resources and writable tools, as well as provides examples of how participating states applied the tools and processes discussed in the Toolkit.
Policy Meets Pathways: A State Policy Agenda for Transformational Change
Jobs for the Future, December 2014

Policy Meets Pathways: A State Policy Agenda for Transformational Change argues that campuses and states must do more than establish metrics for success, change transfer policies, provide better academic advising, and support pilots targeting specific student subgroups. Community colleges need to redesign pilot projects and ad hoc interventions into structured or guided pathways that reshape every step of the student experience. States need to redouble their efforts to modernize policies, and develop more effective approaches that support campuses and build capacity to strengthen implementation.

The Promise of Career Pathways Systems Change and Initiatives
Jobs for the Future, July 2012. Commissioned by the U.S. Department of Labor

This paper, written for the U.S. Department of Labor by Jobs for the Future, focuses on the various roles and actions that Workforce Investment Act (WIA) systems, including state and local Workforce Investment Boards, One-Stop Career Centers, and service providers, can undertake with other system partners in the development and implementation of successful career pathways systems.

Relationship Between WIOA Performance Measures and Alliance for Quality Career Pathways Metrics
Center for Law and Social Policy, January, 2015

This paper looks at the relationship between the WIOA performance measures and the metrics developed by the Alliance for Quality Career Pathways. WIOA includes common performance measures, or “primary indicators of performance,” for its six core programs (Title I Youth program, Title I Adult program, Title I Dislocated Worker program, Title II Adult Education and Family Literacy program, Title III Employment Service, and Title IV Rehabilitation Services program). While there are variations in the Title I Youth program and Title III Employment Service, most measures are consistent across all six programs. This is the broadest application to date of common measures across the workforce system; it signals Congressional intent to promote more integrated programming and accountability at the state and local levels.

Shared Accountability in WIOA and Career Pathways
Center for Law and Social Policy, December 2014

In order to broaden the discussion about “shared accountability” across various programs, this paper provides a working definition and outlines WIOA provisions that encourage greater integration of accountability policies. It also describes the policy components that comprise a performance management system. The paper then presents a proposed framework for how shared accountability could be implemented through these policy components; it includes six distinct levels of progressively greater policy integration. This framework is based on discussions that took place during the development of the Alliance for Quality Career Pathways (AQCP) participant metrics. Finally, the paper includes questions to guide further discussion of shared accountability.
Center for Law and Social Policy, June 2014

The AQCP 1.0 Framework is a concrete resource to assist with the Alliance’s goal and objectives. The framework includes three parts: a) definitions and a conceptual model, b) criteria and indicators for quality career pathways systems, and programs, and c) career pathways participant metrics.

State Sector Strategies Coming of Age: Implications for State Policy Makers
National Governor’s Association, January 2013

This paper offers a snapshot of sector strategies, an overview of what makes them different from traditional workforce and economic development programs, and a description of actions that state administrators and policymakers can take as part of a policy framework to support the strategies’ creation and effective operation.

Statewide Data as a Lever for Systems Change: Experiences and Lessons from Shifting Gears
The Joyce Foundation, September 2010
http://www.joycefdn.org/shifting-gears/reports/

As part of their work to make state education and skills development systems work better for low-skilled adults, states in the Shifting Gears initiative are using data to better understand and document low-skilled adult education and skills-development issues, and to help build awareness and support for improved public policies as well as institutional and systems change. This paper describes how each of the Shifting Gears states are using data to foster improvements in policy and practices and highlights the “lessons learned” from the work that has been done to date.

Strengthening State Systems for Adult Learners: An Evaluation of the First Five Years of Shifting Gears
The Joyce Foundation, December 2014
http://www.joycefdn.org/shifting-gears/reports/

An evaluation of five years of investments in six states to significantly increase the number of low skilled adults with the education and skills they need to succeed in the 21st century economy. The overarching evaluative questions answered by this report from the first five years of Shifting Gears are: 1) To what extent did states begin to adopt and implement an innovative strategy to improve transitions from adult basic education into community and technical colleges, including serving participants in these new ways? 2) What are the factors that influenced progress in the states to adopt and implement these innovative strategies during the initiative?
Using Dashboards for State Workforce Planning

National Skills Coalition, February 2015

This report explains how states can create dashboards to help state policymakers assess key outcomes across their state’s education and workforce programs, and in turn, set workforce policies that help residents get jobs while providing employers with skilled workers. A small handful of states have created highly functional, easily accessible, and comprehensible dashboards with rich content about a wide array of workforce and education programs and their outcomes. Drawing on the experience of some of these states, this report describes the steps that states can take to create dashboards, and how they can be used for state workforce planning and policymaking.

Using Pathway Evaluators for State Workforce Planning

National Skills Coalition, February 2015

This report explains how states can create and use “pathway evaluator” tools to better understand what pathways achieve the best labor market outcomes for which groups of people. The paper discusses the basic pieces of information necessary to create pathway evaluators, including: choosing populations of interest; defining cross-program participation; and identifying shared outcomes. It also describes the data systems required to create pathway evaluators and the policy issues that must be addressed to support such data systems. It explains how pathway evaluators can be used to inform career pathway policies and practices, providing examples from Washington State and Texas. While pathway evaluator findings thus far have mostly been presented in a static, report format, this paper describes the next generation of pathway evaluator tools that are web-based and interactive. This paper concludes with a list of considerations for policymakers and analysts who want to create pathway evaluator tools.
Relevant Federal Websites and Initiatives

Advancing CTE in State and Local Career Pathways Initiative


The Office of Career, Technical, and Adult Education (OCTAE) launched a three year project in October 2012 to advance career and technical education (CTE) in state and local career pathways systems, which are designed to prepare students to transition into careers and college. The initiative builds on the U.S. Department of Labor’s (DOL) Career Pathways Technical Assistance Initiative, and is designed to help states integrate CTE programs of study into broader career pathways system development efforts already underway. In January 2013, five states were selected for participation through a competitive process: Colorado, Kansas, Massachusetts, Minnesota, and Oregon. Each state team has a coach and subject matter experts available to help them develop and implement their action plan and achieve their goals. A contract was awarded to Jobs for the Future to lead the state coaches using key elements, strategies, and tools presented in the Career Pathways Toolkit: Six Key Elements for Success. The coaches and experts will adapt and augment the strategies in the Toolkit to meet the personalized needs of the states. The state teams will receive technical assistance through online and face-to-face meetings and by sharing information, resources, and ideas with other participating state teams via a web presence. In August 2013, the U.S. Department of Transportation (USDOT) invested funds to support activities that focus on Transportation Career Pathways.

Forging New Pathways: The Impact of the Breaking Through Initiative in Michigan

Jobs for the Future, November 2012

The Michigan Center for Student Success commissioned this study to determine whether strategies employed to improve adult students’ success at 41 Breaking Through colleges nationwide have taken root at Michigan’s original colleges and spread beyond them. A statewide survey revisited four of the colleges profiled in previous publications, and the research looked more closely at two additional colleges that have experimented with Breaking Through-type programs.

From the Ground Up: Creating Sustainable Partnerships between Public Housing Authorities and Workforce Investment Boards


This partnership encourages Public Housing Authorities (PHAs) to work collaboratively with Workforce Investment Boards (WIBs) and the American Job Center network (formally known as the One-Stop Career System or One-Stop locations) in identifying opportunities to train and place public housing residents into jobs created by PHAs’ capital improvement projects.
Joint Career Pathways Letter

U.S. Departments of Education, Labor, and Health and Human Services, April 2012

A joint letter from three Federal agencies committing to an ongoing partnership to build strong state and local career pathways systems.

Office of Apprenticeship

U.S. Department of Labor
http://www.doleta.gov/OA/

The U.S. Department of Labor’s Office of Apprenticeship offers employers in every industry the tools to develop a highly skilled workforce to help grow their business. For workers, the Office of Apprenticeship offers opportunities to earn a salary while learning the skills necessary to succeed in high-demand careers. The link includes more information for both employers and workers, as well as information about grant funding opportunities to support employers and workers.

Pathways for Youth Employment: Federal Resources for Employers

The White House, February 2015

This handbook outlines a number of Federal resources available to organizations that offer entry-level opportunities to young adults, including at-risk youth. Many of these resources are available to all employers, including private businesses, non-profits, faith and secular community-based organizations, public agencies, Indian tribes, labor organizations and academic institutions. Additional resources may be available on a state and regional level.

Statewide Longitudinal Data Systems (SLDS)

U.S. Department of Education, November 2005
http://www2.ed.gov/programs/slds/factsheet.html

The program provides grants to states to design, develop, and implement statewide P-20 longitudinal data systems to capture, analyze, and use student data from preschool to high school, college, and the workforce.

Workforce Data Quality Initiative

U.S. Department of Labor, 2010
http://www.doleta.gov/performance/workforcedatagrant09.cfm

In 2010, the U.S. Department of Labor (DOL) launched round one of WDQI to fund development of state workforce longitudinal databases—a joint undertaking with the U.S. Department of Education (ED) that will build on the Statewide Longitudinal Data Systems (SLDS) initiative that ED has underway—to encourage the development of state education and workforce longitudinal administrative databases. Collecting these and other data sources longitudinally will provide a comprehensive picture of workers’ earnings throughout their careers. Through analysis, these data will demonstrate the relationship between education and training programs, as well as the additional contribution of the provision of other employment services.
State and Local Program Profiles, Resources, and Tools

Career Clusters Guidance
Kansas State Department of Education, 2014

Career cluster pathways are designed to provide a smooth transition from postsecondary education (community colleges, technical colleges, and universities), apprenticeship opportunities, the military, and/or the workplace. Stakeholders from education, business, and industry developed the courses that enable the transition. Kansas has developed 36 pathways that address the needs for high skill, high wage, and high demand careers in the 21st century.

Career Pathways Roadmap Portfolio
Portland Community College
http://www.pcc.edu/career/pathways/RoadMapPortfolio.html

Roadmaps are user-friendly, visual representations of the interaction between educational programs, and labor market information that assist students with their career and educational decision-making. Common elements of roadmaps include skill set breakdowns, labor market forecasts, occupational information, and college courses associated with certificates, credentials, and degrees leading to employment in the particular field. Portland Community College in Oregon has assembled a variety of roadmaps for careers and educational programs in areas such as accounting, computer information systems, gerontology, and retail management.

Kentucky Center for Education and Workforce Statistics
http://kcews.ky.gov/

The Kentucky Center for Education and Workforce Statistics (KCEWS) collects and links data to evaluate education and workforce efforts in the Commonwealth. This includes developing reports and providing statistical data about these efforts so policymakers, agencies, and the general public can make better informed decisions.

Implementing the Colorado Blueprint through Regional Sector Partnerships
Collaborative Economics and the Woolsley Group on behalf of the Colorado Workforce Development Council, 2014
http://www.sectorssummit.com/Toolkit/

The Sectors Summit Toolkit has been assembled to help interested organizations and individuals implement sector partnerships. Inside the Toolkit users find a number of valuable resources, specially designed to support efforts to expand regional workforce, education and economic development partnerships with industry for Colorado.
Ohio Stackable Certificate: Models for Success
Community Research Partners, February 2008
http://www.workingpoorfamilies.org/pdfs/Ohio_Stackable.pdf

Based on the research findings, CRP developed a proposed framework for Ohio's system of stackable certificates that is most likely to produce success for adults, employers, and education programs. The framework, which builds upon and augments existing Ohio program models, is designed to deliver pre-college academics and for-credit job training to adults whose math, reading, writing, or language skills fall somewhere between a sixth grade level and a high school credential. These are the adults with the greatest barriers to moving to a level of the postsecondary education system where they can earn college credits.

Oregon Career Pathways Web Tool Open Source Mapping Software
The Oregon Department of Community Colleges and Workforce Development (USDOL/ETA)
http://oregon.ctepathways.org

USDOL/ETA (working in partnership with Oregon's 17 community colleges through the Oregon Pathways Alliance) developed the Career Pathways Roadmap Web Tool to provide visual maps using web technology for students and citizens to learn more about education, training, occupations, careers, and the labor market in Oregon. State agencies, educational institutions, and organizations are welcome to download the source code to develop a comparable Web Tool for the students and citizens in their state or region. The Web Tool was developed with funds from the US Department of Labor, Employment and Training Administration (USDOL/ETA) and the Oregon Community College.

Oregon Student Persistence and Completion Initiatives
http://ccwd.oregon.gov/studentsuccess/default.aspx

A graphic that describes Oregon's journey in implementing career pathways. It provides milestones and momentum points from pre-college courses to certificate degree completion. The website also lists links to 27 best practices from Oregon.

Self-sufficiency Calculator for Washington State
Workforce Development Council of Washington State, 2013
http://thecalculator.org/

The calculator measures how much income is needed for a family of a given composition—ranging from a one-person household to a large family—in a given place, to adequately meet its basic needs without any public or private assistance.

Smart Investments – Real Results: A Net Impact Evaluation of Minnesota's Workforce Development System and Initial Findings
Minnesota Department of Employment and Economic Development, January 2015
http://www.gwdc.org/initiatives/roi/

A net impact evaluation measures the outcomes of program participants compared against a control group of similar non-participants. It uses advanced statistical techniques to account for factors like participant demographics, work history, and local economic conditions, seeking to isolate the impact of the program itself.
Webinars and Training Videos

U.S. Department of Labor. Webinar held January 10, 2014
https://careerpathways.workforcegps.org/announcements/2015/02/18/12/22/Best_Practices_for_Career_Pathways_and_Credentials

States and local areas across the country are developing career pathways models to better align education and training programs with employer needs. This archived webinar highlights two of those models to provide specific “how to” information for others interested in developing career pathways initiatives.

Career Pathways Initiative: Building Cross-Agency Partnerships
https://www.workforce3one.org/view/5001104843457641130/info

This webinar provides an introduction of the elements of cross-agency partnerships, with highlights of three promising partnerships. For career pathways to succeed, multiple organizations must collaborate to support career entry and job advancement in the target sector. Career pathways partnerships often involve educational entities, workforce and economic development organizations, community organizations, and employers. While the composition and roles in an actual partnership will depend on the goals of the effort, the pre-existing relationships among the prospective partner organizations and the capacities and resources of each provide the building blocks of a career pathways system.

Dollars and Sense: Using Federal Resources to Fund Career Pathways and Bridges
Center for Law and Social Policy, November 2010

This webinar provides information about how interagency state teams can “braid” together Federal funds to create a customized career pathways funding strategy. Program directors talk about their state’s funding strategy and how they’re using career pathways to help low-skilled adults and youth attain postsecondary credentials and achieve economic mobility.

Train-the-Trainer at West-Mec, Phoenix, Arizona
National Center for Career Certification Centers, March 2015
https://www.youtube.com/watch?v=e_svey34dbg

A video created during a train-the-trainer session for college level instructors, which demonstrates the power and importance of creating stackable credentials for students with curriculum that is employer-vetted and approved by industry. The video was produced by the National Center for College and Career Transitions (NC3T).
Your Career, Your Future
Wisconsin Technical Colleges, 2013
https://www.youtube.com/watch?v=xNh26wXJySQ

A video prepared to aid students in selecting a career field that is in demand in their local labor market.
Career Pathways Glossary

**Ability to Benefit (ATB):** Students who lack a high school diploma or High School Equivalency certification can qualify for Pell Grants by demonstrating their capacity to succeed in a higher education program either through passing a government-approved test or through satisfactory completion of six credit hours towards a certificate of degree. For more info see: [http://www2.ed.gov/policy/highered/reg/hearulemaking/2009/atb.html](http://www2.ed.gov/policy/highered/reg/hearulemaking/2009/atb.html)

**Academic Credit:** The unit of measurement an institution awards when the determined course or subject requirement(s) is fulfilled.

**Accredited:** The goal of accreditation of educational programs is to ensure that the education provided by institutions of higher education meets acceptable levels of quality. The U.S. Department of Education maintains a website on “Accreditation in the United States” at [http://www2.ed.gov/admins/finaid/accred/index.html](http://www2.ed.gov/admins/finaid/accred/index.html) that provides lists of regional and national accrediting agencies recognized by the US Secretary of Education as reliable authorities concerning the quality of education or training offered by the institutions of higher education.

**Adult Basic Education (ABE):** Also referred to as ABS (Adult Basic Skills). Refers to pre-college, non-credit instruction in reading, writing, mathematics, and English language skills, to help adult learners obtain a High School Equivalency (HSE) credential or enroll in postsecondary education.

**Apprenticeship:** Apprenticeship is a combination of on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation. Apprenticeship programs can be sponsored by individual employers, joint employer and labor groups, and/or employer associations. The Department of Labor’s role is to safeguard the welfare of apprentices, ensure equality of access to apprenticeship programs, and provide integrated employment and training information to sponsors and the local employment and training community.

**Apprenticeship Certificate:** The Registered Apprenticeship system offers two types of credentials:

- Certificate of completion of an apprenticeship program; and
- Interim credentials.

The Apprenticeship Certificate means documentary evidence that the Office of Apprenticeship has approved a set of National Guidelines for Apprenticeship Standards developed by a national committee or organization, joint or unilateral, for policy or guideline use by local affiliates, as conforming to the standards of apprenticeship set forth in 29 CFR part 29.5: a registration agency has established that an individual is eligible for probationary employment as an apprentice under a registered apprenticeship program; a registration agency has registered an apprenticeship program as evidenced by a certificate of registration or other written indicia; a registration agency has determined that an apprentice has successfully meet the requirements and demonstrated the acceptable skill levels to receive an interim credential; or a registration agency has determined that an individual has successfully completed an apprenticeship.

**Assessment:** The use of standardized instruments, interviews, or other means to determine factors that may contribute to the success of students in career and technology programs. These factors may include interest, aptitude, academic achievement, work experience, learning style, work values, and other traits. Assessment may also be administered to determine progress attained by students during training or areas of need to address through remediation.
AA (Associate of Arts) Degree: The Associate of Arts degree normally requires at least two, but less than four, years of full-time equivalent college work and can be applied toward a Bachelor of Arts degree.

AAS (Associate of Applied Science) Degree: The AAS degree (with the occupational field specified) prepares an individual to enter skilled and/or paraprofessional occupations or to upgrade or stabilize their employment. Certain courses/certificates within the degree or the entire AAS degree apply towards a baccalaureate degree at some four-year institutions.

AS (Associate of Science) Degrees: The Associate of Science Degree normally requires at least two, but less than four, years of full-time equivalent college work and can be applied toward a Bachelor of Science Degree.

Basic Skills: Basic academic and tutorial services designed to increase literacy levels, upgrade literacy, and improve listening and speaking skills.

Braided Funding: Braided funding is a funding and resource allocation strategy that taps into existing categorical funding streams and uses them to support unified initiatives in as flexible and integrated a manner as possible. Braided funding streams remain visible to program operators but invisible to the participants benefiting. Braided funding maximizes the strengths of each partner and builds an overall more effective system. Each public funder maintains responsibility for tracking and accountability of its funds.

Bridge Programs: Programs designed for individuals whose skills do not meet minimum requirements for degree certificate programs. Bridge programs allow learners to start from their current skill level and develop the basic skills they need to begin the training program that is their ultimate goal. Pre-college “bridge” programs provide low-skilled adults with “on-ramps” (entry points) to postsecondary education and training. These are generally accelerated or contextualized programs that integrate adult basic education (including, as appropriate, English language learners) with occupational skills training and result in credit-bearing certificates and degrees that are valued by employers and can be applied toward additional education or training.

Career Academies: Operating as schools within schools, career academies are small learning communities, which are organized around such themes as health, business and finance, computer technology, and the like. Academy students take classes together, remain with the same group of teachers over time, follow a curriculum that includes both academic and career-oriented courses, and participate in work internships and other career-related experiences outside the classroom. Over time, improving the rigor of academic and career-related curriculum has become an increasingly prominent part of the career academies agenda.

Career Awareness: Activities designed to help students understand the role of work, one’s own uniqueness, and basic knowledge about different occupations.

Career Technical Education (CTE): Career and technical education is a term applied to schools, institutions, and educational programs that specialize in career-focused programs that prepare students both for college and careers. Career and technical education programs offer both academic and career-oriented courses, and many provide students with the opportunity to gain work experience through work-based learning, such as internships, on-the-job training, and industry-certification opportunities. Career and technical education programs provide a wide range of learning experiences spanning many different career fields and industry sectors. Career and technical education may be offered in middle schools, high schools, vocational-technical schools, or through community colleges and other postsecondary institutions and certification programs.
Career Clusters: A group of occupations and broad industries based on common knowledge and skills.

Career Interest Inventory: Carefully constructed questionnaires that enable an individual to identify preferred activities that are then correlated to career clusters.

Career Ladder/Career Lattices: Career ladders and lattices consist of a group of related jobs that make up a career. They often include a pictorial representation of job progression in a career, as well as detailed descriptions of the jobs and the experiences that facilitate movement between jobs. Career ladder/lattices are not necessarily organization-specific; they frequently span multiple organizations because movement within one organization may not be possible. Career ladders display only vertical movement between jobs. In contrast, career lattices contain both vertical and lateral movement, and may reflect more closely the career paths of today’s work environment.

Career Pathways: The term “career pathway” means a combination of rigorous and high-quality education, training, and other services that:

- Aligns with the skill needs of industries in the economy of the state or regional economy involved;
- Prepares an individual to be successful in any of a full range of secondary or postsecondary education options, including registered apprenticeships;
- Includes counseling to support an individual in achieving the individual’s education and career goals;
- 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;
- 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;
- Enables an individual to attain a secondary school diploma or its recognized equivalent and at least one recognized postsecondary credential; and
- Helps an individual enter or advance within a specific occupation or occupational cluster.

Carl D. Perkins Career and Technical Education Act of 2006: Federal legislation approved in 2006 with the purpose to more fully develop the academic, career, and technical skills of secondary and postsecondary education students who elect to enroll in career and technical education programs. Perkins funds provide limited resources for the development, improvement, and operation of CTE programs. For more information see: http://www2.ed.gov/policy/sectech/leg/perkins/index.html

Case Management: Case Management is the responsibility for directing and managing a student’s participation in the program, which typically includes non-instructional activities such as recruitment, retention, program component navigation, life skill or life issue assistance, academic, career or personal counseling, financial aid guidance, and other supportive services.

Certificate: A formal award certifying the satisfactory completion of a postsecondary education program.

Certification/Personnel Certification: A certification indicates that the individual has acquired the necessary knowledge, skills, and sometimes personal attributes (based on a formal study) to perform a specific occupation or skill. The certification process is based on a formal study...
that has validated the necessary knowledge, skills, and sometimes personal attributes that have been assessed (through examinations that have been determined to be fair, valid, and reliable) and affirmed (re-certification) at a designated interval. The certificate that is given is owned by the certification body and can be taken away from the certified person for reasons of unethical behavior or incompetence after an appropriate process.

“Chunked” Curriculum: Also referred to as modularized curriculum. Curriculum that is divided into more manageable “chunks” or modules with the purpose of improving degree completion rates among non-traditional learners. Generally, each chunk leads to employment and connects to the next chunk, eventually leading to completion of an industry-recognized professional-technical degree. Chunking is one element in a comprehensive career pathways system.

Core Academic Subjects: The term core academic subjects means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

Competency-based Curriculum: A program of study based on competency models that identify the knowledge, skills, and abilities necessary to successfully perform critical work functions in an industry or occupation.

Contextualized Instruction: Instruction that embeds traditional academic content (e.g., reading, writing, mathematics) within content that is meaningful to students’ daily lives and/or interests. Information is usually related to general workplace skills or a specific field or trade.

Credentials: There are many different types of credentials offered or awarded by various types of organizations. Within the context of education, workforce development, and employment and training for the labor market, the term credential refers to a verification of qualification or competence issued to an individual by a third party with the relevant authority or jurisdiction to issue such credentials (such as an accredited educational institution, an industry-recognized association, or an occupational association or professional society).

The range of different types of credentials includes:

• Educational diplomas, certificates, and degrees;
• Registered apprenticeship certificates;
• Occupational licenses (typically awarded by state government agencies);
• Personnel certifications from industry or professional associations; and
• Other skill certificates for specific skill sets or competencies within one or more industries or occupations (e.g., writing, leadership, etc.).

Some of these credentials are further defined and described in this glossary.

Credit for Prior Learning or Work Experience: Another type of assistance that the workforce system can leverage to help individuals attain credentials is to explore all avenues to help them attain credit for prior learning and work experience. Gaining postsecondary educational credit for prior learning or experience can help individuals earn credentials more quickly and can reduce total tuition or training costs since an individual may not be required to take certain courses. The Council on Adult and Experiential Learning (CAEL) catalogs an array of technical assistance on prior learning assessment resources to support the granting of credit for prior learning or work experience.
**Credit Hours:** Credit hours are the building block components of educational credentials (diploma, certificate, and degree).

**CTE Program Advisory Committee:** A CTE program advisory committee is a group of individuals whose experience and abilities represent a cross section of a particular occupational area. The primary purpose of the CTE program advisory committee is to assist educators in establishing, operating, and evaluating the CTE program—which serves the needs of the students, the community, and the business/industry partners—and to provide expertise and insight about current/future industry and technological changes.

**Curriculum Mapping:** Aligning or “mapping” curriculum to standards to ensure all students arrive at the final destination: mastery of core knowledge.

**Customized Training:** designed to meet the special requirements of an employer or group of employers, conducted with a commitment by the employer to employ all individuals upon successful completion of training. The employer must pay for a significant share of the cost of the training.

**Degree:** An award conferred by a college, university, or other postsecondary education institution as official recognition of the successful completion of a program of study.

**Dual Enrollment/Dual Credit:** Postsecondary enrollment option that allows secondary students to enroll in courses at institutions of higher education. The intent of the program is two-fold: (1) to provide students with opportunities for additional academic challenges and rigor, and (2) to offer an alternative educational setting, which may stimulate interest and motivation in learning.

**English Language Acquisition Program:** Designed to help eligible individuals who are English language learners achieve competence in reading, writing, speaking, and comprehension of the English language; and that leads to attainment of a secondary school diploma or its recognized equivalent; and transition to postsecondary education and training or employment.

**English Language Learner:** An individual whose national language is a language other than English, or who lives in a family or community environment where a language other than English is the dominant language.

**Fast-Track Programs:** Fast-Track programs are accelerated programs that allow non-traditional learners to pace themselves according to their time availability and skill level. Fast-Track programs are designed to learn basic skills like literacy and math in the context of their career interest, making learning more relevant. Fast-Track programs are paced to meet the time commitments of non-traditional learners and may be offered on different schedules than conventional courses, thereby addressing their barriers to attending traditional course schedules. The goal of any Fast-Track program is for the learner to obtain some type of industry-recognized credential.

**Faculty:** Faculty includes the professors, teachers, and lecturers of a university or college. Generally, the faculty is responsible for designing and disseminating the plans of study offered by the institution. The term is also used at the secondary system.

**High-demand Occupations:** Occupations having more than the median number of total (growth plus replacement) openings for statewide or a particular region.

**High School Diploma or Recognized Equivalent:** A document certifying the successful completion of a prescribed secondary school program of studies, or the attainment of satisfactory scores on state specified examinations.
High-skill Occupations: Occupations requiring postsecondary training or higher. Also occupations requiring long-term on-the-job training or related work experience.

Individual with a Disability: An individual with a disability is a person who has:

- A physical or mental impairment that substantially limits one or more major life activities; and
- A record of such an impairment; and
- Is regarded as having such an impairment.

Industry Clusters: Geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region.

Industry Competency Model: A collection of competencies (knowledge coupled with skilled tasks) that together define successful performance in a particular job family. Competency models designate the industry requirements that are essential components to designing training curriculum.

Industry Sectors: Refers to industries organized according to the Standard Industrial Classification (SIC) codes or North American Industry Classification System (NAICS) classification schemes.

Industry or Sector Partnership: A workforce collaborative convened by or acting in partnership with a state board or local board that:

- Organizes key stakeholders in an industry cluster into a working group that focuses on the shared goals and human resources needs of the industry cluster and that includes, at the appropriate stage of development of the partnership, a broad base of representatives including businesses, institutions of higher education, representatives of government, workforce agencies, labor organizations, and workforce boards.
- May also include representatives of state or local government; state or local boards, state or local economic development agencies, state workforce agency other state or local agencies, business or trade associations, economic development organizations, nonprofit organizations, community-based organizations, philanthropic organizations, and industry associations.

Industry-recognized Credentials: An industry-recognized credential is one that either is developed and offered by, or endorsed by a nationally recognized industry association or organization representing a sizeable portion of the industry sector, or a credential that is sought or accepted by companies within the industry sector for purposes of hiring or recruitment, which may include credentials from vendors of certain products. Consumer should be aware that in some industry sectors there may be more than one major industry association and that they may endorse or promote different credentials, and that the credentials that are sought by individual companies in an industry can vary by geographic region, by company size, or based on what product or equipment the company uses and needs workers to be able to operate. This is merely to point out that there may not be a single readily identifiable national credential for all industry sectors or occupations.

Industry-Skill Standards: The knowledge and skills needed for employment at various levels within specific industries. Industry employers or boards usually identify and define these skills.

Integrated Resource Team (IRT) Model: Brings together relevant public and private service agencies on behalf of the customer to coordinate services and resources in a comprehensive manner.
Internships: A temporary employment opportunity in which an individual can acquire experience in an occupation, profession, or pursuit. These positions may be paid or unpaid and are usually temporary and employment at the completion of an internship is not guaranteed.

Job Readiness Skills: Also referred to as soft skills, employability skills, or work readiness skills. Job readiness skills are a set of skills and behaviors that are necessary for any job such as, social competence, job-seeking, and interview skills, etc.

Job Shadowing: A career awareness/exploration opportunity in which a student observes or “shadows” a worker for a designated period of time to learn about that worker’s career.

License/Occupational License: An occupational license is typically granted by a Federal, state, or local government agency, is mandatory in the relevant jurisdiction, is intended to set professional standards and ensure safety and quality of work, is required in addition to other credentials, is defined by laws and regulations, and is time-limited. Violation of the terms of the license can result in legal action.

Literacy: An individual’s ability to read, write, and speak in English; compute; and solve problems at levels of proficiency necessary to function on the job, in the family, and in society.

Location Quotient: The relative concentration of employment in an area compared to a larger area (state versus nation).

Mentoring: A more complex relationship between an individual and an experienced employee. The mentor observes the mentee’s performance and will routinely comment on it and make suggestions, teach, coach, or give constructive feedback.

On-the-Job Training: Training by an employer that is provided to a paid participant while engaged in productive work in a job that—

- Provides knowledge or skills essential to the full and adequate performance of the job; is made available through a program that provides reimbursement to the employer of up to 50 percent of the wage rate of the participant, except as provided in section 134(c)(3)(H), for the extraordinary costs of providing the training and additional supervision related to the training; and
- Is limited in duration as appropriate to the occupation for which the participant is being trained, taking into account the content of the training, the prior work experience of the participant, and the service strategy of the participant, as appropriate.

Occupational License: An occupational license is typically granted by Federal, state, or local government agencies; mandatory in the relevant jurisdiction; intended to set professional standards and ensure safety and quality of work, such as medical licenses for doctors; required in addition to other credentials (educational awards, apprenticeship, or certification); defined by laws and regulations; time-limited (must be renewed based on meeting on going requirements to maintain license); and violation of the terms of the license can result in legal action.

Portable Credential: A credential is considered portable when it is recognized and accepted as verifying the qualifications of an individual in other settings - either in other geographic areas, at other educational institutions, or by other industries or employing companies.
Program of Study: Incorporates secondary and postsecondary elements; includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical contents in a coordinated, non-duplicative progression of courses that align secondary to postsecondary education; may include opportunity for secondary education students to gain postsecondary education credits through dual or concurrent enrollment programs or other means; and leads to an industry-recognized credential or certificate at the postsecondary level or an associate or baccalaureate degree. See http://cte.ed.gov/initiatives/programs-of-study

Progressive and Modularized: The education/training program is structured so that each course builds upon the next, with individuals moving through competency sets, building and attaining new skills as they go. Modules are taught in manageable “chunks” so individuals with varying levels of proficiency can accomplish them. A chunked curriculum is one that has been broken down into smaller units, each of which is stackable and linked to other modules in a series that culminates in an industry-recognized credential.

Recognized Postsecondary Credential: A credential consisting of an industry-recognized certificate or certification, a certificate of completion of an apprenticeship, a license recognized by the state involved or Federal government, or an associate or baccalaureate degree.

Return on Investment (ROI): As it relates to career pathways, ROI is a measure of the net economic impact of an employment and training program. The ROI considers all the costs associated with design and implementation of the career pathway program, including costs to the participant, and compares the sum of those costs to the economic benefits achieved by all participants upon exiting the program and/or over time.

Sector Strategies: Regional, industry-focused approaches to workforce and economic development that improve access to good jobs and increase job quality in ways that strengthen an industry’s workforce. Although not a new approach, it is gaining national momentum as a proven framework for addressing skill gaps and engaging industry in education and training. The new Workforce Innovation and Opportunity Act (WIOA) makes significant changes to the nation’s workforce development system, expressly incorporating the sector strategies approach throughout and requiring regional planning and alignment with local labor market needs for in-demand sectors and occupations.

Supplemental Nutrition Assistance Program (SNAP): To help recipients meet work requirements, and to gain the skills, training, or experience to increase their ability to obtain regular employment. The program is administered on the Federal level by the U.S. Department of Agriculture’s Food and Nutrition Service (FNS).

Supportive Services: Services such as transportation, childcare, dependent care, housing, and needs-related payments, which are necessary to enable an individual to participate in activities authorized under WIOA.

Stackable Credential: A credential is considered stackable when it is part of a sequence of credentials that can be accumulated over time to build up an individual’s qualifications and help them to move along a career pathway or up a career ladder to different and potentially higher-paying jobs. For example, one can stack a high school diploma, an associate’s degree, and then typically obtain two more years of appropriate postsecondary education to obtain a bachelor’s degree. An individual can also stack an interim career/work readiness or pre-apprenticeship certificate, then complete an apprenticeship, and later earn a degree or advanced certification.
Stakeholders: Individuals, groups, or organizations that have a stake in the outcomes of preK-16 education. This includes, for example, students, parents, employers, economic and workforce success, society in general.

Temporary Assistance for Needy Families (TANF): The Temporary Assistance for Needy Families (TANF) program is designed to help needy families achieve self-sufficiency. States receive block grants to design and operate programs that accomplish one of the purposes of the TANF program. The Act provides temporary financial assistance while aiming to get people off that assistance, primarily through employment.

Ticket to Work Program: Is a free and voluntary program that can help Social Security beneficiaries go to work, get a good job that may lead to a career, and become financially independent, all while they keep their Medicare or Medicaid. Individuals who receive Social Security benefits because of a disability and are age 18 through 64 may qualify for the program.

Transcript: The official school record of a student’s performance showing all course work completed, including course titles, course hours, grades or other evaluations earned, and grading scale.

Transitional Jobs: Time-limited jobs that are work experiences that are subsidized for individuals with barriers to employment who are chronically unemployed or have an inconsistent work history. These jobs may be in the public, private, or non-profit sectors.

U.S. Department of Labor (USDOL) Employment and Training Administration (ETA): The mission of the Employment and Training Administration is to contribute to the more efficient functioning of the U.S. labor market by providing high quality job training, employment, labor market information, and income maintenance services primarily through state and local workforce development systems. USDOL/ETA provides formula grants to states and tribes to carry out the mandates in the Workforce Innovation and Opportunity Act. It also solicits applications and awards competitive grants to eligible states, localities, and tribes to innovate and improve outcomes for participants. ETA provides policy, guidance, and oversight of the workforce system from the Federal perspective.

Work-based Learning: Work-based learning enables participants to gain or enhance their skills while employed or while engaged in an experience that is similar to employment. Examples: workplace simulations, career academies, school-based enterprises, cooperative work and study programs, on-the-job-training, incumbent worker training, job shadowing, pre-apprenticeship, apprenticeships, fellowships, and paid or unpaid work experience.

Workforce Development Board: An oversight board responsible for overseeing WIOA core programs including the development of a state plan. The membership of the board is appointed by the Governor with the majority being business representatives and the remaining representing diverse interests to include: state legislators, leadership of core programs under WIOA, representatives of community-based organizations that deliver employment and training programs and serve populations with barriers to employment, and economic development organizations.

Workforce Innovation and Opportunity Act (WIOA): The Federal statute that establishes Federal policy direction and appropriates Federal funds for employment and training programs. WIOA is designed to help job seekers access employment, education, training, and support services to succeed in the labor market and to match employers with the skilled workers they need to compete in the global economy. WIOA was signed into law on July 22, 2014. WIOA brings together, in strategic coordination, the core programs of Federal investment in skill development:
• Employment and training services for adults, dislocated workers, and youth and Wagner-Peyser employment services administered by the Department of Labor (DOL) through formula grants to states; and

• Adult education and literacy programs and vocational rehabilitation state grant programs that assist individuals with disabilities in obtaining employment administered by the Department of Education (ED).

WIOA also authorizes programs for specific vulnerable populations, including the Job Corps, YouthBuild, Indian and Native Americans, and Migrant and Seasonal Farmworker programs as well as evaluation and multistate projects administered by DOL. In addition, WIOA authorizes other programs administered by ED and the Department of Health and Human Services. WIOA replaces the Workforce Investment Act of 1998 and retains and amends the Adult Education and Family Literacy Act, the Wagner-Peyser Act, and the Rehabilitation Act of 1973.

**Workforce-Readiness Standards:** Guidelines for the skills needed to be successful in the workplace. This includes basic workplace skills such as workplace norms, communication skills, technology skills, and the ability to learn on the job.

**Workforce Recruitment Program (WRP):** A recruitment and referral program that connects Federal and private sector employers nationwide with highly motivated college students and recent graduates with disabilities who are eager to prove their abilities in the workplace.
Bibliography


SECTION THREE
CAREER PATHWAYS REFERENCES

Retrieved from: http://www.cael.org/pdfs/buildingblocksforbuildingskills


Six Key Elements Readiness Assessment Tool. https://learnwork.workforce3one.org/view/2001120642516555109/info

Six Key Elements Graphic Framework: https://learnwork.workforce3one.org/view/2001120641504542734/info


ACKNOWLEDGEMENTS

The Aspen Institute prepared this report using federal funds under award 99-07-13887 from the Economic Development Administration, US Department of Commerce. The grant award supported the implementation of the Communities that Work Partnership, which also received important matching support from the Charles Stewart Mott Foundation and additional support from the Joyce Foundation. The authors are grateful to the Department of Commerce, the Charles Stewart Mott Foundation, and the Joyce Foundation for their support. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the Charles Stewart Mott Foundation, the Joyce Foundation, the Economic Development Administration, the US Department of Commerce, or any other individual or organization.

The authors would like to thank the many individuals who collaborated on the work that made this publication possible. Researchers include Brian Bosworth, Sheila Maguire, Dee Wallace, Jaime Fall, Vickie Choitz, Ranita Jain, Marcela Montes, Amanda Newman, John Colborn, Bill Browning, and Cathy Katona. Aspen Institute communication staff include Colleen Cunningham, Claire Daviss, and Tony Mastria. This publication draws on the experiences of leaders representing workforce and economic development organizations, government agencies, nonprofit organizations, and businesses in the seven Communities that Work Partnership regions. We greatly appreciate their thoughtful input and openness to learning and sharing about their work.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>4</td>
</tr>
<tr>
<td>The Changing World of Work</td>
<td>5</td>
</tr>
<tr>
<td>Disconnected Islands of Excellence Are Not Enough</td>
<td>7</td>
</tr>
<tr>
<td>The Playbook</td>
<td>8</td>
</tr>
<tr>
<td>Playbook Guide</td>
<td>11</td>
</tr>
<tr>
<td><strong>Section 1: Building Partnerships</strong></td>
<td>12</td>
</tr>
<tr>
<td>Play: Small, But Mighty: Engage the Most Motivated Stakeholders First</td>
<td>13</td>
</tr>
<tr>
<td>to Start Fast</td>
<td></td>
</tr>
<tr>
<td>Play: Use What Is Working Now to Build Momentum and Show Your</td>
<td>17</td>
</tr>
<tr>
<td>Community Potential Outcomes</td>
<td></td>
</tr>
<tr>
<td>Play: Plan for Sustainability <em>From the Beginning.</em></td>
<td>20</td>
</tr>
<tr>
<td><strong>Section 2: Beyond LMI: Collecting New Data</strong></td>
<td>23</td>
</tr>
<tr>
<td>Play: Useful Labor Market Data Analysis Requires Local Employer Input.</td>
<td>24</td>
</tr>
<tr>
<td>Play: Include Local Workers’ Perspectives in Data-Gathering Efforts</td>
<td>27</td>
</tr>
<tr>
<td>to Inform Workforce Development Strategies</td>
<td></td>
</tr>
<tr>
<td><strong>Section 3: Business Engagement and Skills Development:</strong></td>
<td>30</td>
</tr>
<tr>
<td><em>Balancing Customization and Standardization</em></td>
<td></td>
</tr>
<tr>
<td>Play: Use Workforce “Prototyping” as a Key Strategy in Workforce</td>
<td>31</td>
</tr>
<tr>
<td>Development to Speed Up Learning and then Scale Solutions</td>
<td></td>
</tr>
<tr>
<td>Play: Five Questions to Address Before Developing a New Credential</td>
<td>35</td>
</tr>
<tr>
<td><strong>Section 4: Beyond Job-Specific Skills: Additional Strategies</strong></td>
<td>40</td>
</tr>
<tr>
<td>for Improving the Talent Pipeline</td>
<td></td>
</tr>
<tr>
<td>Play: Human Service Strategies May Be Key to Unlocking Untapped Talent</td>
<td>41</td>
</tr>
<tr>
<td>Play: Navigating Today’s Labor Market: Equipping Workers</td>
<td>44</td>
</tr>
<tr>
<td>to Manage Their Work Lives in a Changing World of Work</td>
<td></td>
</tr>
<tr>
<td><strong>Final Thoughts</strong></td>
<td>48</td>
</tr>
</tbody>
</table>
INTRODUCTION

There is growing conviction that new ways of developing skills, expanding access to jobs, and encouraging the creation of quality jobs are crucial to an economy that works for everyone, including businesses, workers, and communities. That is what the Aspen Institute and FutureWorks researchers heard from seven regional teams, part of the Communities that Work Partnership (CTWP), which is at the forefront of working across workforce development, education, economic development, and business boundaries to create new talent development approaches. These teams’ efforts – some spanning years, others more recent – are exploring how regions can overcome siloed programs and disjointed efforts to develop strategies that increase the skills and earnings of workers and meet the needs of businesses.

In almost every community, in every region across the United States, people are working to build a more talented, skilled workforce. Examples of these efforts include programs that provide training and employment opportunities for youth who are both out of work and out of school, and industry sector-focused training programs that meet the needs of businesses by upskilling workers in areas that support company growth and individual advancement. Some of these initiatives operate in partnership with secondary schools and community colleges, creating opportunities for workers to earn credentials or credits toward industry-recognized certificates and degrees and to build an educational foundation that can support further advancement.

Too often, however, work happens in isolation. An initiative may serve a particular industry or occupational need, but no comparable efforts exist for businesses outside of that targeted scope. A program may serve a small set of businesses within a narrow geographic area, but not have sufficient capacity or scale to reach a broad set of companies with comparable workforce needs in the economic region. A community may have a successful program to help youth engage in the labor market, but may offer little to working people who need a better job. Workforce and economic development efforts may not be systemically connected so that investments to grow the economy and engage the workforce go hand in hand, and business leaders with the potential to both contribute to and benefit from this process may not be engaged.

CTWP teams sought to address some of these challenges to meet the workforce needs of more employers in their region.
and connect more of their community members to work. Leaders of seven regional partnerships – in Buffalo, New York; Phoenix, Arizona; Houston, Texas; the San Francisco Bay area in California; northwest Georgia; New York City; and Washington, DC – explored strategies aimed at developing the local workforce for different industries and occupations. Some of these partners had a significant history of working together, while others were just beginning to build collaborative practices and find the complementarities to strengthen their relationships. From late 2015 to mid-2016, representatives of CTWP teams, led by the Aspen Institute's Workforce Strategies Initiative [AspenWSI] and FutureWorks, engaged in a program of learning activities designed to provide a forum for partnership-specific developmental work as well as cross-partnership learning and sharing. In addition, the regional partnerships invited AspenWSI and FutureWorks researchers to learn along with them, provide a sounding board for identifying and exploring actions to address challenges, and document their efforts.

The CTWP partners hail from business, economic development, secondary and higher education, workforce development, policy research, local government, worker advocacy, and philanthropic organizations. This playbook highlights key takeaways from their work together, and we hope that it will be helpful for a broad range of individuals involved in talent pipeline strategy development and planning.

The Changing World of Work

The changing world of work presents new challenges to the practice of workforce and economic development. For one, business leaders are adopting more complex technologies in their workplaces, often leading to requirements for new, more advanced skills for their workforce. Building these skills – from operating a computer-aided device to take precision measurements in a manufacturing facility to using portable computer technology to manage and meet patient care needs in home care settings – demands closer connection between employers and education and skills training providers.

Adoption of new technologies in the workplace also can lead to reorganization and loss of jobs to automation, making what were once middle-skill jobs obsolete, while at the same time creating changes in other jobs that cause them to become higher skilled or lower skilled. The ways in which technology changes both the location of employment and necessary work skills are difficult to predict and hard to keep up with.

Other factors have contributed to changing work arrangements between employer and worker. Some estimate that more than 23 million Americans, or 15.8 percent of the employed labor force, are now part of the contingent, on-demand, or 1099 workforce.¹ The largest proportion of these alternative work arrangements are through temporary, part-time, and subcontracting relationships that often result in reduced job tenures and more complicated arrangements for skill upgrading. For example, employers do not (and legally cannot) invest in training for contractor-status workers. Yet many 1099 workers need training opportunities to develop skills not only to keep up with changing business needs and maintain employment, but also to navigate and manage self-employment.

Education requirements of employment are projected to change for some occupations. According to Bureau of Labor Statistics data, in 2014, 10.6 percent of entry-level occupations typically required education beyond high school but less than a bachelor’s degree, and over 25 percent of occupations required a bachelor’s degree or more. Jobs requiring postsecondary education, however, are growing faster than average, and by 2024, over 37 percent of jobs are projected to require some education beyond high school.²

Yet, despite some jobs requiring higher levels of education, a large and growing number of workers are employed in occupations that require a high school diploma or less. This includes workers who have low earnings and are employed in retail and food services, and direct health care workers, such as home-care attendants and nursing assistants. The occupational structure of career ladders for this type of work includes large numbers of entry-level jobs relative to the number of positions that pay family-supporting wages. For example, in 2014, there were over 4.7 million food and beverage service workers, with a median wage of $9.16 per hour, but there were only 305,000 food service managers, who earned a median wage of $23.41 per hour, for a ratio of 15 workers per manager.³

Many of the jobs requiring a high school diploma or less in these sectors are part time, and it can be difficult for workers to piece together employment that adds up to full-time work. For example, the US Bureau of Labor Statistics reports that about one in three retail sales people work part time, and that many work irregular hours that include nights and weekends.⁴ Variability in scheduling affects workers’ ability not only to work multiple jobs, but also to participate in education or training programs. In these industries we need strategies for engaging employers in conversations that focus on job quality in addition to the development of workforce skills and career advancement.

In some industries employers report challenges finding workers to fill middle-skill jobs. Changes in workforce demographics may be contributing to this concern. The large “baby boom” population has begun to retire. Even industries that are not growing new middle-skill jobs must replace increasing numbers of experienced employees with new workers. By 2024, baby boomers will be ages 60-78. Many will no longer be working.⁵

Training and education providers need new strategies to develop and finance programs that are better linked to employment opportunities. However, many businesses need assistance identifying and describing the skills they seek or recognizing other factors that influence their ability to hire and keep talent with the skills they need (which could include issues related to compensation or workplace practices and culture). Also, many workers lack the necessary resources to invest in themselves to get ahead and frequently lack the knowledge and connections needed to chart a career path. The result is underuse of talent, which serves neither workers nor business and leads to continued reliance on the taxpayer to support the basic living expenses of working people who depend on subsidies such as the Earned Income Tax Credit, the Supplemental Nutrition Assistance Program [food stamps], and other means-tested benefits.

A range of strategies are necessary to engage the workforce and, importantly, the businesses that employ them to help workers achieve economic stability and access opportunities to build skills, be rewarded for building their skills, and contribute their fullest

to our economy and society. In the current era of intense competition for scarce public resources, strategies for engaging businesses to find solutions that not only leverage public resources but also include business-based contributions to skills development are critical.

Disconnected Islands of Excellence Are Not Enough

These types of changes call for different kinds of workforce development approaches than we have relied on in the past. We can no longer rely on a patchwork of disconnected programs with limited scope and duration, which are difficult to scale up to a level sufficient to have a major impact. We can no longer be satisfied that we have created a demand-driven workforce development system if it is only meeting the needs of a handful of employers, rather than the labor market as a whole. Likewise, we can no longer define success solely in terms of the outcomes of programs focused on developing workers’ skills for the “good” jobs in a regional economy without also focusing on strategies that encourage businesses to engage in the talent development of their workforce. We need to move beyond disconnected islands of excellence and build toward strategies that recognize workforce development, including business community engagement in talent development, as integral to economic development.

Effectively integrating economic and workforce development requires us to work across program and jurisdictional boundaries to take more comprehensive approaches and be much more strategic in our efforts to reach scale. We need systems to better match the demands from employers and industry with the content of training and skills development programs. We also need to expand opportunity for a broader swath of the workforce so that talent does not languish in unstable, entry-level work that is not connected to a path forward.

The US Economic Development Administration describes economic development as creating “the conditions for economic growth and improved quality of life by expanding the capacity of individuals, firms, and communities to maximize the use of their talents and skills to support innovation, lower transaction costs, and responsibly produce and trade valuable goods and services.”

Yet there are a range of systemic obstacles to linking activities of workforce development and activities of economic development and to collaborating across different types of organizations on talent development strategies. For example, workforce development agencies (including secondary schools, community colleges, and other adult education and training providers in the public workforce system) and economic development agencies and organizations (e.g., business assistance organizations, industry extension agencies, economic development districts, business or economic development councils, chambers of commerce, and other related entities) have different primary constituencies and are accountable for different outcomes. Workforce agencies’ goals are to help individuals obtain jobs, retain jobs, and improve their earnings. Economic development agencies’ goals, on the other hand, relate to business outcomes such as business growth, job creation, and a number of other measures that indicate business success and regional competitiveness in retaining and creating jobs.

---

Other collaboration challenges that workforce and economic development leaders face relate to dramatically different time frames and funding guidelines. Investments in regional economic development may not be expected to pay off for years, while investments in skills training and job placement assistance must show results within months. Even when businesses are fully engaged in local talent development planning, predicting the right scale and timing for employment needs is difficult. The two types of agencies have specific guidelines governing how they may use their resources. This can hinder development of innovative programming, as it is challenging to weave together funding from resources that are tied to different timelines and expectations about outcomes and accountability. Compounding this is the reality that few sources of funding, public or private, allocate resources for the type of planning and relationship building necessary for developing partnerships, innovating, and testing new ideas.

The Playbook

This playbook presents highlights of the work of seven regional partnerships engaged in CTWP, organized as “plays.” The plays describe strategies that AspenWSI and FutureWorks researchers and CTWP participants in the learning project believe will be useful for others engaged in the complicated task of creating talent development approaches that leverage the knowledge, capacity, and resources of not only education, workforce, and economic development providers, but also business partners. We developed these plays based on partners’ reflections on their experiences, as well as researchers’ observations of their work. AspenWSI and FutureWorks researchers convened two learning meetings, at which representatives from the seven partnerships shared information about their work. Researchers also conducted site visits and telephone interviews to learn firsthand about work on the ground and to engage a wider range of informants and constituents.

The following table provides information about the seven partnerships engaged in CTWP learning and research activities. The table lists the organizations engaged in CTWP; however, it is important to note that these groups are subsets of larger groups of actors engaged in regional talent pipeline development strategies in each of the communities. For the purpose of providing focused efforts that could be explored within the one-year time frame of CTWP activity, each group identified a component of their work, which we describe as “CTWP Focus” in the table. This focus does not represent the entire scope of the partnerships’ local work; the Industry/Sector Focus column briefly reflects this broader scope. For some of the partnerships, researchers did not necessarily explore all of the industry sectors listed in that column. Finally, the seven partnerships are at different stages in their work together. Thus this playbook includes information about strategies being developed and deployed by nascent as well as more mature collaborations. For more detailed descriptions and research briefs describing the partners’ work that informs this playbook, we invite you to visit http://www.aspenwsi.org/communities-that-work/overview/.
### Communities That Work Partnership Regional Partnerships

<table>
<thead>
<tr>
<th>CTWP Partnership</th>
<th>Partners</th>
<th>Industry/Sector Focus</th>
<th>CTWP Focus</th>
</tr>
</thead>
</table>
| **Greater Phoenix, Arizona** | **Lead Agency:** Arizona Commerce Authority  
**Partners:** Arizona Technology Council, Cox Communications | Information technology | Engaging and creating initiatives among business, education, and government to develop and retain the information technology workforce, an emerging driver of regional economic development |
| **San Francisco Bay Area, California** | **Lead Agency:** Bay Area Video Coalition  
**Partners:** City and County of San Francisco Office of Economic and Workforce Development, CBS Interactive, Work2Future/ Silicon Valley/San Jose Workforce Investment Board | Information technology | Addressing challenges posed by the shift in the region’s information technology sector to a largely contract-based workforce and identifying promising practices and policies to support contract workers and employers |
| **Buffalo and Niagara Falls, New York** | **Lead Agency:** Buffalo Niagara Partnership  
**Partners:** Erie County Executive Office, National Grid, Community Foundation for Greater Buffalo | Health and life sciences, advanced manufacturing, energy, tourism | Using principles of collective impact, developing a multiyear, multisector approach that knits together solutions for workforce and economic development in the region, focusing on how employers and educators can better respond to industry demands and expand access for minority populations |
| **Greater Houston, Texas** | **Lead Agency:** Greater Houston Partnership  
**Partners:** San Jacinto College, United Way of Greater Houston, Gulf Coast Workforce Solutions | Petrochemicals, construction, health care | Establishing and strengthening a collective impact approach, launching and maintaining a central platform for communicating about and marketing high-demand careers, and working with three industry sectors to achieve measurable results |
| **Greater Washington, District of Columbia** | **Lead Agency:** Metropolitan Washington, DC, Council of Governments  
**Partners:** Greater Washington Board of Trade, Prince George’s County Department of the Environment, Anacostia River Initiative/Federal City Council Anacostia Waterfront Trust | Stormwater management infrastructure | Addressing current and future skill and talent needs for a $10 billion investment in stormwater management projects in the DC Metro region over the next decade |
| **New York City, New York** | **Lead Agency:** National Domestic Workers Alliance  
**Partners:** National Employment Law Project, Hand in Hand | Domestic work | Identifying skills that employers seek among domestic workers; exploring career paths, credentials, and training; supporting employers in adopting high-road practices in dispersed, unregulated, and informal workplaces |
| **Northwest Georgia** | **Lead Agency:** Northwest Georgia Regional Commission  
**Partners:** J+J Flooring Group, Technical College System of Georgia, Greater Dalton Chamber of Commerce | Floor covering manufacturing | Engaging the floor covering manufacturing industry to explore changes in secondary school curricula, share training assets, promote industry-based career paths, and build a sustainable partnership to provide support for manufacturing, the region’s largest employer base |
The plays, derived from CTWP regional partnership work, provide insights for others to contemplate as they work on building partnerships; collect, analyze, and use data on workers and industries; think through the details of skill-building strategies; and consider needs for integrating resources beyond skill building to strengthen the talent pipeline in their region. Each play describes the strategy and its importance, provides at least one example from the Communities that Work Partnership initiative, and presents a set of “action steps” that serve as a guide for other regional partnerships that want to explore using the strategy as they develop a local approach to talent pipeline development.

We recognize that communities across the country are unique, with their own histories, personalities, assets, challenges, and population. Therefore, it is important to point out that building partnerships to address critical industry and worker needs and strengthen regional economies is not akin to assembling a bookcase for an empty apartment. Rather, developing an effective partnership and workforce strategy is more like building custom cabinetry for an established, one-of-a-kind home. Nevertheless, while individual regional partnerships must go through their own process of building something that fits within their community, the experiences and wisdom of others that have engaged in this type of work can offer lessons that may accelerate the process, offer cautions to help avoid pitfalls, and enhance the quality of new efforts. Thus this playbook seeks to offer key ideas, experiences, and lessons learned that readers can draw from and build on as they create their own partnerships and develop their own approaches to strategies that ultimately seek to strengthen their regional economies.
BUILDING PARTNERSHIPS

**PLAY:** Small, But Mighty: Engage the Most Motivated Stakeholders First to Start Fast

**PLAY:** Use What Is Working Now to Build Momentum and Show Your Community Potential Outcomes

**PLAY:** Plan for Sustainability *From the Beginning*

BEYOND LMI: COLLECTING NEW DATA

**PLAY:** Useful Labor Market Data Analysis Requires Local Employer Input

**PLAY:** Include Local Workers’ Perspectives in Data-Gathering Efforts to Inform Workforce Development Strategies

BUSINESS ENGAGEMENT AND SKILLS DEVELOPMENT: BALANCING CUSTOMIZATION AND STANDARDIZATION

**PLAY:** Use Workforce “Prototyping” as a Key Strategy in Workforce Development to Speed Up Learning and then Scale Solutions

**PLAY:** Five Questions to Address Before Developing a New Credential

BEYOND JOB-SPECIFIC SKILLS: ADDITIONAL STRATEGIES FOR IMPROVING THE TALENT PIPELINE

**PLAY:** Human Service Strategies May Be Key to Unlocking Untapped Talent

**PLAY:** Navigating Today’s Labor Market: Equipping Workers to Manage Their Work Lives in a Changing World of Work
SECTION 1
BUILDING PARTNERSHIPS

The CTWP regional partnerships were intended to bring workforce development and economic development players and goals together, and to include the leadership and perspective of business in shaping the partnership strategy. Bridging the resources and experience of business leaders with the capacities of economic development leaders and the skill-building abilities of education and workforce development organizations provides a strong foundation to pursue strategies of economic growth and job creation. This type of partnership also incorporates workforce skills development that creates job connection opportunities for local residents.

Building partnerships is a valuable strategy for aligning and leveraging often limited local resources and for allowing organizations to play to their strengths. But developing partnerships may not be straightforward. Partnerships bring together individuals from different types of organizations, and finding ways to work together can often be complicated. Partners need to understand one another’s motivations and goals and to build trust with each other. Often, organizations representing varied institutional types differ in their operating styles, resource constraints, accountability measures, communication styles and jargon, and organizational cultures. Bridging these divides and building trust can take time, but it is equally important to get moving in a partnership and gain momentum around shared experiences, which can help build understanding and trust. How, then, do partnerships that bring together business, economic development, and workforce development balance these competing needs and move forward?

In this section we draw on CTWP experiences in building productive partnerships. In the first play, “Small, but Mighty,” we describe actions to avoid getting bogged down in the “getting to know you” stage of a partnership and move along to strategy development and implementation. In the second play, “Use What Is Working Now,” we describe the value of promoting early, tangible accomplishments to raise the profile of a partnership in the community and build momentum and energy to pursue an ambitious agenda. In the third play, “Plan for Sustainability From the Beginning,” we offer design ideas that can facilitate efficient use of resources and long-term growth to meet regional workforce needs over time.
The Strategy

In many communities, a wide variety of stakeholders see strengthening workforce skills as a strategy for improving economic vitality that has benefits for both workers and companies. Economic development leaders know that a capable workforce is essential to attracting businesses or helping local businesses grow and remain competitive. Workforce development leaders strive to prepare residents for labor market success and connect people to jobs. Leaders of secondary and postsecondary education institutions want their programs to prepare students for employment. Public agencies and social service organizations recognize that improving workforce skills and connecting people to employment or to better employment will help clients who rely on their services to achieve greater independence. And of course, the issue of workforce skills is of concern to many, many businesses. Trying to include all of these organizations in planning and developing a new regional workforce strategy can quickly become unmanageable.

Leaders who seek to involve all stakeholders in early stages of new partnerships have good intentions. However, all too often, attempting to launch new initiatives with a large number of organizations at the table makes progress difficult. It is common for many individuals to come to a kickoff meeting, but then for fewer and fewer to attend subsequent meetings. This is because some may be unsure about what role they might play or might be expected to play among people they might not know particularly well. Many may be waiting to see whether others will contribute to the partnership effort to determine if participating will be worth their energy and time. Also, the larger the group, the greater the perceived risk of being one of the “first movers.”

An alternative approach, one that may seem obvious but that requires confidence, is to start small and grow a partnership over time. Starting small has its own risks. Often, there is a concern that if a particular stakeholder is not explicitly included, then that organization will feel excluded and will not support the partnership later. Keeping a partnership “below the radar screen” runs the risk that other organizations invest in a competing effort, which can undermine the goal of work that is intended to address the challenge of fragmented efforts. Finally, many organizations have resources from funders that pressure them to reach out broadly, even in the beginning stages of a partnership. For example, an organization may be evaluated on the number of businesses or percentage of local industry included in an effort at the end of its first year funding, or it may be required to show evidence of having included a large and representative portion of stakeholders in a proposal in order to be eligible to receive funding.

While a number of pressures may work against starting small, the many benefits may warrant working through these challenges. A key benefit of a small group is that it makes it easier for individuals and organizations to get to know one another and build trust. Starting with a smaller group of partners facilitates individuals’ understanding of
Communities that Work Partnership Playbook

one another’s organizational assets, constraints, terminology, and operating and communication cultures. This helps partnerships break down silos that keep economic development, workforce development, education, and others from operating in a coordinated fashion and that keep business at arm’s length. Additionally, a smaller group can more easily establish effective communications and accountability mechanisms, encouraging partners to make and follow through on important commitments.

A number of strategies can help a small team mitigate the pressures to go big too soon. Including a respected champion, such as a leading member of the business community, who is willing to be the public face of the partnership and is well-recognized as being a leader in the business community, can help work against a feeling of exclusion when not inviting all business leaders to participate in early stages of an initiative. That person can be a strong advocate to engage others to join the effort when the time is right. In addition, a clear communication strategy that is open about the work of the partnership and offers a concrete opportunity for additional members to engage in an authentic way provides a positive and constructive means of creating a feeling of inclusiveness and responsiveness to new players as the partnership expands. Starting small may mean making creative use of existing community resources rather than seeking new funding. But starting small may also require less external funding.

While a community may ultimately aim to develop a broad workforce strategy that meets the needs of a variety of employers and job seekers, engaging a small but motivated subset of employers and organizations that work with job seekers may be the best first play to get the action started. The experience of northwest Georgia offers insights on starting with a small, highly motivated group of players as a first step in working toward its broad, regionwide vision.

Example: Northwest Georgia Communities that Work Partnership

The floor covering industry is a leading employer in northwest Georgia involving dozens of manufacturers. Thus developing local talent to work in the industry is critical to the long-term economic health of the region. Like many industries, the floor covering sector slowed during the Great Recession, but business has bounced back, and the floor covering sector in northwest Georgia is thriving. Like many manufacturing industries, technology has changed the nature of floor covering production, creating new skill needs for the workforce.

The Northwest Georgia Communities that Work Partnership wanted to develop a talent pipeline for this critical local industry by creating an advanced manufacturing curriculum that included an apprenticeship component and would be delivered through the region’s schools, in either college and career academies or career and technical education programs in local school districts. The 15-county region includes eight city and county school districts, five public charter college and career academies, and five local colleges. Given the demand for qualified workers among local companies, partnership leaders initially envisioned getting as many businesses and schools as possible involved in their efforts to plan and launch the curriculum.

---

8 For more information about the Northwest Georgia CTWP partnership’s work, visit http://www.aspenwsi.org/communities-that-work/overview/.
Under a prior initiative, leaders planned and implemented an ambitious effort to engage a large number of stakeholders, provide a forum for the business community to raise and address challenges, identify a vision and mission to strengthen advanced manufacturing, and set goals. However, that effort struggled to move an agenda forward, and another school year was ending without an advanced manufacturing curriculum anywhere in the region’s school systems.

A few stakeholders decided to take a different approach. A small group of leaders representing seven floor covering businesses collaborated with leadership at one school to establish a new curriculum. They concentrated their efforts on working out the myriad issues related to launching this program and learning from the process of design and implementation in one school, rather than attempting to create a program to meet the needs of the entire local industry and school system. This strategic decision led to success – the establishment of the Advanced Manufacturing and Business Academy at the Northwest Georgia College and Career Academy, a charter high school within Whitfield County Schools, with a goal of enrolling 200 freshmen in the program in August 2016.

Partners engaged in this effort reported that their small group size helped them keep things moving forward. Each participating business identified a key person within the organization authorized to make decisions and commitments to advance the work of the partnership. The group also established a process for ensuring accountability to one another.

Although they kept the development group small for the purposes of getting started, the original vision of engaging many more companies was not abandoned. Partnership leaders noted that since getting their one, focused effort off the ground, founding members have served and continue to serve as champions, bringing in new industry leaders and soliciting additional critical participation. The partnership identified several concrete “asks” that they make of new businesses as they seek to broaden the partnership. These include conducting manufacturing plant tours for students, parents, and guidance counselors; donating materials and equipment; and providing apprenticeship opportunities to students. These clear asks, made of business leaders by business leaders, have been useful tools for engaging other businesses and broadening the partnership with an eye toward growth.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Assess the current state of participation and decide if you have enough key partners representing different constituencies engaged to get started. In addition to economic development, business, and education and training provider representation, ensure you have at least one partner who represents the viewpoint of the community residents you seek to prepare for jobs. Ensure no other viewpoints are lacking representation.

- Think ahead and develop an ongoing list of additional partners (and their potential roles) to engage at different stages of the work.

- Determine if business partner members represent enough workforce demand for the targeted purpose, and if not, determine whether their workforce needs can be extrapolated to a larger industry group or set of occupations.

- Reflect on your prior experiences with partnering (and those of others in your initial group) to develop a flexible organizational structure that will help keep you moving forward.

- Decide as a group what approach the partnership will take to hold members accountable for following through on commitments and who is best positioned to manage communication around follow-through.

- Build in ways to communicate about the work and progress of the partnership with other stakeholders.

- Brainstorm specific, action-oriented ways that new partners can engage in future phases of the work.
The Strategy

Leaders in a number of CTWP communities are pursuing regionwide talent development initiatives that seek new solutions to workforce skill challenges. However, none are easy, quick-fix endeavors. For example, CTWP leaders in the Buffalo-Niagara region of western New York are employing collective impact planning to change how talent development systems function to produce larger, and lasting, outcomes in workforce development. A major goal of this region’s emerging collective impact work is to better link residents with a history of employment disadvantage with new jobs being generated by businesses in growth industries that are the target of public economic development investment.9

As part of their collective impact efforts, leaders are engaged in identifying regionwide goals. They then bring together leaders from an array of educational programs, community-based efforts, and business groups to facilitate development of broadly supported, sustainable solutions.

This CTWP effort is in the early stages of implementation. The partnership has been engaged in gathering data, identifying specific employment opportunities, understanding the root causes of workforce challenges in the region, and weaving together a diverse set of resources to build shared ownership among a range of partners. Like many communities, the Buffalo partnership has goals that will take time to achieve. It faces challenges that derail many long-term efforts.

A major challenge is the need for fairly quick progress, as potential partners and constituents may lose patience with long, drawn-out planning processes and become skeptics. The Buffalo partnership understands that the longer a planning process goes on without concrete success, the more likely that skeptics could turn allies into opponents.

One strategy for addressing these challenges is to seek out existing partnerships in your region and identify joint “early win” projects. The purpose of pursuing this approach is to balance planning with initial tangible progress, build momentum, and quiet the skeptics through early implementation of a project. This also strengthens partnership through shared success.

9 For more information about the Buffalo CTWP partnership’s work, visit http://www.aspenwsi.org/communities-that-work/overview/.

Example: Buffalo Communities that Work Partnership

Broad, big-vision, long-term, multistakeholder approaches take time and patience to build, but in the meantime, coalition leaders can leverage existing local efforts to make progress more quickly. During 2016, leaders of the Buffalo regional partnership chose to seek out an early win project to launch its first talent pipeline project with local businesses. The group includes the Buffalo Niagara Partnership, Erie County Executive Office, National Grid, and Community Foundation for Greater Buffalo. The group chose to leverage a well-known model effort in the city called Say Yes Buffalo to launch a related component, Say Yes Interns, a first step toward linking a successful education program to business and employment opportunities. This discrete project, which leaders determined they could implement relatively quickly, meshed with their larger, long-term regionwide collective action development goals. In addition, the project built on, promoted, and supported the successful work of others in the community (in this case, the education community), as well as grew and strengthened its regional workforce partnership through shared success.

The goal of Say Yes Buffalo is to get more Buffalo students into and through college by combining K-12 student support services with a powerful incentive to graduate—grants for postsecondary education tuition. Say Yes has achieved dramatic improvements in Buffalo high school graduation rates [a 12 percentage point increase in three years] and college enrollment rates [a 10 percentage point increase in three years].

Building its efforts on the credibility of Say Yes Buffalo's proven track record of success, the CTWP regional partners engaged businesses in building the new Say Yes Interns program to provide paid internship opportunities to Buffalo City Public Schools graduates. Member businesses of the Buffalo Niagara Regional Workforce Coalition provide paid internships to college juniors and seniors. Businesses are also engaged in the internship program by providing job shadow days and tours and organizing career exploration events. The initial startup of Say Yes Interns began with a manageable 13 interns in 2016. Starting small allowed the partners to learn from early experiences and quickly make any necessary program modifications. They plan to scale up the program in 2016-2017 to serve larger numbers of students working for more businesses engaged with the partnership.

The new internship program offers a variety of benefits to both students and businesses. For businesses, Say Yes Interns affords employers opportunities to learn about and tap into talent from the city of Buffalo that has often been overlooked. It helps businesses establish stronger relationships with local educational institutions since the internships are generated in partnership with college-going Say Yes scholars and their institutions. This early win approach also offers businesses a tangible way to participate and explore strategies to expand employment opportunities for local residents as part of the collective impact work of the Workforce Coalition. For students, the internship program creates incentives that link high school graduation with

---

Data collected by Say Yes Buffalo from New York State Education Department, Buffalo City School District Report Cards indicate that Buffalo Public Schools’ four-year high school graduation rate increased from 49 percent in 2012 to 61 percent in 2015. National Student Clearinghouse data indicate that the rate of postsecondary enrollment among Buffalo Public Schools’ high school graduates in the fall semester immediately following their graduation increased from 57 percent in 2012 (before implementation of Say Yes Buffalo) to 67 percent in 2015.
college matriculation and income (through the paid internship). Furthermore, the businesses participating through the Workforce Coalition are in industry sectors notable for jobs that pay good wages and provide access to workplace experiences and career opportunities to which low-income Say Yes Buffalo scholars traditionally have not had access.

In addition to these early tangible benefits to businesses and students, another reason the Workforce Coalition sought out an early win through Say Yes Interns is because of the larger Say Yes initiative’s track record of productive collaboration with multiple partners across systems. Leaders in the region tout Say Yes Buffalo for its transparent governance structure and its ability to develop solutions between and among many partners, including business, philanthropy, education, and government. Say Yes Buffalo has built trust among partners and achieved dramatic results where deep racial, class, and educational divisions previously blocked progress. The Workforce Coalition benefited from Say Yes Buffalo’s “trust cache,” which inspired confidence and enthusiasm among additional business partners to get involved in the Workforce Coalition.

Say Yes Buffalo also benefits from creating a closer, more formal relationship to the Workforce Coalition. Most directly, Say Yes Buffalo has added a new and growing employment component to its education initiatives, extending its ability to link college completion and good employment. And through this collaboration, the Workforce Coalition brings to the Say Yes Buffalo effort a stable of business leaders who are motivated and in a position to contribute to and become more involved over time in the broader inclusive economic development planning that is critical to addressing the region’s opportunity disparities that underpin local talent development challenges.

Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Look for a local coalition that has been successful in a related issue area [e.g., education, public health, transportation]. Identify the constituency it is intended to benefit and overlap with the job seekers, incumbent workers, or businesses that you expect to benefit from your partnership.
- Consider whether a coalition shares interest in serving a similar target population or could reasonably expand to serve your target population.
- Explore the relationships, reputations, and abilities of members of other partnerships and the potential risks and benefits of aligning to achieve an early win.
- Look for overlaps in membership between your partnership and another group.
- Identify the ways in which another initiative could help you to build and strengthen your partnership, as well as ways your engagement could also strengthen the other initiative’s partnership. Think about the resources and goals of both initiatives.
- Assess the potential of an early win action aligned with an existing partnership in terms of its potential to achieve quick and measurable outcomes that build confidence and momentum.
- It may be helpful to start with early wins around issues with low levels of controversy [e.g., internships] and build trust among partners to tackle more difficult issues [e.g., racial disparities and inequality in a community]. But keep in mind that there is danger in remaining in the “safe zone” of less-controversial issues and not progressing to addressing bigger, harder challenges for which it may take longer to see results.
The Strategy

Partnerships may start due to a particular spark, which can be anything from winning a grant to a news story highlighting a local challenge. That initial spark may be enough to impel a burst of action, but is it enough to keep an effort going and growing? Creating a strong workforce system that is responsive to business needs requires resources and sustained effort. It is thus critical to plan how to sustain an effort past its initial start and fulfill ambitions to meet the regional talent need.

In planning for sustainability, it is worth thinking about which specific activities that are part of launching an initiative must be maintained over time, and where those activities have compatibility with the work of institutions and organizations in the region. In this way, the work of an initiative may be positioned to continue to learn about both business and worker needs and build on or redirect existing resources – rather than create demand for new resources. An initiative that will require new resources to support continued operation and growth, even if it is initially successful, is much harder to sustain over time. Government grants, philanthropic resources, and other typical startup funding sources are frequently time limited, so designing for sustainability within the existing local resource pool is critical.

Sustainability, of course, is necessary only if the issue that the initiative is designed to address persists. There is no point to sustaining a solution if a problem has been resolved. So planning for sustainability requires acknowledging that the usefulness of initiatives must be assessed regularly, and implementers must remain open to discontinuing or adapting programming that has outlived its usefulness. For example, training and education programs that have ramped up capacity to meet demand for workers with a particular skill set may focus on maintaining their operations as time goes on, rather than scaling back training as demand for those skills declines or adjusting the content of curricula when local businesses change their skill requirements. Since much of this training is intended to meet the needs of business, but is supported through public or philanthropic dollars, common performance measures that are attached to these funding sources, such as program completion or credential attainment, are unlikely to reveal that the training is no longer in alignment with labor market needs. However, it is often the case that as one skill issue is resolved, another comes up. Thus developing a feedback loop that keeps an understanding of current skill needs up to date, and building and maintaining capacity to identify new issues and develop and deploy new solutions is a critical factor to consider in sustainability planning.

In economic and workforce development, this capacity for ongoing exploratory work is critical to sustainability of efforts that are solutions to current problems. Economic conditions frequently change, creating new types of work and needs for new workforce skills and abilities. Therefore, workforce solutions that can address those needs will also need to adapt. Thus designing an approach that both makes creative use of existing resources and builds adaptive capacity to check that activities remain relevant to local needs is critical to a plan for sustainability.
This approach to the challenge of sustainability is clearly easier said than done, and of course the efforts we observed within the CTWP regional partnerships have not yet stood the test of time that is the ultimate arbiter of success in a sustainability strategy. Nevertheless, we observed a strategic approach to planning for sustainability that merits attention. It involves limiting the additional resources needed to explore employment demand in an ongoing manner to inform the development of programming designed to be discontinued or adapted when employer skill needs are met or change. The Greater Houston partners crafted such an approach, one that creatively leverages existing resources, relationships, and capacities of organizations within the region; engages them around a common goal; and builds a communication and feedback loop among these organizations, thus minimizing the level of additional resources needed to move their strategy forward and maximizing the likelihood of sustainability because they are positioned for adaptive approaches and long-term job-driven workforce development.

Example: Houston Communities that Work Partnership

The Communities that Work Partnership group in the Houston area includes the Greater Houston Partnership, a long-standing membership organization of business leaders focused on making the Houston region a great place to live, work, and grow a business. In 2015, the partnership launched the UpSkill Houston initiative as a business-led, communitywide, integrated workforce effort, an initiative very much aligned with the vision of the Communities that Work Partnership. UpSkill Houston focuses on several critical industry sectors, including petrochemicals. The group identified a projected skills gap in the industry – construction skills needed to build and maintain petrochemical production facilities in the region. Instead of taking that information to individual businesses and working to build a new business coalition around the workforce needs of the petrochemical industry, UpSkill Houston sought an existing entity that had already engaged and built trust with petrochemical businesses in the region. It turned to East Harris County Manufacturing Association (EHCMA), which was established in 1987 and represents the interests of manufacturing companies and some of the world’s biggest petrochemical operations in the east port region of Greater Houston. Leaders of UpSkill Houston identified both how the abilities, relationships, and resources of EHCMA complemented their own and that EHCMA shared their interest in addressing the challenge of an aging workforce and impending skill shortage in petrochemicals. The two organizations mapped out a strategy to share information and collaborate on efforts to create a new pipeline of workers.

To begin, UpSkill Houston leaders focused on the opportunity in EHCMA’s long-standing annual member survey. An existing survey platform offered the chance to gain input from a variety of business leaders who were accustomed to responding to EHCMA’s survey, as well as the technical capacity to field and analyze the results. UpSkill Houston leaders worked with EHCMA to recraft the survey to focus on workforce issues, resulting in new information and greater detail from petrochemical businesses about the skill needs and workforce concerns in the industry. UpSkill Houston took the survey findings to its connections in the regional network of community colleges and community-based organizations to collaboratively develop a new curriculum and work-based learning opportunities, leveraging the resources of both the education and training establishments and the industry to build a workforce development strategy that is designed to be adapted as employment conditions change.
Thus UpSkill Houston is building an approach to addressing the workforce needs in its region’s vital petrochemical industry with sustainability in mind. The partnership connected to the existing education and training institutions to leverage existing skill-building capacity. It also connected to an existing data-gathering forum that employers recognize and participate in to develop the capacity to track industry need. This approach helped UpSkill Houston both learn about demand expressed by EHCMA’s membership with respect to job skills and explore the landscape of potential work-based learning opportunities needed to underpin effective construction skills training. The group also created connections with training providers and workforce institutions to build a regional skills system that relies primarily on existing operational resources and building the business case for employer investment. By focusing on existing networks with common interests, approaching businesses using an “insider” communication tool, and creating strategies to connect and combine existing resources in the community, UpSkill Houston aims to lead a strategy that meets industry need and can be sustained to meet changing industry needs over time.

Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Identify the interests of not only local workforce development organizations, but also business organizations, and brainstorm ideas to engage and motivate them to contribute to the regional workforce partnership strategy. Consider the capacity of existing organizations to contribute to key parts of the strategy, such as gathering industry information, engaging specific businesses, and delivering education and training services.

- Assess potential partners for their ability and positioning to help your efforts reach the businesses and talent sources you most hope to engage. Look for partners that are trusted by their members and other important stakeholders, have a history of fiscally sound operations, and have a track record of success.

- Develop a networking strategy to connect with potential partners. One approach is to take an inventory of the initiatives, boards, and advisory groups that your partnership’s leaders are engaged with and identify areas of overlap with targeted partner organizations.

- Collaborative approaches involve engaging organizations to align their resources toward a common goal, and can raise sensitive issues for some potential partners. Consider the potential benefits and costs of the work from multiple perspectives to build trust and common purpose among partners, and bring any concerns about reallocation of resources into the open so that they can be addressed.

- Keep relevant policymakers at the local, state, or even national level informed of your efforts so you can build them as an interested constituency of your work. Resources for education and skill building are often substantially influenced by policy choices, so keeping policymakers informed can build their motivation to continue to support the work or address needed policy changes.

- Create mechanisms for continued feedback among players so that an initiative achieves flexibility and adapts to regional workforce needs, and only necessary solutions are sustained.
SECTION 2
BEYOND LMI: COLLECTING NEW DATA

The workforce and economic development fields have grown quite adept at using traditional labor market information (LMI) data sets to inform their understanding of industry needs for workforce development efforts. Over the years, a variety of tools have been developed and technical assistance offered to help organizations and agencies more easily access and use LMI data.

But information available in traditional LMI data sets cannot provide all the information needed to understand what employers and workers need from a workforce development effort. Data sets are limited to quantitative data gathered via large surveys or administrative records and organized in categories that represent industries, companies, and classes of workers defined broadly. Augmented by sources of privately collected data, such as information about job postings in a region, they are a good start for understanding a regional labor market. However, regional partnerships must dig deeper to explore aspects of sectors and workers not captured in traditional data sets or aggregated into categories that mask important nuances about the characteristics of a region’s business base and workforce.

Several CTWP groups took this deeper dive. They went out into their communities and gathered their own data through customized surveys, focus groups, and interviews. They engaged directly with informants to learn very specifically about the skills and workforce they need to succeed. An important point is that they engaged both employers and workers to learn about different views and experiences. The next two plays provide examples about the ways in which two CTWP partnerships expanded on traditional LMI data analysis and gathered new data to get a better understanding of an important segment of their regional labor market.

SOURCES OF LABOR MARKET DATA

Both the US Department of Commerce and the US Department of Labor, as well as most state departments of labor and economic development, provide access to data detailing employment and industry information and tools for compiling, viewing, and downloading data. The “Guide to State and Local Workforce Data” is a rich source of information on LMI data provided to the public by a large number of government and private organizations. Data sources highlighted in the guide cover employment, earnings, wages and benefits, safety and health, and industry-specific resources, in addition to other topics.

---

22 US Department of Labor, Employment and Training Administration, “Guide to State and Local Workforce Data,” https://lmi.workforcegps.org/resources/2015/04/03/15/48/Guide_to_State_and_Local_Workforce_Data. This online guide includes a brief overview of each data source, the level of geographic detail available in the source, and links to each source.
The Strategy

Analyzing industry and occupation data is helpful for developing a broad understanding of a regional economy and can be useful for identifying potential areas of growth or decline in a labor market. But quantitative data, even data compiled from a variety of credible sources and analyzed with sophisticated methods, cannot alone provide the type of information needed to guide workforce development planning. In addition to well-known issues such as time lag between the collection and availability of data sources, and challenges associated with unknown factors that affect analysts’ ability to make reasonable projections, industry and occupation data simply cannot provide information about or insights into the characteristics, timing, specific skill requirements, and relative urgency associated with employment opportunities. It is this type of information that is needed to identify the jobs for which workforce strategies should be developed and to inform the type of approach that a workforce strategy should take to connect people with the skills and other resources they need to get and keep those jobs.

Good strategic workforce development planning needs more than labor market data analysis to ground it in important contextual factors at play in a region. Other information-gathering strategies, such as deep industry engagement or independent research and documentation of industry practices, are essential for getting at the level of detail needed for planning and strategy development. Grounding labor market data in local reality is time and resource intensive because workforce program leaders usually must find ways to get information directly from employers.

Example: Arizona Communities that Work Partnership

In Arizona, a CTWP partnership led by the Arizona Commerce Authority and Arizona Technology Council is focused on developing strategies to address gaps in the state’s supply of information technology (IT) talent. IT occupations cross almost every sector of the economy, and the challenge of obtaining information about the types of IT workforce skills that Arizona businesses need, at the level of specificity needed to inform talent pipeline development, was daunting. To supplement traditional labor market analysis, the partners sought a method for understanding current and emerging skill requirements of IT talent for similar occupations in different sectors.

Because Arizona partners wanted to learn about skill needs of occupations across a large number of industries, interviews or focus groups would have been too time consuming and resource intensive. While convening large groups of employers in traditional meetings might have been more efficient, facilitating conversations that would be useful for gathering information from diverse groups while also sustaining meeting participants’ attention and interest didn’t seem feasible. Given that information gathering was only the first step in the Arizona partnership’s engagement work with employers [they also

---

13 For more information about the Arizona CTWP partnership’s work, visit http://www.aspenwsi.org/communities-that-work/overview/.
planned to develop and collaborate on talent pipeline strategies, leaders wanted to make information gathering a good relationship-building opportunity.

The Arizona partners contracted a third-party facilitator to use interactive technology in an approach called “advanced electronic brainstorming” to run a series of meetings to engage large numbers of business leaders and learn detailed information about their workforce needs. More than 200 meeting attendees participated in sessions.\(^{14}\) While most participants convened in person, interactive technology used during meetings allowed them to cover a lot of ground in a short period of time. Participants provided input to a number of questions and reviewed and anonymously prioritized the importance of input offered by others. Participants commented on their perceptions of Arizona’s workforce environment, how they characterize the talent gap in IT employment, and emerging IT skill needs at their businesses. CTWP partners noted that the technology-assisted information-gathering format allowed them to drill down to a level of specificity with employer representatives that they had not been able to capture via the more traditional labor market analysis they conducted before the convenings. In addition, having played an important role in identifying complementarities in skill needs together, business representatives were primed to continue brainstorming about strategies for addressing talent pipeline gaps and the role they could play in bridging them.

**Example: New York City Communities that Work Partnership**

In New York City, leaders of the National Domestic Workers Alliance, National Employment Law Project, and Hand in Hand are exploring the potential of establishing standards for training and credentialing for nannies.\(^{15}\) Many nannies operate in the informal economy, and few of their employers report data detailing their wages and hours to the New York State Department of Labor.\(^{16}\) Thus traditional sources of labor market data are not useful for compiling information about the scale or characteristics of this workforce to inform strategies to assist nannies or their employers.

The partnership sought to gain more clarity about how employers and workers think about the concept of skill development, with the goals of improving job quality for nannies and improving quality of care provided to children [a common concern among employers]. It also wanted to learn about how employers and nannies think about their respective responsibilities for providing and obtaining training. To learn about these issues from the employers’ perspective, the partnership leveraged what was learned about methodology, tools, and results of a survey of domestic service employers conducted by the University of California Los Angeles (UCLA) for Hand in Hand, a national network of employers of domestic workers.\(^{17}\) Based on findings from this survey, the New York City partnership developed its own survey of employers to identify the types of skills they value most in a nanny and whether they would pay a higher wage for a nanny with training or a credential. Employers reported being willing to pay for a nanny to attend professional development courses and being open to renegotiating employment terms if their nanny gained new skills. They also expressed strong interest in training in specific skills, such

---

\(^{14}\) Sessions were facilitated by the Advanced Strategy Center. See http://www.advancedstrategycenter.com/.

\(^{15}\) For more information about the New York City CTWP partnership’s work, visit http://www.aspenwsi.org/communities-that-work/overview/.

\(^{16}\) The percentage of employers who employ domestic workers and who also report legally required wage information and pay required taxes into the unemployment insurance system is likely lower than 10 percent. See New York Department of Labor http://www.labor.ny.gov/legal/domestic-workers-bill-of-rights.shtm.

as infant care. These and other findings from their research are informing the partners’ developmental work on a range of types of training that are accessible to nannies and are responding to input by employers. In the short term, the partners are experimenting by piloting training based on curriculum developed by another organization. Learnings from data gathering and the pilot experience will inform additional training they are collaboratively developing in house.

**Action Steps for Applying This Strategy in Your Region**

*As you consider this strategy for your region, explore the following action steps:*

- Look beyond traditional sources of labor market data and engage directly with industry representatives to learn their perspective on current and projected workforce talent needs.

- Explore existing industry groups’ information resources before launching a new data collection effort. Even if what you learn is not sufficient to inform your planning needs, this effort may help you narrow your focus and educate you about industry terminology and culture.

- Explore the use of a third-party facilitator that has specialized skills and knowledge to convene groups from which you hope to learn. This approach has the potential to result in more engaging and productive meetings with business leaders than a workforce strategy planner usually has the skills to achieve on his or her own.

- To gather information from a large population of business representatives, consider using interactive technology.

- Partner with an expert for help designing and implementing data collection activities such as surveys, interviews, or focus groups.

- Use data as a tool to help build a shared vision for action. Information gathered directly from businesses and workers can not only underpin a credible framework of issues, but also build ownership and buy-in among those consulted (and others who identify with them).
The Strategy

Job-driven training is commonly understood as training that has been developed from research on specific skills needed to successfully perform specific jobs. Most frequently, this research is conducted with employers. However, with the changing nature of work, it is increasingly important for this research to also include the perspectives of workers. Worker perspective is important to explore as part of informing a talent pipeline strategy for any industry sector, but it is particularly relevant in informal economy industries and industries increasingly reliant on contract and “on-demand” workforces for a few reasons.

First, it is difficult to access sufficient LMI in these sectors. Data on the informal economy, such as domestic work in private households, are sparse and unreliable in traditional labor market data sets because the employers are private individuals who often do not identify themselves as employers or their homes as workplaces. These employers and employees often are not included in traditional surveys and administrative reporting mechanisms utilized by public agencies that compile and provide LMI.

Second, the nature of employment in these types of industries is different from traditional employment. Many informal economy and contract workers take on some of the risks and responsibilities that employers in more traditional employment arrangements bear, such as absorbing market fluctuations; reorganizing work, products, and services in response to fluctuations; and paying employment taxes and providing basic benefits including workers compensation and unemployment insurance. These changing roles mean that the specific skills workers need to succeed on the job go beyond job-specific technical skills. They encompass broader employment skill needs, such as how to access jobs, negotiate wage rates or fees for jobs, and discuss working conditions and terms of employment in informal contexts or with representatives of firms that manage contracts for work but are not human resources professionals.

Regional partnerships focusing on industries in which traditional LMI does not provide enough information to formulate a strategy or in evolving industries that require changing worker skill sets will need to conduct additional data collection with workers. This is a good practice for regional partnerships focused on any industry, but it is essential in the industries mentioned above. The tools used to gather information from workers regarding their employment and the skills they need to succeed are similar to the tools used to gather similar information from employers. Organizations can conduct surveys, focus groups, and interviews of representative samples of workers to gain insight into the skills and competencies workers report they need.
Example: San Francisco Bay Area Communities that Work Partnership

The San Francisco Bay Area CTWP partnership is focused on “digital workers” who are self-employed contractors working for the region’s high-technology companies, specifically companies that use freelancers to create and edit videos, design websites, provide User Experience (UX) expertise, and develop front-end web functionality.¹⁸ To better understand the training needs of these contract workers, the Bay Area partnership had to go directly to the workers. The Bay Area Video Coalition (BAVC), a key partner in the CTWP and establisher of Gig Union (GigU), a freelancer network that provides members with access to information, networking, and skills development, needed information from its members to inform program development and workforce policy recommendations, which it brings to its regional workforce board partners. Knowing that it would be difficult to get a good response by fielding an independent survey, BAVC incorporated questions into its online GigU registration. Answering the questions was the “cost” members incurred to join the organization, and BAVC collected information about the characteristics, assets, and challenges of more than 700 freelance contractors in the region. BAVC used the free online Google Forms platform, which, in addition to providing the ability to develop custom forms for collecting information, also summarizes and analyzes results. Through the survey, the partners learned that most contractors believe their technical skills in the creative digital space and in project management are strong. However, most feel they are ill prepared to be a business owner, and they would like skills training in finding consistent clients, promoting brand recognition, and networking with other freelancers, as well as information about legal employment and contracting issues targeted to their needs.

Focus groups and interviews with employers conducted around the same time found similar needs, but from the employer’s perspective. Employers expressed a need for better mechanisms for assessing contractors’ expertise in specific technical skills, strategies for maintaining a stable supply of reliable contractors, and more information on employment laws and how to properly classify and work with contractors.

In response to what they found in their contract worker-focused data collection and analysis, and reinforced by what they heard from employers, the Bay Area partnership began providing short workshops to digital contract workers on technical, networking, and business skills. They also created opportunities for contractors to network and share information with one other. By taking a deeper dive into additional data collection directly from digital contract workers [supplemented by interviews with representatives of companies that contract with them], the Bay Area partnership was able to offer relevant training to workers, which would in turn help the companies contracting for their services. Because this segment of the San Francisco Bay Area workforce is considered to be an important driver of regional business competitiveness, the partnership is exploring approaches for sustaining these services, which they developed through a time-limited Department of Labor Workforce Innovation Fund grant, by looking at how public workforce funding guidelines might be worked within or adapted to provide ongoing resources for the work.

¹⁸ For more information about the San Francisco Bay Area CTWP partnership’s work, visit http://www.aspenwsi.org/communities-that-work/overview/.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Before you decide that you need to conduct a survey, think outside the box to see if you can mine what you need from existing data sources. Someone else in your region may have already collected information that informs some of your questions. Sources could include the public workforce development board, an economic development entity, business association surveys, worker associations or unions, or academic institutions.

- Determine critical questions that remain unaddressed or incompletely addressed by other sources of information in your community. Prioritize key questions and consider whom you need to question to fill in information gaps.

- Keep the target respondent in mind as you weigh pros and cons of who will actually field a survey or conduct interviews or focus groups. Respondents must be approached by an organization they trust and respect. An organization with which respondents already have a relationship, such as a membership organization, is ideal. Membership organizations may already conduct regular surveys of their members and be willing to incorporate your questions into their process. Not only will this make it more likely that individuals will respond; it also may strengthen your partnership.

- Think about messages that will motivate individuals to participate and consider how their participation in the data gathering might benefit them.

- Partnerships should think carefully about who will analyze and present findings about data collected. Analysis and reporting should be performed by a reputable source that the intended audience trusts to be candid and unbiased. An academic institution may provide this neutral, objective party role. A partnership of organizations sponsoring a data collection effort may help increase trust in the results.

- All forms of data collection require resources. These include staff time and expertise to develop contact lists and data collection tools, conduct field surveys, and then compile and analyze results. It also takes time and expertise to plan, set up, and conduct interviews and focus groups, and to analyze proceedings.

- Keep in mind that survey and focus group respondents may tire of answering questions. Therefore, it is important to engage the necessary expertise to think through data collection issues before you engage respondents, so that the results provide the information that you and your partners need.
SECTION 3
BUSINESS ENGAGEMENT AND SKILLS DEVELOPMENT: BALANCING CUSTOMIZATION AND STANDARDIZATION

Addressing the gaps in workforce skills can seem like a simple process. One can simply talk to employers about what they need and then design a strategy to train people in those skills. But the actual process is usually a bit more complicated. A variety of details can make a difference in how much trainees learn by participating in a workforce program, how well they can apply those skills on the job, whether employers value the skills and credentials that may result from participating in a training program, and whether those skills and credentials provide a good basis of knowledge that an individual can build on over time as he or she progresses in a career.

The following section is based on how CTWP partners thought through some of these details and answers the following questions: How do we translate job requirements into a training program? What kinds of learning experiences will help individuals master new skills quickly? What approaches engage students and encourage training completion and skill mastery? How do we know whether students who demonstrate skill in a classroom will be able to apply skills on the job? Will the training that worked well for one company work well for another? How can a company quickly understand what a training program signifies? How can we engage more communities in our region in building workforce skills?

In addressing these questions, there often is a trade-off between standardization and customization. Customization allows a training program to target specific needs of a particular employer or set of workers and tailor a strategy to meet those specific needs. Standardization facilitates quick communication and clarity about what a product or service offers, since it is always the same, and in the case of workforce training may mean that a credential is portable across employers, since it is commonly understood. Both customized and standardized approaches incur development costs, but to the extent that a standardized approach can be used to train a greater number of individuals, the development costs may be lower on a per-trainee basis. On the other hand, a standardized approach may mean that additional resources are used to teach workers skills or techniques an employer does not need, or conversely, that there could be gaps in the training.

This section includes two plays that illustrate some of these trade-offs between standardization and customization. The first play describes “prototyping,” an approach to developing new programs. Prototyping is intentional about learning by doing. New training programs are developed and then run simultaneously with real-time assessment. A prototype program is intended to meet a specific employer’s needs through customization, but it also involves a process to raise and address issues and identify...
effective program components that can then be applied to meeting the needs of other employers in the industry. The second play highlights a more standardized education and training strategy — credentialing programs. This play highlights key questions that a regional partnership should explore as it considers whether designing a new credentialing program is the right way to make progress toward a workforce development goal. Taken together, these two plays provide insight into choices that partnerships must make as they seek the right balance between customization and standardization.

The Strategy

One of the vexing issues in workforce development is the challenge of taking small successful programs to a larger scale and embedding new programming or what is learned through experimental programming into current or new talent development systems for more systemic, lasting change. Workforce prototyping is a development- and action-based learning strategy that employers, education, and community partners can use to overcome this challenge and achieve change.

In business, a prototype takes a new product idea from design phase to early implementation to mass production. For example, a petrochemical company might initiate a prototype to increase the durability of resins used in tires and develop longer-lasting automobile tires. The company uses the prototype process to test a new resin composite design, learn from results, make adaptations based on learning, and then incorporate what works into standard operational practices and processes to achieve greater production (scale).

When applied to a workforce effort, prototypes start as small efforts engaging willing business and training partners to build a customized solution to address a workforce challenge or opportunity. The partners commit to learn from early experiences; capture what works and discard what does not; and then scale the learning and benefits to change employer, education, and workforce practices. These could be changes in industrywide training or hiring practices, changes to education approaches, or a change to policy that guides employment and training providers.

The prototype approach resonates well with businesses more often than not because business leaders understand the concept behind its application and relevance. As a business concept, it also signals to business leaders that the work is designed with industry in mind.

The workforce prototype approach is experimental and conducted at a faster pace than more typical workforce pilot or demonstration programs. Rather than attempting to pilot a new approach by implementing it multiple times and then evaluating it using standard assessment methodologies, workforce prototypes encourage creativity, innovation, and quick action in an environment in which companies need skilled jobs filled quickly, and businesses engage not only in implementation, but also in real-time evaluation of...
a strategy’s effectiveness. To make workforce prototyping successful, partners need an entrepreneurial, fast-paced, “can do, act now” attitude.

However, the larger objective of workforce prototyping is not to focus solely on solving an immediate, one-off challenge experienced by one employer. Prototyping is intended to jumpstart learning about practices that can lead to bold changes in business, education, and workforce development approaches that will last over time. It is these changes that are embedded in new systems – such as public policy supporting worker training in a new way or a whole industry changing to build and support a new pipeline of workers – that create the lasting effect of the prototype.

Example: Houston Communities that Work Partnership

UpSkill Houston used a workforce prototype approach to meet industry demand quickly while paving the way for practices that provide real economic opportunity for low-income Houston residents at risk of continuing to be left behind, even as the region’s economy flourishes. UpSkill Houston, an 11-county business-led workforce collaborative effort focused on closing the skills gap in Greater Houston, has adopted or launched four prototypes in the past year. Three of the prototypes are focused solutions to train entry-level construction workers to help address the middle-skill deficit in Houston’s industrial and commercial construction industry. The fourth is focused on addressing the middle-skill shortage in the region’s petrochemical manufacturing industry. UpSkill Houston’s main goal is to increase the number of Houstonians trained for careers in industries critical to the growth and well-being of the region.

A skilled construction workforce is central to the growth and sustainability of the petrochemical industry – an important driver of the regional economy. The industry cannot produce without the safe maintenance and operation of the complex plants and facilities that process and refine raw petrochemical products. Demand for petrochemical products worldwide is spurring construction of new plants and facilities in the region. Business leaders note that ongoing efforts to maintain safety and efficiency of existing petrochemical facilities requires skilled construction workers. For workers, obtaining basic construction skills training can offer the opportunity to build a career with a variety of paths.

UpSkill Houston’s experiences with S&B Engineers and Constructors illustrates the potential for learning and adapting new system practices through prototyping. This 4,500-employee Houston-based industrial construction firm led implementation of a Women in Construction pipefitting and safety training prototype in collaboration with the Gulf Coast Workforce Board/Workforce Solutions; the regions’ workforce investment board and career centers; and the region’s United Way THRIVE Workforce Connector, a network of community-based organizations that provide to residents job-readiness training, financial coaching, and life skills development.

S&B Engineers and Constructors sought to increase local hiring and workforce diversity and, over time, reduce its need to recruit workers from outside the region – a costly practice. UpSkill Houston partners recruited low-income, underemployed women – nontraditional workers for middle-skill jobs in industrial construction – and launched the training prototype to test and deliver an “earn and learn” model of pipefitting and safety training. S&B Engineers and Constructors invested approximately $250,000 to pay for the

---

19 For more information about Upskill Houston and the Houston CTWP partnership’s work, visit [http://www.aspenwsi.org/communities-that-work/overview/](http://www.aspenwsi.org/communities-that-work/overview/).
training and wages while in training of an initial cohort of 20 women. Gulf Coast Workforce Solutions, in partnership with S&B Engineers and Constructors, recruited applicants through the workforce system. The 20 women were hired as full-time pipefitter helpers (at a regular full-time wage of $16 per hour paid by the company with no public subsidy) and began their training.

Over four months, the workers alternated their time between pipefitting training in the classroom (that led to the industry-recognized NCCER credential) and work in the field to apply their new skills. The prototype paid workers for both classroom and work hours. The workers also took part in ongoing financial coaching and life skills supports provided by a collaborative of community-based organizations through United Way THRIVE Workforce Connector. They received mentoring from other employees at S&B Engineers and Constructors. Nineteen of the 20 women received their NCCER training credential upon completion, and S&B Engineers and Constructors hired the women into permanent positions at a wage of $18 per hour.

This training prototype has resulted in benefits for S&B Engineers and Constructors. Early results show that the company’s initial investment resulted in significant net cost savings. Savings resulted from reduced per diem travel costs for workers it would have otherwise hired from outside the region, reduced costs associated with safety violations, and increased worker productivity. UpSkill Houston’s parent organization, Greater Houston Partnership, is working with S&B Engineers and Constructors and other firms engaged in two additional prototypes to compile a business case describing return on investment that will inform additional companies in the region about the benefits of this approach to developing new skilled workers.

The prototype has been a catalyst for broader discussion and new practices among companies in the region’s construction sector. It tested an important value proposition for the industry – demonstrating that funds that would otherwise be spent to bring in workers from outside the region could be cost-efficiently redirected toward creating the more sustainable pipeline of local workers needed to support construction in the region. The prototype also helped construction companies see that effective training for their needs incorporates both work-based apprenticeship (in which they play a critical role) and career and technical training that links to industry-recognized credentials.


---

20 The NCCER pipelining credential is an industry-accredited standardized curriculum issued by NCCER, the new brand for the former National Center for Construction Education and Research.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- As you talk with business partners about long-term talent development, productivity, and retention issues, ask questions to gauge their interest in accelerating pipeline development by experimenting collaboratively with prototyping a new approach toward addressing one or some of their needs.

- Reflect on your partnership’s analysis of regional industry needs not addressed by existing local capacity and work to identify a new workforce program or practice on which you can collaborate with businesses and other partners to test.

- Vet prototyping opportunities with an eye toward identifying approaches that have the potential to be implemented at larger scale.

- Identify untapped populations of workers to find new avenues for talent sourcing in the region and build relationships with leaders of community-based organizations who have knowledge about the types of barriers these individuals may face to obtaining employment in your focus industry.

- Target and test new training linked with employer-based workforce practices on a small scale.

- Talk with business leaders about the type of information and level of rigor they need to understand the return on investment of a prototype. Business leaders typically make decisions about the effectiveness of a change based on data that reasonably indicate progress or cost savings.

- Recognize up front that prototyping will likely lead to learning that some approaches are more effective than others. Strive to cultivate a decision-making culture within your partnership that recognizes some practices will be abandoned and others deemed worthy of tackling at a larger scale.
The Strategy

Bureau of Labor Statistics data clearly show that workers with higher levels of education have greater success in the labor market (see graph). Likewise, regions with higher educational attainment among the population are generally more prosperous. Creating and supporting education and training programs that lead to education and skill credentials can be an important tool to worker, business, and regional prosperity.

In theory, all education and skill credentials represent “signaling mechanisms” that are increasingly critical to well-functioning labor markets and that equally benefit employers and workers. By carefully inspecting and exploring the full range of credential strategies, and the pros and cons of each, regional economic and workforce development leaders can avoid potential pitfalls and take advantage of available opportunities to increase employer, worker, and regional prosperity. A credential is valuable only to the extent that it is valid, shared, and transparent among partners (both workers and employers). To be valuable, a credential must attest that individuals earning it have the necessary knowledge and skills for a job or occupation. Employers must understand or interpret the credential in more or less the same way. In addition, it must be clear to workers and employers both how the credential is earned and how it relates to employment opportunity.

However, credential-based strategies for some industry sectors and occupations should be approached with caution. The experiences of the Communities that Work Partnership sites offer a number of lessons for regional leaders to consider as they explore whether to pursue credentialing as part of a workforce development strategy. We have organized lessons learned around a set of five questions that leaders should ask to frame this exploration.

---

21 Extensive research establishes the significant labor market returns to educational attainment. A recent compilation of some of this research related to postsecondary education can be found in The Aspen Institute, “From College to Jobs: Making Sense of the Labor Market Returns to Higher Education” (The Aspen Institute, College Excellence Program, Washington, DC, 2015). Related research to certificates can be found in Complete College America and FutureWorks, “Certificates Count: An Analysis of Sub-Baccalaureate Certificates” (Complete College America and FutureWorks, December 2010). Related research to licenses and certifications can be found in Stephanie Ewert and Robert Kominski, “Measuring Alternative Educational Credentials: 2012” (US Census Bureau, Washington, DC, January 2014).
The first question relates to the need to survey the regional landscape of existing educational and skill credential programs before developing a new credential to fit your partnership’s regional workforce development needs: Does a credential program related to these skill development needs already exist in my region? If one does exist, leaders should seek to understand why businesses do not know about or value the credential, or why workers have not pursued earning the credential in the numbers needed by companies in the region.

A credential in your labor market may be underutilized because it is not creating value for businesses or workers, or there may be other barriers to its adoption. Rather than building a new credential program, a more suitable response may be to focus on improving the curriculum content of the existing credential (e.g., making it more relevant to employers and workers), diversifying the delivery methodology (e.g., applying workplace and adaptive learning techniques or encouraging completion strategies), or removing access barriers that prevent its uptake (e.g., assessing program cost, transportation and mobility access, prerequisites, and scheduling conflicts).

The second question is the following: Does the credential in demand correspond to the skill needs of the job, or is it a proxy for something else employers want? Some credential requirements serve as “screeners” for skill sets that employers have difficulty articulating or identifying in job applicants. In other cases, as some researchers have identified, the practice of “credential inflation” by employers can spur ever higher credential thresholds that create artificial barriers to jobs.22

For example, employers may note a requirement for a bachelor’s degree in its want ads and job postings, but the advertised position might call for competencies that can be acquired through a one- or two-year technical education program. Employers may add these educational requirements during periods when they are flooded with job applicants. Requiring a credential is an easy way to narrow the applicant pool. When the labor market tightens, employers may need assistance in determining what kind of credential would be a better match with their skill needs. Probing to learn about the competencies needed by employers, and whether a particular program of study teaches these, can help determine whether a credential strategy has the potential to widen rather than narrow the talent pool.

---

### WHAT IS A CREDENTIAL? A Typology for the Field

**Degrees:** Two-year, four-year, and postbaccalaureate awards granted by postsecondary institutions by states or the federal government acknowledging completion of a specific program of postsecondary study.

**Certificates:** Nondegree credentials generally issued by state-approved and nationally accredited postsecondary institutions acknowledging completion of a discrete program of study leading to employment. Prebaccalaureate certificates are vocationally or occupationally focused.

**Certifications:** Awarded by third-party, standard-setting bodies – not academic institutions – based on an assessment process that recognizes competencies in a particular occupational specialty as measured against a set of standards, usually set through an industrywide process.

**licenses:** Awarded by a regulatory authority and may be required for an individual to work in certain occupations or perform certain job tasks. Acquiring a license may require examination by a licensing board of experienced practitioners. It often requires that the applicant complete a prescribed course of study and present a certificate or degree attesting to that completion.

**Digital badges:** Online record of accomplishment, skill, experience, or even simple interest granted without standardized assessment.

---

Examples: New York City and Prince George’s County, Maryland
Communities that Work Partnerships

Examples from the Communities that Work Partnership offer additional perspectives for framing issues related to the remaining three questions and thinking through the development of a credential-based strategy.

Two partnerships grappled with question three: Will credential requirements lead to unintended barriers to work for certain groups of workers in the labor market? While a credential requirement may signal an increase in worker skill level to an employer and thus increase access to jobs for some workers, it could also exclude other groups of workers for reasons unrelated to their ability to develop the skills needed for the job.

This was a concern for two CTWP partnerships, New York City’s National Domestic Workers Alliance effort that explored developing a credential for nannies and Prince George’s County’s efforts that explored creating a new credential for large numbers of laborer jobs emerging as part of a regionwide public investment in stormwater management construction projects. CTWP leaders of both the New York City and Prince George’s County efforts determined that the adoption of a formal or even implicit requirement for credential attainment among these workforces would likely narrow the opportunity for employment among large swaths of workers who have traditionally relied on employment in each sector and have proved capable of competently performing the work.

For New York City’s domestic nanny workers, CTWP leaders determined that a formalized credential could create cost, language, and regulatory barriers that would be difficult for current workers to overcome. Similarly, in Prince George’s County, leaders determined that requiring a credential of workers seeking entry-level laborer jobs might create new, possibly unnecessary, skill requirements for construction jobs. In both cases, promoting a credential-based strategy to develop the workforce would also have created significant preemployment training costs that would be unaffordable for the targeted entry-level worker population.

In developing a new credential, it is important not to overlook design elements that affect individuals’ ability to earn the credential and bring newly developed or enhanced skills to the targeted occupation. For example, the customary approach for assessing whether a trainee has learned a new skill is a written test. For trainees whose first language is not English, who have been out of school for a significant period of time, or who have not had successful school experiences, passing a written test to earn a credential can be a challenge. Similarly, many occupational credentials require an individual to spend considerable unpaid time in a classroom and studying. While tuition is often recognized as a barrier for low-income populations, the cost of unpaid class time or transportation and child care expenses incurred to be present in a classroom are sometimes overlooked or discounted. These costs can keep some of the intended beneficiaries of a program from participating and thus from having access to work.

On the other hand, design elements that allow training to be integrated with work, so that individuals can earn income while they learn, or that allow for skills assessment through demonstration, can overcome some of these challenges. The Houston partnership, for example, took an earn-and-learn approach in developing its workforce strategy for industrial construction.

23 For more information about the New York City and Prince George’s County, Maryland, CTWP partnerships’ work, visit http://www.aspenwsi.org/communities-that-work/overview/.
The fourth question to ask before developing a credential is the following: **Will training that does not result in a credential address the current need?** Partners in New York City found that nannies appreciated and would participate in opportunities to build their skills. As they explored the value of credentialing, the New York City partners learned that workers and employers believe that training and skill building have the potential to improve the quality of service for the employer, the care received by the child, and the satisfaction of the worker (who likely has a less stressful and more satisfying work experience when he or she feels able to perform the job competently), but that the creation of a credential might lead to the idea that it is a requirement. This could be counterproductive to the goal of offering opportunities for continued skill development for nannies who are already working. Neither employers nor workers viewed the achievement of a credential as necessary to encourage workers to participate and improve their skills.

The final consideration for a credentialing strategy is to think not only about entry-level workers or job seekers who may need skills to enter a new field, but also about the needs of middle-skill workers, supervisors, and managers who may need to add to their skill sets as business conditions change. The fifth question relates to this consideration: **For which level of employee in the industry would a credential be most useful?** Again, the experience of the Prince George's County partnership is instructive. The construction of stormwater management projects has the potential to create many jobs for residents, and a number of community partners have been keen to work with the county to train job seekers. As the process of designing and implementing the many stormwater management projects has unfolded, partners have learned that they first need to prepare local minority- and women-owned small businesses in the methods of stormwater abatement so that they can compete successfully for construction projects and keep work in the region. In this case, a training or certification program might be better targeted toward supervisors and managers in small companies, rather than toward unemployed job seekers. This strategy requires a different approach than traditional preemployment training strategies, which often require trainees to participate during normal working hours and use job placement as a primary measure of success. In the case of Prince George's County, the alternative approach needs to be clearly adapted to working people and schedules, and the main student interest may be in how a training certification can help a company win contracts and grow – an outcome that many workforce training providers, who are under pressure to place people in jobs, would not be rewarded for. Recognizing and resolving these tensions among partners is critical so that training resources can support both business growth and job creation as well as job access.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Determine if a credential program related to the targeted skill development needs already exists in your region. Ask questions to learn about industry knowledge relating to the program and what value it places on the credential. Probe your employer partners to explore whether they may be expressing a need for a credential as a proxy for other skills or experiences they require of their workers.

- Ask questions to learn about workers’ experiences with the credential. Try to obtain information about how many students are pursuing it and completing it, as well as information that would help you understand whether completers gain employment that requires the skills they learned.

- Engage in discussion with business and education providers about how an existing credential program determined to be valuable to business and workers might be expanded to increase enrollment and what issues this might entail. If businesses do not consider that an existing credential program to prepare graduates for employment in their industry meets their needs, try to learn (in very specific terms) why this is the case.

- Learn when community college-based credential programs undergo formal review. Most regions have a regular review schedule, and this is a good time to provide input on issues related to curriculum, instructors, teaching methods, equipment needs, and so forth that you learn through your research.

- Ask questions of businesses, workers, and leaders of community-based organizations that will help you understand whether requiring a new credential might create barriers to the labor market for specific groups of workers.

- Determine with your business and education partners if a new credential is needed to address an identified workforce skills gap or if a shorter-term training program would be sufficient.

- If a credential is the right route, conduct more research to determine how it should be designed to best fit the people who want to earn it. Consider the design, timing, cost, and length of the program; how completers demonstrate competence (i.e., written exam, completion of a program, or competency-based); and the design of supportive elements that could be necessary to ensure workers are successful (e.g., child care, transportation).

- Consider how credentials programs (either existing or new) incorporate strategies that help students make connections to employment, potentially through work-based earn-and-learn approaches such as internships or apprenticeships.
SECTION 4
BEYOND JOB-SPECIFIC SKILLS: ADDITIONAL STRATEGIES FOR IMPROVING THE TALENT PIPELINE

The nature of work is changing, and many workers need to learn new skills in order to succeed in today’s world of work. But for regions considering how to support workers seeking to learn and apply new skills, some complementary efforts may be needed.

Effectively reaching and connecting untapped sources of labor to work requires understanding the full range of barriers that individuals face, as well as expanding how the responsibility for talent pipeline development is considered. Because the types of resources and actions needed to help businesses build and maintain a qualified, stable workforce go beyond what the public sector can reasonably be expected to supply, engaging business in creative thinking about approaches to address its workforce challenges is the only approach that has the potential to succeed at any scale or over time in changing labor market conditions.

Organizations with expertise in identifying individuals’ barriers to obtaining and retaining employment can be critical partners in helping surface challenges and identify needs and potential resources and solutions. Businesses also have a critical perspective on how these issues play out at work, what they mean in terms of business expense, and how businesses can contribute to a shared solution. Partnerships that bring employers together with workforce and community-based organization leaders can both ensure that limited public resources are combined and deployed in ways that are not duplicative, and maximize deployment of local workforce talent.

This section highlights two plays based on Communities that Work Partnership experiences. The first play explores the role of human services in helping people manage their lives and support successful transition to work. Many people struggle with limited resources, and sometimes a minor amount of assistance with child care, living expenses, or other issues can make a major difference in a person’s ability to learn and connect to work successfully. Regions that offer training opportunities but do not go the extra mile to make sure that these skills can actually be connected to companies that will value them may be leaving pools of talent untapped.

The second play explores the issue of the changing economy and the rise of independent work. For many workers, this means needing not only skills upgrades to remain relevant, but also a variety of business skills to keep themselves working and build a sustainable career.

In both of these plays, we highlight the need for an integrated approach that pulls ideas from many different actors to address a critical workforce need and move business, workers, and the regional economy forward.
The Strategy

Workforce skills are an essential component of employment success, and most talent development strategies understandably focus on helping individuals build skills and qualify for jobs. In some cases, however, strategies to help workers build skills might not be enough to develop effective talent pipelines. Transportation challenges, lack of access to affordable child care, and other barriers can keep skilled workers from bringing their talents to work. Workers who have experienced unemployment or who are new to the workforce frequently have little in the way of savings or personal support networks that can provide support. Without a financial cushion or friends or family who can help, a seemingly minor life event such as a brief illness, a flat tire, an increase in bus fare, or a change in school schedule can easily derail an individual's transition to work. Thus many workers who come from poor communities may not be able to manage a setback and retain a new job. Helping businesses recognize that the workforce they want to access may have broader needs than skills development is an important step toward developing talent pipeline strategies that have the potential to meet the needs of both businesses and local community residents.

Example: Houston Communities that Work Partnership

Many community leaders seeking to connect local residents to good jobs recognize the challenges that low-income workers and job seekers face in managing transportation, housing, child care, and other basic expenses. However, these issues are usually seen as something to be addressed by social services agencies, rather than discussed with employers and dealt with in the context of a workforce strategy. The Communities that Work Partnership in Houston, however, took a different approach. As described in the “Use Workforce Prototyping” play earlier in this publication, UpSkill Houston, a business-led workforce effort focused on training Houstonians for careers in industries critical to the region’s economy, developed a prototype workforce approach to address talent pipeline needs for a large industrial construction firm.

Training was of course a key component of preparing new workers for unfamiliar work, but in order to successfully bring in the local workers they sought, the partners recognized the need for additional strategies. They combined public and nonprofit resources together with employer resources in a complementary way to develop a new, successful talent pipeline. The workforce agency used its resources and community-based networks to quickly recruit and screen residents to find those who were a good fit for the opportunity. The United Way THRIVE Workforce Connector was engaged to integrate financial coaching and counseling into the program to help trainees manage their income and make financial plans for saving to build a financial cushion for emergencies. In addition, the United Way brought connections to a collaborative network of nonprofits that could

---

24 The Communities that Work Partnership in Houston included the Greater Houston Partnership (a leading business organization in Houston and home to the UpSkill Houston initiative), the United Way of Greater Houston, San Jacinto College, and Gulf Coast Workforce Solutions.
offer personal counseling and emergency assistance with a variety of needs as the participants progressed through the four months of integrated training and work. The result was an approach that offered not only high-quality training, but also necessary income and access to emergency supports, which helped with both training and, importantly for the employer, employment retention. The focus on financial skills development is hoped to position the trainees for long-term success.

Example: Prince George's County, Maryland Communities that Work Partnership

In Prince George's County, Maryland, the Clean Water Partnership has a goal of connecting county residents, in particular unemployed young adult and formerly incarcerated residents, with jobs that are being created as the county makes a significant investment in building the infrastructure needed to protect the Chesapeake Bay from pollutants in stormwater runoff. Initially, partners considered building a training program, perhaps in collaboration with the local community college, to teach the skills needed for the jobs created by local businesses contracted to do abatement projects. However, in working with community groups, partners have learned that assistance with challenges that keep residents from being work-ready may be more critical than training for many of the new construction laborer jobs. For example, workers need help to purchase work boots and appropriate clothing, to access transportation to and from job sites, and to access health care services.

Although skills training may be useful for workers who seek higher-level employment in abatement work, there appears to be demand for large numbers of new workers who are fit for general labor and can be trained on the job. Requirements for technical training could, in fact, present a new barrier to individuals who lack the language, literacy, and numeracy skills or the financial resources to persist and succeed in an unpaid classroom-based program. Developing a partnership that includes employers who are specific about work requirements and community partners who articulate the challenges residents might face in succeeding in new work has been key to developing and implementing an effective workforce development strategy.

The county is currently working to estimate the number and types of jobs that will be created as the infrastructure projects roll out, as well as the timing of these projects, so that they can phase and scale an appropriate workforce strategy. The county is also considering how to address the issues that keep residents from obtaining and retaining employment. For example, while it is now better understood among project partners that many returning citizens lose access to medical care and prescription medicines when they leave prison, partners have not yet found a community partner or funding source that can help fill this gap so that formerly incarcerated individuals can maintain their health and connect to and retain work. Challenges in finding resources for these types of supports are common to many communities, but recognizing and communicating about the challenge among project partners who are interested in the success of the effort is a first step toward finding a solution.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, think about the following action steps:

- Ask questions to learn from businesses, in very specific terms, about their interest in expanding their talent pipeline to include populations they might be unfamiliar with or have had limited success employing in the past.

- Provide a forum for understanding the different motivations of partners as an important first step toward developing a shared agenda based on realistic expectations about contributions necessary to develop effective talent pipeline solutions.

- Work with community-based organization leaders to develop an understanding of non-skill-related factors that affect new workers’ performance and retention.

- Talk with business partners about the challenges they have with workers. Try to take a “deep dive” with them to surface what might be root causes of these challenges. For example, a common problem such as poor attendance or punctuality by a new worker could be the result of a number of issues, including something as simple as misalignment of work start times with public transportation schedules.

- As you discuss these types of challenges, discuss whether there are factors that businesses might play a role in addressing. Determine whether there are other community actors who could be involved in designing and implementing solutions. Explore the types of resources that are available in your region to finance solutions.

- While public and community-based leaders have a strong interest in promoting employment of local residents, keep in mind that developing a stable and qualified workforce is ultimately a business problem. Therefore, solutions that involve public investment should be designed not only with an eye to how they help promote opportunity for local residents, but also with a focus on helping businesses understand how and why they should contribute.

- It is important to help businesses understand and articulate costs related to managing their workforce. Activities related to managing employee turnover, such as recruitment and training, have financial costs, but they also affect productivity. This is the context within which businesses consider the potential benefits of investing in workforce development strategies.25

---

25 Detailed information and tools to guide discussion with business leaders about the costs associated with their workforce challenges and potential value of workforce services are available at http://www.aspenwsi.org/research-resources/value-to-business/.
The Strategy

In addition to equipping workers with the specific skills they need to succeed in a job, workforce development strategies should also help workers build the skills they need to both find a job and build relationships and professional networks that will help them maintain employment. Important labor market navigation skills vary depending on the industry or occupation that is the particular focus of a workforce strategy. For example, in construction employment, workers frequently move from job to job and may also have periods of unemployment between jobs. In response, thoughtful workforce development strategies include services designed to teach participants how to understand the different hiring processes construction firms may use, how to build good relationships within the context and culture of a construction job site, and strategies for managing income variability. These skills are important to a construction worker’s ability to maintain employment. Similarly, initiatives focused on health care jobs or IT jobs will provide guidance about how to find jobs, maintain employment, and build a work life in those industries. Given that we no longer live in a world in which an individual will spend most of his or her working life with one company, helping workers develop their capacity to not only find a job but also find subsequent jobs is an important part of a regional workforce strategy.

While labor market navigation skills have been growing in importance for the past several decades, recent growth in alternative employment arrangements are elevating the importance of these skills. On-demand or 1099 employment is a growing segment of the American labor market and is changing the way millions of Americans work. Estimates vary widely, but recent research by economists Alan Kreuger and Larry Katz reports that 15.8 percent of the workforce is made up of contingent workers such as contract workers, freelancers, and workers at on-call or temporary staffing agencies.26 Recognizing the growing importance of this segment of the nation’s workforce, the US Bureau of Labor Statistics announced that it will include a focus on contingent workers in a 2017 survey and has hopes to continue gathering data about contingent workers beyond 2017.27

Given that contingent, 1099, and freelance workers in the United States do not have what we traditionally think of as an employer, they need skills that are more often associated with entrepreneurship to find and maintain work. For example, workers need to be able to promote their services and market themselves, explaining to potential employers how they can provide value. They need to understand tax obligations and reporting requirements, and other legal issues that are relevant to this type of work. They also need to understand how to predict costs and predict revenues, and how to negotiate a price for their work.

The incidence of freelance or independent work varies across industries, with some industries having a particularly high reliance on this form of work. In the Communities that Work Partnership, two sites focused on industries that have large numbers of independent workers. In San Francisco, the partners focused on IT-related employment, much of which is done by independent workers. In New York City, partners focused on caregivers, and specifically nannies, who frequently work independently for private individuals. While these occupations are very different in terms of the technical skills and the conditions of the work, some of the labor market navigation skills, and the need to be able to manage oneself as a business, are similar.

If employment trends continue, more and more workers will fall into the category of contract, contingent, or 1099 employment in the future. In addition, as workers change jobs, some may go in and out of contingent work arrangements. Likewise, businesses may increasingly rely on contract or contingent workers for certain kinds of work. Thus, while the need for labor market navigation and entrepreneurial skills among freelance workers may seem particularly acute, some of the same skills could have relevance for a broader set of workers.

Example: San Francisco Bay Area Communities that Work Partnership

In the San Francisco Bay Area, IT firms rely heavily on freelancers, and leaders of the public workforce system are collaborating with community-based organizations and business to explore how the public sector can adapt to meet critical skill development needs. The issue of skills development for freelancers working in the IT sector is the focus for the Communities that Work Partnership in the San Francisco Bay Area, and partners engaged in this work include BAVC, the San Francisco Office of Economic and Workforce Development, Silicon Valley/San Jose Workforce Investment Board, and CBS Interactive.

As described above in the play “Include Local Workers’ Perspectives in Data-Gathering Efforts,” CTWP partners in the Bay Area conducted extensive data gathering with both freelancers and the companies that hire freelancers, and they learned that most freelancers understand that they need business skills but report feeling ill-prepared to be a business owner and would like help with branding, networking, and maintaining consistent work. Freelancers also report being uncomfortable with their knowledge of the legal “ins and outs” needed for negotiating contracts.

Bay Area partners have also learned that the go-to tools of the public workforce system, such as preemployment job search assistance, Individual Training Accounts for skill development, and incumbent worker training services designed for traditional W-2 employees, do not fit the work situations of freelance workers. However, the partners’ experiences with a pilot project they conducted with a flexible Department of Labor Workforce Innovation Fund (WIF) grant are instructive.

Work funded by the WIF included workshops developed by BAVC on technical, networking, and business skills, and facilitating informal networking events through a Nerd Underground program that offered freelancers opportunities to build new contacts, meet collaborators, learn about local business opportunities, and share information about managing freelance self-employment. Based on these experiences, Bay Area partners are developing short “boot camp”-like training workshops that will be easier to fund within
the current public funding structure. In addition, they are considering reengineering job placement, retention, and advancement services such as job fairs, job developer referrals, and alumni support groups [that are allowable under current guidelines] into the type of informal networking events that freelancers have noted are helpful. The pilot experience was important for learning about how to design services specifically to meet the new kinds of labor market navigation needs of workers without a formal employer. It offered useful insights for how some of those elements can be sustained within current funding guidelines while also offering policymakers insights about what skills workers might need to find and maintain employment in a changing world of work.

Example: New York City Communities that Work Partnership

In New York City, a partnership made up of leaders from the National Domestic Workers Alliance (NDWA); the National Employment Law Project; and Hand in Hand, a national network of employers of domestic workers, is building workforce development strategies to improve job quality for nannies who work in private households. CTWP collaboration began when these organizations worked together to advocate for passage of the New York State Domestic Workers Bill of Rights, which granted domestic workers the right to overtime pay, a day of rest every seven days, and other labor protections from which they had previously been excluded. Although the law was key in advancing public understanding of the importance of quality working conditions for caregivers, partners recognized that enforcement of the regulations would be quite challenging. Given that dynamic, the partners focused on workforce development-based approaches that support both nannies and their employers in achieving greater clarity on employer and worker responsibilities and improving both job quality and the quality of child care delivered.

Partners worked to provide training and tools to nannies to work toward these goals. Included in the training were workshops NDWA developed that help nannies develop skills in negotiating their employment terms and working conditions. These sessions also help nannies develop the confidence and communication skills they need to articulate their value to employers. NDWA provides tools such as sample contracts to nannies, and it helps them understand the laws that regulate their employment. While these activities are geared toward helping nannies, they also help employers, many of whom report feeling awkward when discussing employment terms and are also unclear about what rules apply to this employment situation. In fact, an important goal of Hand in Hand’s work is to develop strategies to promote understanding among employers of domestic workers that they are in fact employers and their homes are workplaces.

While understanding caregiving techniques and how to improve as a caregiver is also supported by the partners in New York City, CTWP partners report that the skills of negotiating employment terms and communicating the value of the services one provides have been important to developing successful employment situations for care workers in New York.
Action Steps for Applying This Strategy in Your Region

As you consider this strategy for your region, explore the following action steps:

- Identify the strategies that workers in your region will need to get a first job and a subsequent job, and to maintain employment in a target industry. To what degree will workers need to market their skills and abilities on a regular basis? What do they need to know about setting prices or legal issues that may need to be managed?

- Get a sense of the number and type of contingent or contract workers you have in your community. Develop a forum or mechanism through which these workers can express what they need from workforce and economic development service providers.

- Identify organizations with expertise in working with entrepreneurs in your region. Consider partnering with a small business development or microenterprise organization to design workshops, tools, and services geared toward contract workers’ needs.

- Think broadly about the types of skills that might help a contract worker. In addition to business management skills, they need to develop financial management skills and access to appropriate financial products so they can manage income volatility, as well as training to manage the requirements associated with estimating taxes, preparing tax returns, and understanding reporting requirements associated with being a 1099 worker.

- Engage businesses that contract with 1099 workers in your region. Identify any concerns they may have regarding this workforce and engage them in building solutions that work for their businesses and the freelance workforce.
**FINAL THOUGHTS**

The purpose of this playbook is to advance a field of practice – developing talent pipelines that support economic development of regions, industries, and people. This playbook compiles distinct strategies, or plays, based on the experiences of seven regional teams working to align and advance their economic development and workforce development efforts as part of the Communities that Work Partnership. The seven teams include relatively new collaborations, as well as groups that have been working together for a number of years. Our economy and society are changing, and with those changes come new and different challenges that workforce and economic development organizations must respond to. Thus the plays are reflective of the experience in an evolving and changing field of practice.

The work of these local partnerships could not be more important. Building the conditions for companies and regional economies to thrive and connecting people to work that provides an opportunity to connect to the economy and build a successful livelihood are the central concerns of many leaders across the country, who are worried about the current economic state. The issues are often discussed nationally, but the work of these partnerships highlights the specific details and challenges that must be dealt with locally to create the conditions to move ahead.

The work of these partnerships does not address every issue or challenge that will arise in building successful workforce development and economic development partnerships, but rather offers experiences that can be built on as the work moves forward and continues to respond to a changing economic and social landscape. We hope you use the playbook to advance your own local work toward creating a strong, prosperous economy that works for everyone, and that you find the plays supportive of your efforts. If you have experiences to share that would benefit others engaged in this important work, we are eager to hear about them. You can contact us at wsi@aspeninst.org.
Missouri Sector Strategies and Workforce Development Planning Project:

Final Report

August 2016

Submitted to:
Missouri Department of Economic Development.
Division of Workforce Development

Submitted by:
3535 Route 66, Bldg. 4
Neptune, NJ 07753
732-918-8000
www.mahernet.com
Table of Contents

I. Introduction .......................................................................................................................... 3

II. Project Overview .................................................................................................................. 5

III. Overview of Work in Each Region ....................................................................................... 10

   A. Northwest Region Summary Report .............................................................................. 11
   B. Kansas City Region Summary Report ........................................................................... 16
   C. West Central Region Summary Report ......................................................................... 22
   D. Southwest Region Summary Report ............................................................................. 29
   E. Ozark Region Summary Report ..................................................................................... 33
   F. Northeast Region Summary Report ............................................................................... 38
   G. Central Region Summary Report ................................................................................ 43
   H. South Central Region Summary Report ....................................................................... 47
   I. St. Louis Region Summary Report ............................................................................... 52
   J. Southeast Region Summary Report .............................................................................. 57

IV. Project Observations and Opportunities ............................................................................. 63

V. Recommendations ............................................................................................................... 66
I. Introduction

The passage of the Workforce Innovation and Opportunity Act (WIOA) has been a catalyst for innovation as states and regions move to implement the Act’s changes to the its workforce development systems. The State of Missouri sought to ensure, through this project, that its system’s transformation included an emphasis on industry sector strategies and regional workforce planning, leading to an employer-driven approach that would better meet the needs of employers and job seekers alike.

Sector strategies — regional, industry-focused approaches to building skilled workforces — have proven to be one of the most effective ways to align public institutions and agencies with industry to address the talent needs of employers and provide better career opportunities for workers. However, sector strategies are not “another program.” Done well, they are truly transformative. When fully implemented, sector strategies become the strategic lens through which regional talent development is carried out and the operational framework for workforce development services.

When paired with integrated career pathways tied to targeted sectors, as Missouri is clearly seeking, sector strategies create skilled pipelines of talent for employers and offer enhanced career development avenues for workers.

The challenge of building support for sector-based service delivery throughout the state should not be underestimated, however. It is important to develop a culture that embraces sectors and that helps all partners and levels of the workforce system see their role and positively engage with the change from a largely transactional and labor exchange-focused approach to workforce development. The focus of this project was to “move the needle” in each region as it relates to sector strategies.

The Missouri Division of Workforce Development (DWD) engaged Maher & Maher in August 2015 to facilitate interdisciplinary public/private regional teams through a process that planned for, built, and began to implement a sector strategy framework in each of the state’s ten
regions. In its 30th year of operation, Maher & Maher is a specialized change management and talent development consulting firm that delivers tailored solutions to public sector organizations and commercial clientele. Maher is based in New Jersey and also has offices in Washington, DC. Our team has provided subject matter expertise and facilitation of teams from Missouri’s ten regions through the process described here.

This report serves as the final deliverable of this project and aims to:

- Document the scope, process, and activities of the project;
- Summarize the work completed in each region;
- Make recommendations for moving sectors partnerships and career pathways forward; and
- Identify challenges and opportunities identified during the course of the project.
II. Project Overview

Maher & Maher was engaged to facilitate interdisciplinary public/private regional teams through a process that would help team members understand, prepare for, and begin to implement sector strategies. Regions were in various places on the continuum of sector strategies – ranging for no existing sectors work to at least one region with a very developed sector strategies framework.

The Missouri Division of Workforce Development was the project sponsor and, along with the Workforce Investment Board of Southeast Missouri and the project Steering Team, provided operational and strategic direction to the Maher project team.

While the bulk of the project involved work with the ten regional planning teams, several activities were completed at the state level. State-level activities included:

a. Creation of state-level Steering Team

- At the outset of the project, DWD formed a Steering Team comprised of key executives and staff of the agencies involved in Missouri’s talent development system; other public stakeholder representatives from the state, regional, and local levels; and private sector representatives. The Steering Team’s role was to provide leadership and to ensure that recommendations accepted by the Steering Team at the conclusion of this project are implemented. The Steering Team convened on September 29, 2015 in Jefferson City for a sector strategies overview and discussion of project goals and activities. The Steering Team also reviewed and adopted a project charter, which outlined the vision and mission of the project; the roles and responsibilities of the Steering Team, Regional Teams, and Maher Team; and the deliverables and timeline of the project.
The Steering Team met again virtually on October 20, 2015 with Maher and members of the Data Team (described below) to review the state-level target industry analysis completed by the Data Team and approve their recommended target industries.

The Maher team provided project updates to the Steering Team by email several times and three presentations on the project were given to the Missouri Workforce Development Board during the course of the project.

The Steering Team will meet one more time, on July 26, 2016, to review, refine, and adopt the final recommendations of this project.

b. Creation of state-level Data Team

Because completing a data analysis of target industry clusters for the state and each region was a foundational step in this project, and in sector strategy development more broadly, a state-level Data Team was created. The Data Team’s role was to ensure that all partners’ data efforts are fully leveraged and that the entire project team was operating from the same information. The Data Team, generally comprised of representatives from all statewide partners that maintain economic, workforce, education, and other data critical to the design and implementation of industry sector and career pathway strategies, included the Missouri Economic Research and Information Center (MERIC), the Missouri Partnership, the Missouri Department of Higher Education, State Fair Community College, St. Louis Community College and a local workforce area.

Using our Consensus-Based Decision Making Model, pictured here, the Data Team analyzed industry cluster data provided by Scott Sheely, a member of the Maher project team, and recommended statewide target sectors, which were presented to and approved by the Steering Team on October 20, 2015. They included Diversified Manufacturing (Metal, Food, Lumber and Paper, Chemicals); Health Care; Financial and Professional Services; Information Technology; Transportation and Logistics; Energy Solutions; and Biosciences. Key criteria that supported the selection of these sectors included competitive advantage as
measured by location quotient, growth as measured by projected increases or decreases in employment, size of the cluster, and additional inputs including previous reports and other policy considerations.

c. **Sector strategies toolkit content for website**

The DWD team created a sector strategies section on the jobs.mo.gov website and our team has been populating it with project resources and best practices related to topics such as sector strategies, career pathways, regional planning, and business engagement.

The vast majority of work in this project was focused at the regional level. Regionally-focused activities included:

a. **Creation of Regional Planning Teams**

Maher facilitators worked with local workforce area directors (the points of contact for each regional planning team) to form and prepare ten regional teams for the October 28-29, 2015 Statewide Launch Meeting. Facilitators provided recommendations for membership on the regional planning teams, facilitated team calls, and coordinated the distribution and completion of a self-assessment exercise in advance of the Statewide Launch to objectively assess regions’ readiness to plan and implement sector strategies.

b. **Statewide Launch Meeting at the Lake of the Ozarks**

The Maher team, in collaboration with DWD, planned and facilitated the Statewide Launch Meeting at the Lake of the Ozarks in October 2015. The objectives of this meeting were to:

- Give regional partners a facilitated, dedicated space to come together to advance their sector-based planning activities;
- Review regional data analysis and make initial decisions on regional target industry clusters;
• Prioritize sector-based opportunities, needs, and action items, based upon regional SWOT analyses and regional team self-assessment activities; and

• Begin to craft regional team action plans and position regional teams for ongoing collaborative planning work.

c. Regional Industry Cluster Data Analysis and Final Report

The Maher team developed comprehensive regional industry cluster data packages and final reports for each of the 10 regional teams. The analysis included data for 23 clusters by region and looked at data points including location quotient, current jobs and establishments, projected job growth, earnings, largest industries, highest paying industries, fastest growing industries, and top 100 occupations.

The Maher team also provided additional target cluster staffing pattern data to each regional team and provided teams with technical assistance on using staffing patterns and integrating them with the career pathways information provided in October 2015. We hosted a webinar on using staffing pattern data to support career pathways identification and development for regional teams on December 17, 2015.

d. Regional Launch Meetings

Maher facilitators supported regions in their planning work over the course of the project in a variety of ways, which are described in the next section of the report. Our team also facilitated and/or otherwise supported a number of Industry Launch Meetings. Launch meetings were designed to formalize regions’ work with target industry clusters, solicit input from industry cluster representatives, and use that input to develop responsive strategies for action. Some regions chose to hold team meetings or other sessions during the project, with plans to host Industry Launch Meetings in the future. The following table lists the target industry cluster selected by each region to work on as well as their Launch (or other) meeting dates.
<table>
<thead>
<tr>
<th>Region</th>
<th>Primary Target Industry Cluster(s)</th>
<th>Launch Meeting Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Central</td>
<td>Diversified Manufacturing</td>
<td>April 12</td>
</tr>
<tr>
<td>Southeast</td>
<td>Diversified Manufacturing</td>
<td>April 26 (Perryville) and 27 (Sikeston)</td>
</tr>
<tr>
<td>South Central</td>
<td>Diversified Manufacturing</td>
<td>None</td>
</tr>
<tr>
<td>Northwest</td>
<td>Manufacturing</td>
<td>June 22 (team meeting)</td>
</tr>
<tr>
<td>Northeast</td>
<td>Manufacturing/Metal and Metal Fabrication/Welding</td>
<td>June 23-24 (team meetings)</td>
</tr>
<tr>
<td>Central</td>
<td>Advanced Industries</td>
<td>June 29</td>
</tr>
<tr>
<td>St. Louis</td>
<td>Diversified Manufacturing (aligning with St. Louis Partnership project)</td>
<td>TBD (likely late summer 2016)</td>
</tr>
<tr>
<td>Kansas City</td>
<td>IT, Logistics, Healthcare/Bioscience, Financial Services, Advanced Manufacturing, and Construction</td>
<td>Kansas City hosted 13 industry listening sessions across the region</td>
</tr>
<tr>
<td>Southwest</td>
<td>Manufacturing (current focus), Healthcare, Professional Services, Information Technology, Construction, and Transportation</td>
<td>None</td>
</tr>
<tr>
<td>Ozark</td>
<td>Healthcare</td>
<td>TBD</td>
</tr>
</tbody>
</table>

e. **Career Pathways Webinar**

On June 2, 2016, the Maher team delivered a webinar on how to use data and employer input to understand and map career pathways in regional target sectors and work with education, training, and other partners to align programming and services to pathways.
III. Overview of Work in Each Region

Each region was assigned a Maher facilitator who provided support to the regional planning team point of contact and other team members on sector strategy-related activities. Due to the diverse circumstances in each region, either related to the region’s pre-project work/experience with sector strategies or other factors, facilitators provided a wide range of assistance and resources. Project work was customized to the greatest extent possible while still maintaining the integrity of the scope of work.

This section of the report includes a description of the work done in each region:

- Team/Planning Development Process: Team formation; regional planning process and progress.
- Target Industries: Initial focus sector, and additional sectors for later focus; how sectors were chosen.
- Key Goals: Priority goals now and moving forward, and how they connect to the region’s recognized challenges and opportunities.
- Deliverables: Products created for region and major activities pursued with the region.
- Recommendations: Facilitator recommendations for the regional team’s next steps and continued progress.
A. Northwest Region Summary Report

Team/Planning Development Process

Prior to the statewide launch of the sector strategies work, many of the Northwest Regional Team members were active in the Community Foundation of Northwest Missouri’s work on regional vitality. Through that initiative, they were already working together in the areas of quality of life, education, workforce development, economic development, business development, and business startup and entrepreneurship development, all key dimensions of regional economic competitiveness. That work was scheduled to continue on, so there was interest in aligning the regional vitality work with the emerging regional sector work.

Public sector partners on the Team include workforce development, vocational rehabilitation, adult education and literacy, the Family Support Division, economic development, post-secondary education, and Community Foundation board members. Team members were very engaged in sharing their insights on the region’s economic challenges and how sector work could benefit all of the partners and the region more broadly.

During the Statewide Launch meeting, the Team reviewed customized and in-depth labor market information as well as economic development information about their region from the recent report completed by the Community Foundation of Northwest Missouri and state-supplied LMI. The team found the target industry cluster data provided by Maher & Maher to be very comprehensive, though they needed more time following the Statewide Launch to review and discuss it.

During the Statewide Launch meeting, the Team completed a SWOT analysis to identify their strengths, weaknesses, opportunities and threats. The SWOT analysis reflected their strongest industries as manufacturing and agriculture and identified the importance of training to keep higher-paying jobs in the area and to reduce “brain drain.” The Team also completed a self-assessment and identified their strongest area as being drivers of strategic partner alignment and their biggest challenge as ensuring measured, improved, and sustained industry sector strategies.
Target Industries

The Team relied on studies completed by the Northwest Community Foundation and the Region’s TAACCCT grant applications in health care and manufacturing as sources for identifying the leading industry clusters in the Northwest region. The Team decided to focus on health care, agriculture production, food processing, metals and metal fabricating (manufacturing), and biotechnology. The manufacturing industry was identified as the Team’s primary focus for initial sector work since the Region has already started working in that area through the manufacturing TAACCCT. Construction trades were also discussed and listed as a potential additional focus area in the future. During the Statewide Launch meeting, Northwest Team members were very eager to understand and analyze the industry cluster and LMI material provided and noted that they would need additional data analysis and staff assistance moving forward in order to make the most of the information.

Key Goals

The Northwest Regional Team’s discussion was focused on developing clear goals for sector strategies work that would align with and enhance the priorities of business in key regional industries and of regional partner organizations and that would further sector work already underway in the region.

In its summary of the October 2015 Launch meeting, The Northwest Team articulated a guiding vision and overarching goal for its sector work: *Northwest regional partners will work together to identify industry needs for workers with specific skills, education, and credentials and to ensure that educational and training opportunities are aligned to those needs and available to job seekers.*

The Northwest Workforce Development Board agreed to act as the convener of the regional team, bringing together regional stakeholders, facilitating dialogue with industry leaders to articulate their workforce needs, and building on the sector momentum underway through the region’s TAACCCT manufacturing grant. They agreed that they would develop a draft action plan outlining key goals for the Team’s review and they completed that draft plan in January 2016. Since that time, they have focused on engaging in technical assistance activities to support them in the finalization of their action plan over the next year.
Deliverables Created for Region

The team's facilitator developed or shared the following items with the team:

1. Initial and additional data on the region’s clusters, staffing pattern data, interstate labor market commuting pattern data, and occupational data
2. Samples of employer surveys used in other Missouri regions
3. Information on competency-based training models and engaging employers in sector work, following a literature review

In addition, these template/examples were shared with the Northwest regional team over the course of the project:

1. Project plan template to guide the team’s and facilitator’s work during the project;
2. Team meeting agendas and notes;
3. Updated regional plan framework to reflect team discussions following the October 2015 statewide launch meeting;
4. Asset-mapping template; and
5. Materials and other deliverables related to industry launch meetings, such as invitation language, a sample agenda, a sample participant handout, and other materials.

Finally, the Maher & Maher facilitator conducted an in-person visit with the team on June 22, 2016, which was a key project activity. The Team had planned to host a regional industry launch in June 2016, but postponed those plans in order to complete the WIOA regional planning process. The Team plans to hold a launch for the next iteration of its manufacturing sector work at the Workforce Development Board retreat in September 2016. The June meeting with the facilitator focused on preparing for the September meeting and reviewing various materials provided throughout this project. The Northwest Team is especially interested in the Southeast Missouri region’s industry launch approach (the Southeast Team held its two launch meetings in April 2016), and would like to engage both June O’Dell from the Southeast region and Jasen Jones from the Southwest region to serve as speakers at the September Board Retreat. During the June meeting with the facilitator, the Team also reviewed sample employer surveys provided and had a productive discussion around their sources of real-time, employer-based information.
Recommendations

1. The Northwest Team has many sources for real-time, employer-based data on manufacturers but the data has not been organized, synthesized, and summarized. The Team should review the data they currently have and summarize what is known and what is still in question about the training needs of manufacturers for review and discussion with the employer community.

   For example, the Northwest region recently completed a two-year TAACCCT project that was focused on manufacturing. In the TAACCCT work, a group of regional manufacturing businesses was very active in the Advisory Board and in prioritizing the work of the TAACCCT grant. In addition, the Northwest region recently completed an application for a Tech Hire grant focused on manufacturing and during that process, employers were interviewed about their priorities for next steps for workforce development. The Northwest region also recently completed a TAACCCT grant proposal for STEM occupations that proposes surveying employers, including manufacturers. All of these inputs, combined with recent data-driven WIOA regional planning activities and the data the Team received during this project, will be useful in the creation of a comprehensive and up-to-date picture of the needs of employers in the manufacturing sector.

2. A key focus of the manufacturing launch meeting at the September 2016 Workforce Development Board retreat should be reviewing, validating, and refining the themes and recommendations discussed in this summary report.

   The Northwest Workforce Development Board is the logical organization to convene the regional Team’s discussion of their next steps in furthering their sector work. The working relationships among Board staff, economic development, and community colleges are excellent and Board staff have the convening and facilitation and convening skills to move the sector work forward successfully. A key focus of the September meeting should be reviewing, validating, and refining the themes and recommendations contained in this report with private and public sector partners.

3. After the September Board retreat, the Team should update its January 2016 action plan to ensure it reflects any new information and current priorities.
The current action plan is a comprehensive work plan to move forward on sector work through the spring of 2017. The activities and timeline sections have been evolving and will benefit from a revision to reflect ongoing regional discussions, new data, and current strategic priorities.

4. The Northwest Team should continue to work closely with other Missouri sector strategies teams in neighboring regions, particularly Northeast Missouri.

Northwest’s Team is eager to learn from its peers and to continue its excellent working relationship with MERIC staff, who provided valuable assistance. The Team has worked especially closely with Northeast Missouri as their two regions are similar and comprise the northern one-third of the state. The Team should also continue to work with peers in other states when labor shed issues are shared across state lines, as they are among the Northwest region, Iowa, and Kansas.
B. Kansas City Region Summary Report

Team/Planning Development Process

The Kansas City region is made up of two local workforce boards: Kansas City & Vicinity (KCV) WIB (Kansas City, Missouri, and Cass, Clay, Platte, and Ray Counties in Missouri) and Eastern Jackson County (EJC) WIB (Independence, Missouri and areas in Jackson County outside of Kansas City). The Kansas City Regional Team came together at the Statewide Launch meeting on October 28-29, 2015 as a consortium of partners representing the two local workforce boards, community colleges, adult education, and vocational rehabilitation.

The two LWIBs share a director, Clyde McQueen, who is the President and CEO of the Full Employment Council, Inc., the fiscal agent and one-stop operator for both LWIBs. The region, through the leadership of the Full Employment Council, was engaged in several sectors strategy activities prior to this project including the HPOG (Health Profession Opportunity Grants) Healthcare Apprenticeship Program, which provides on-the-job training for nursing assistants.

Prior to attending the Statewide Launch meeting, the members of the Regional Team completed self-assessments which were then reviewed and discussed at the in-person meeting. The debrief discussion on the self-assessment and asset mapping process was one of the most beneficial portions of the group’s efforts at the statewide meeting. Each team member shared information about regional sector activities and programs, which later allowed for a thorough discussion of their regional strengths, weaknesses, opportunities, and threats.

At the October meeting, the Regional Team also reviewed the Maher regional data report and, after robust discussion regarding the concentration and competitiveness of various industries in the region as well as career pathway opportunities in those industries, the Team decided to focus on the Transportation, Distribution, and Logistics industry as their initial target industry cluster. The Team developed action steps to move work in this target cluster forward. However, in early 2016, the workforce boards decided to build upon the sector initiatives started before this project and focus on five industry sectors: Advanced Manufacturing, Distribution & Logistics, IT, Finance, and Healthcare.
Target Industries

The team initially determined at the statewide meeting that Transportation, Distribution, and Logistics was their primary targeted industry based on the following factors:

- High competitive advantage, high demand occupations, and wages.
- The job growth data and skillsets needed were prevalent across the region and would provide targeted populations, such as formerly incarcerated individuals, access to these career pathways without some of the additional barriers they face in other sectors such as financial services.
- This industry cluster would be the first time the region looked to build this sector to scale across partners, and therefore would provide new opportunities to customers and partners. This initiative would allow other partners not previously involved in the sector initiatives to develop their skillsets and capacities in building regional partnerships to scale. This approach would also increase the level of buy-in among partners in forming truly collaborative approaches.

In early 2016, however, the Kansas City Region decided to focus on five industry sectors simultaneously:

- Advanced Manufacturing
- Distribution and Logistics
- IT
- Finance
- Healthcare

Beginning in the spring of 2016, the Full Employment Council (FEC) awarded planning grants to economic development and sector-related organizations to host 8 business convenings with employers in the region’s target sectors. The convening sessions were attended by approximately 130 employers who represented at least 40,000 jobs in the greater region. The purpose of these convenings were to determine the workforce needs of employers at the entry level, intermediate level, and advanced position.

A partner meeting is planned for late August/early September to synthesize results of the convenings. The series of meetings will culminate with a final, combined-sector meeting were the partners will present their draft strategies to the employers who participated in earlier listening sessions. Employers will be asked to give review and refine the strategies developed by the partners.
Key Goals

The goals developed by the Kansas City Regional Planning Team are to:

1. Hold a collaborative planning meeting across partners to de-brief the information heard in the thirteen industry listening sessions. The focus of this meeting will be on collectively and collaboratively addressing the top industry needs. This will also include a discussion of how the region can capitalize on the opportunities the Regional Team identified at the statewide meeting to prevent duplication and streamline services to employers.

2. Develop a unified business service team across partners within the region. This goal will capitalize on the strengths of business engagement and retention of employers across existing industry partnerships. Unified business services will reduce the duplication of services, streamline efforts across partners, and better utilize existing funding and resources to maximum capacity and outreach.

3. Build work-based learning opportunities across partners and programs for all customers. Focusing on this goal will help the region embed work-based learning into “traditional” classroom secondary and post-secondary education. Work-based learning opportunities also help engage students across generations and teach them both soft and technical skills.

4. Form soft skills workgroups across partners to collectively embed soft skills into training and service curriculums. Addressing soft skills was a priority area of concern of industry representatives in all five sectors. Establishing a workgroup will enable all partners in the region to develop shared strategies for uniformly addressing this key area.

Deliverables Created for the Region

1. Industry launch meeting toolkits: The Maher coach shared toolkits that provided background and resources from other local areas around the nation outlining their successful launches of industry engagement activities. Also included were draft agendas, invitations to community partners and employers, outlines of possible meeting flow, and facilitation techniques for the meeting.
2. Examples of best practices: Maher & Maher provided an extensive report developed previously for Kentucky by the firm on Unified Business Service teams, their formation, policies, and processes. Additional peer-learning opportunities were shared with the region through their coach for opportunities to participate in interactive webinars, conference calls, and US DOL’s Employment and Training Administration’s Sectors Virtual Institute where other regions with similar demographics and workforce challenges were discussed.

3. Attended industry listening session: The Maher & Maher coach attended the April 13 industry launch meeting in Kansas City, which focused on the IT, Manufacturing, and Distribution sectors.

4. Provided support for upcoming partner meeting: The coach offered to develop the agenda for the upcoming partners’ planning meeting and also offered to attend and facilitate the meeting if it occurred prior the planned completion date for on-site work in the regions.

Recommendations

1. Regional team members need a shared sense of ownership: The Kansas City Region has previously developed sector strategies initiatives out of the work overseen by the local workforce boards. These sectors initiatives are a strength to the area as much of the vision for the region and industry engagement kick-off activities are already in place. However, in order to address the challenges outlined by the Regional Planning team, which included reducing duplication and developing collaborative approaches, it is important for all team members to buy-in and have equal representation as decisions are made. Keeping all members of the team fully informed and involved in the region’s action plan is imperative so partners are knowledgeable about current and future priorities and progress. The regional planning team noted this as a key threat during their initial planning at the statewide meeting, and it is critical to capitalize on this opportunity to build a truly collaborative, aligned, and sustainable system.

2. Formalize a team structure to address goals and action steps as they relate to industry-prioritized needs: Because of the important information provided by employers on their challenges and needs, the region will no doubt have many strategic areas it will want to move forward with. One opportunity is to engage all partners in strategy development and implementation efforts through a workgroup structure. Developing workgroups
representative of partners will assist the region in expanding regional sector strategies beyond the individual efforts of the workforce boards and community colleges to truly create a system with both resources and staff capable of regionally meeting industry-prioritized needs. Such workgroups may be centered on focus areas, with examples including soft-skills, incorporating additional vocational training at the secondary level, preparing the emerging workforce with skills needed by regional employers in prioritized sectors, or developing internships and summer jobs. The planning matrix previously provided by Maher & Maher can serve as a support to capture the goals, strategies, and action steps as workgroups move forward.

3. Sector strategies and career pathways ultimately need to be operationalized at the service delivery level across partners: As regional partners move forward it is important that each partner examine their current staffing, policies and service delivery practices to ensure they are aligned with the workforce needs of targeted sectors. Regionally, each partner should ensure their individual organization’s goals and objectives aide in putting into practice services that assist in creating, identifying, and expanding career pathways for jobseekers. In addition, the region should continue to convene partners to discuss the progress of implementing and aligning service delivery around key identified sectors to find opportunities to reduce duplication and ensure the individual efforts of organizations are collectively working together across the region to meet the unified goals. Collectively examining the service delivery structures will assist in identifying opportunities to leverage resources and efforts in areas such as building the training capacity of the region across partners so all staff have the tools and knowledge to be successful.

4. Align and integrate business services: In order to develop a system where regional employers’ workforce and education needs truly drive goals and strategies, business services should be (a) regional and (b) coordinated/integrated among all partners (workforce development, community colleges, and economic development agencies, at a minimum). Currently a few partners (local workforce boards and community colleges) within the region are working together towards a unified business services approach, however, as the region seeks to continue to serve as a national leader in regionalism and sectors strategies it is vital they continue to expand these efforts to other workforce partners such as vocational rehabilitation and adult education. Including these core Workforce Innovation and Opportunity Act (WIOA) partners will further enhance each organizations ability to effectively implement the new mandates and objectives of WIOA, which collectively will build a talent pipeline system employers rely on to fill their
workforce needs as regional economic growth is strengthened. Developing a system of unified partners providing services to businesses will aid the region in increasing their ability to customize solutions to employers and reduce duplicative efforts across all regional partners.
C. West Central Region Summary Report

Team/Planning Development Process

The West Central Regional team came together as a consortium of partners representing business, the local workforce development board, higher education, adult education, K-12, and other community partners at the statewide launch meeting in October 2015. The group was galvanized by the leadership of business members of the board, who offered an in-depth understanding of the labor market information and industry needs within the region. The team consisted of diverse partners from across the community who each were willing to have honest conversations about the status of sector partnerships and career pathways within their region and the work needed across their community to continue to build the talent pipeline.

Because of the spirit of cooperation among team members, the team accomplished quite a lot at the October meeting, including draft goals and strategies for all six of the sector strategies planning categories outlined in the regional planning matrix. The regional team identified several key next steps their regional team would take to further align information and partners’ efforts.

Following the statewide meeting, the regional team reconvened on several occasions to continue action planning for a regional industry launch meeting and to further develop its regional planning matrix. One of these sessions was attended virtually by the team’s Maher & Maher facilitator, who met several times with the workforce board director and deputy director in technical assistance sessions prior to regional team meetings.

On April 12, 2016, the West Central region successfully held a Diversified Manufacturing industry launch meeting with approximately 20 employers and 23 representatives of community partners present. Maher & Maher facilitated this meeting, leading both the employer listening sessions and the partner planning session which immediately followed. The regional team heard the common needs and pain points of manufacturers across the region. The manufacturers prioritized their areas of need for the region to address first: (1) addressing soft and essential skills; (2) recruiting additional skilled workers to the region, especially in professional fields; and (3) marketing manufacturing as a solid career choice to the emerging workforce and parents of these workers. The regional team is currently developing a workgroup structure to identify the key players needed to contribute to finding solutions to
these needs, identifying best practices others have used to address these areas, and re-
engaging business and industry in this process.

Target Industries

The regional team, with the help of its industry champions, dove into the data to determine
targeted industries with the highest competitive advantage, high-demand occupations, and
family-sustaining wages. The group noticed opportunities across industry clusters such as
agriculture production, food processing, and manufacturing that had a high competitive
advantage. Likewise, these clusters share transferable occupations, such as maintenance and
repair workers. The group also identified that they have two manufacturers on their workforce
board who are willing to be industry champions and can recruit other manufacturers to the
partnership. As a result, the regional team chose to combine elements of several clusters to
create the Diversified Manufacturing cluster as their targeted industry to build out this first
regional effort.

The team did consider other targeted industries, such as Healthcare, but decided that
Diversified Manufacturing was their best choice at present due to the engagement of industry
leaders at the statewide meeting. In the future, once the team implements a to-scale talent
pipeline development strategy for Diversified Manufacturing, it will build out additional sector
strategies and career pathways in other industries where the region has a competitive
advantage.

Key Goals

The goals of the West Central region are to:

1. Develop an effective, diverse and sustainable regional team to meet the demands of the
growth industries in the region. The team recognized that prior to the statewide
meeting, their region did not have a shared regional vision or identity, and there was
not a cohesive region-wide effort to build the talent pipeline for critical industries. In
order to build a system that is sustainable after the life of the state-funded project,
team members must develop strategies for shared messaging and communications and
systems alignment now.

2. Develop a deeper collaborative partnership and create a regional identity that both job
seekers and employers identify as the “go to” system for employment and training
support. The group recognized that multiple agencies providing training, business
services, and other talent development services all market independently and fail to
offer job seekers and employers a clear message about what is available across the workforce system as a whole. The regional team plans to better coordinate business services and align training and other services to position themselves as the “go to” system for employers. This will include unified marketing across the region and a “30-second elevator speech” that all partners use to describe the regional vision and their services.

3. Develop a data team to build understanding of competitive advantages and opportunities and also ensure that regional team partners are aligning their targets and strategies by sharing common definitions and data sources.

4. Share information about the job seeker assessments currently being used by partners and employers, including the advantages of each type of assessment and the extent to which assessments currently in use are meeting industry needs. During the industry launch meeting, this was an important topic of discussion among employers. Employers noted that the regional partners need to improve their promotion of the National Career Readiness Certificate program in particular.

5. Develop and maintain three workgroups that will address the top three priority areas as outlined by industry leaders at the regional industry launch meeting: (1) Addressing soft and essential skills; (2) Recruiting additional skilled workers to the region, especially for professional fields; and (3) Marketing manufacturing as a solid career option to both the emerging workforce and parents of those workers. The prioritization by industry leaders of these three areas aligns with opportunities and weaknesses the regional team had previously identified during their strengths, weaknesses, opportunities and threats analysis. A few pockets of successful programs with individual manufacturers in areas of the region were identified for replication at greater scale region-wide.

**Deliverables Created for the Region**

1. Self-assessment, asset mapping, and regional planning matrix: Prior to the statewide meeting, the regional planning team was provided with a self-assessment instrument that allowed each team member to communicate his/her viewpoint on their progress on implementing sector strategies regionally. Self-assessment responses were used as a basis for initial discussion at the statewide meeting, allowing team members to identify areas of strength and opportunity. Team members later completed an asset-mapping template across partners to catalogue relevant resources, programs, and initiatives. Both of these exercises provided foundational inputs to the goals, strategies, and action steps’ outlines in the team’s regional planning matrix.

2. One-on-one coaching: Much of the technical assistance provided to this region by Maher & Maher has been in the form of individual one-on-one coaching with the
workforce board director and deputy. Phone calls to review the agendas for the regional planning sessions, providing recommendations on the approach of the regional team, and answering questions directly from the industry representatives on the team were common activities. Coaching also included providing resources and best practices from other areas, helping with customization of the region’s approach, and offering guidance on facilitation strategies for the industry launch meeting.

3. Sample sector strategy toolkit and industry launch meeting materials: The Maher facilitator provided the team with a sector strategies toolkit from another state that outlines models for industry engagement and industry launch meetings. The facilitator also shared draft meeting agendas, invitations to community partners and employers, sample questions for industry representatives, a one-pager outlining the regional vision and objectives of the sector initiative, and suggested facilitation methods to meet meeting objectives.

4. Examples of best practices from other areas of the country: In addition to the toolkit provided for the meeting, the Maher facilitator provided links to resources and best practices to the Wichita Workforce Board, which has worked with economic development and downtown developers to create an identity for the South Central Kansas Workforce Region.

5. Peer mentoring with other local workforce board: The Maher facilitator connected the West Central regional planning team to the Northwest Tennessee Workforce Board, which represents a region similar in geography, industries, and demographics. Several of the strategies Northwest Tennessee peers provided are methods that can address West Central’s industry-recognized priority areas of marketing manufacturing to the emerging workforce and their parents and recruiting workers to the area. Facilitated peer learning activities were held via phone and email to assist West Central in developing a network of peers who are successfully addressing similar issues. This peer learning session included overviews by staff of Northwest Tennessee on:
   - Partnerships with both K-12 and higher education to host “Manufacturing Days” to engage the emerging workforce and their parents;
   - Overviews of how the board has marketed and utilized the National Career Readiness Certificate as tools to engage employers by providing no-cost job profiles and customizing career readiness certification level requirements for individual jobs;
   - Working with the Port Authority to build a regional identity in collaboration with economic development initiatives; and
   - Organizational development strategies Northwest Tennessee Region uses, such as site visits to other areas of the nation to observe and learn from peers who are successfully building industry and community partnerships.
6. Framework for workgroups focusing on industry priorities: Following the launch, the Maher & Maher facilitator provided the team with a report that included the key points industry representatives discussed during the meeting and provided recommendations for how the West Central region could organize their newly-developed working groups to address the three priority areas. This framework also included suggested roles and responsibilities for each member of the workgroup and for the larger regional planning leadership team. It was noted that during the time between the statewide meeting and industry launch meeting, the responsibility for much of the regional planning matrix action steps had fallen to a few members of the regional planning team. Therefore, the framework was also grounded heavily in revisiting the original strengths, weaknesses, opportunities, and threats analysis and the regional planning matrix to encourage the participation and investment of the full regional planning team as they move forward.

Recommendations

1. The regional team needs a shared sense of ownership and championship among partners: The West Central Regional team accomplished a significant amount of work together in a relatively short time, particularly considering that this was the first time many partners were coming together on a truly regional basis. That said, the regional team is, to some extent, still developing, organizing, expanding, and determining how they will work together moving forward. To ensure sustainability of the effort, all partners on the regional team need to be continually engaged to develop a sense of ownership of and investment in the team’s work. In some cases, one or two partner organizations have been the primary drivers of the team’s work thus far, and at times there has appeared to be a reluctance among other partners to step up to lead workgroups around the priority areas identified by industry. As the team evolves, cultivating engagement and support among all partners will be essential.

2. Formalize a team structure to address goals and action steps as they relate to industry-prioritized needs: While the West Central regional team has developed a plan and they understand the benefits of regional planning, they would benefit from some dedicated time to further build an operational structure for the team. A framework of roles and responsibilities for workgroups has been provided, but it is unclear if the region has adopted this method or a similar structure and obtained buy-in from both members of the regional planning leadership team and other partners who attended the launch meeting. The planning matrix can also serve as a great resource in formalizing the team’s structure, as it provides insights regarding potential opportunities for the region that would be advanced through the operationalization of sector strategies for job seekers and employers. Further progress could be achieved with the support of a facilitator and/or regional team leaders initiating the process. Another approach is to identify resources that can be dedicated to this work, including staff time and funding. Identifying an individual who can serve as a coordinator for bringing partners together
regularly, organizing the logistics of the meetings, and serving as the overall champion for employer-driven sector strategy work would greatly help maintain momentum. Seeking WIOA Transition funds to carry out some of the strategies in the plan or pursuing other grant funding opportunities that support manufacturing career pathway development and apprenticeship opportunities could be an option.

3. Sector strategies and career pathways ultimately need to be operationalized at the service delivery level: As regional partners move forward, they will need to examine their current staffing, organization, and service delivery structures and align them to the workforce needs of targeted sectors and to career pathways within those sectors. At a minimum, focusing regionally on sector strategies within diversified manufacturing will require partners to adjust how they present labor market information to job seekers, invest funding in training, and design training programs for youth and adults (including increasing focus on work-based learning). Partners will need to ensure that staff at all levels of their organizations understand the focus on sector strategies and what that focus means for their jobs. Training and capacity development will be important to enable all staff to operate successfully in a sector-driven service environment.

4. Expand existing models within the region and build to scale: There are collaborative efforts that currently involve at least two partners taking place across the region. While these efforts are currently relatively small in scale, they provide a foundation for the region that can be replicated and scaled as additional partners and geographic areas are engaged. One of these examples includes a manufacturer who serves on the local workforce board and the regional planning team. The board member’s company works with local K-12 school systems to introduce manufacturing career opportunities and skill set requirements to students and parents through classroom visits and other means. Highlighting additional models like this one for other employers to replicate can assist in marketing manufacturing as a good career choice to the emerging workforce and their parents. Such examples also should be further documented in the region’s asset map. The key is to take the best cross-agency initiatives to scale in the region systematically. Identifying action plans with clear leads, responsible parties, objectives, and further action steps will create accountability among all members of the team and help support sustainability. This will create additional “stockholders” in the region and provide concrete opportunities to work collaboratively across partners and systems, and will also support aligning and braiding resources to better meet business and individual customer needs.

5. Maintaining momentum and building sustainability are important considerations: The team will need to maintain the momentum begun under this initiative and find ways to support ongoing communication, coordination among partners, regional plan development, and, ultimately, plan implementation and tracking. To maintain clear communication and momentum, the team must implement a defined framework and messaging. The team should identify key small goals that can be achieved now and serve
to build momentum in this initiative. Over the long term, the regional team’s priority efforts must be sustained and built to greater scale, which will require financial, policy, and operational commitments from team members. Maintenance of momentum and early successes are critical to ensuring that the team maintains credibility with employers.
D. Southwest Region Summary Report

Team Development and Planning Process

The Southwest planning team was largely already in place and working toward building an employer-led system in advance of participating in the Statewide Launch in October 2015. Active members of the team include workforce partners, school districts, community college, economic development partners (and the Joplin Partnership), chambers of commerce, and representatives of various grant-funded services, including Food Stamps and TANF. The team embraced a strategic vision of a workforce system that works across program and political boundaries to the benefit of its employer and job applicant customers. The statewide sector strategies effort generally supports and encourages priority Southwest regional initiatives such as Sector Ready, Career Pathways, credentialing, and efforts to assist applicants with barriers to employment.

The Southwest region is continuing its push to incorporate the vision inspired by both WIOA legislation and state leadership. They are down the road in sector work, focused on manufacturing, and are now working the supply-side applicant pool, hoping to engage new populations with employers. The early efforts resulted in manufacturing representatives becoming directly active in the recruitment and education of students and potential job applicants. This effort was developed in response to employers wanting better-informed and trained applicants and is an indication of workforce partners following employers’ lead, rather than leading with their programs.

Target Industries

Using a variety of data and labor market intelligence, the Team identified Healthcare, Manufacturing, Professional Services, Information Technology, Construction, and Transportation as the sectors likely to yield the highest return on investment for the region. The initial activity focused on Manufacturing, as the region has a history of work in the sector. Among resources used for analysis were Economic Modeling Specialists International industry cluster data provided by Maher & Maher’s data consultant Scott Sheely and Geographic Solutions sector projections, impact analysis, and job posting characteristics. The Team tried to align its priorities with those of the Joplin Regional Partnership as well as with state-level strategies. Industry size and projected growth rates were the Team’s priority considerations in
selecting target sectors; team members also considered location quotient, emerging skill gaps, and likelihood of resistance to cyclical recessions in identifying targets.

**Key Goals**

The Southwest region has identified and is making progress on a number of interconnected goals related to its industry sector work:

1. **Enhance credentials and credentialing.** The Team is working to improve credentials across industries so they better reflect the requirements of industry and competence of recipients. They have found skills and credentials traditionally affiliated with jobs in one industry may be transferable to other industries. The board and partners have outreached to leaders around the country and incorporated best practices in support of developing more reliable credentials. The Team is also continuing its work with employers to increase the use of career readiness credentials. Eight of the eleven counties in the region have made significant progress toward or attained Certified Work Ready Community status – serving as an indicator to employers that education, economic development, and workforce partners are aligned and ready to meet their skill needs.

2. **Identify skill gaps where training can provide a solution.** The Team is engaging with employers to determine which job reductions are due to skill gaps and where resources may be redirected to move people into good jobs. Training in the region will be examined by the Team to assess training outcomes, determine if more resources are necessary to meet demand, and review the implications of student debt on training access.

3. **Work with industry to more accurately reflect opportunities for careers.** With employers, the Team is attempting to use education to highlight job opportunities in industries that suffer from negative and dated perceptions (manufacturing). The industry believes that young people think manufacturing jobs are dirty and not desirable. In fact, the industry has changed and can offer high-paying and stable employment. The initiative is another example of the workforce system representatives following the employer lead that should result in better outcomes for students and job applicants.
4. Analyze characteristics of certain population segments and assess barriers to employment. From the supply side, the Team plans to further study how criminal records, substance abuse, and limited English proficiency are affecting poverty and unemployment in the region. The Team plans to identify the more effective approaches to moving these population segments into employment.

5. Expand utilization of career pathways. The Team plans to continue its good work of connecting and informing the range of community providers through outreach and negotiating MOUs. The effort should cause providers to clarify the range of services available in the region, enable planners to identify gaps, and help to evaluate effectiveness.

6. Improve customer service. The board is also planning to emphasize a growing focus on customer care, beginning in the Job Centers and including employer services. While building an employer-led response, the board and partners continue to focus on applicant segments requiring some intervention or support for successful labor market outcomes. As described above, special attention is being paid to youth, ex-offenders, public assistance recipients, and the disabled population in service design and delivery.

7. Develop partner leaders. A continuing priority is identifying industry champions for future work, in manufacturing and for other sectors. The process will include employer outreach through focus groups and employer review of curricula and its delivery. The board is moving ahead with aligning with a new ACT manufacturing pilot and evaluating a new family of credentials developed by the National Association of Manufacturers.

**Deliverables Created for the Region**

The Team worked on several key deliverables and completed priority activities during the course of the project, which the Team’s facilitator provided feedback and thoughts on, as requested. Topics/deliverables around which the facilitator coached and/or provided feedback included:

1. Surveys and focus groups with leaders in Healthcare and Manufacturing were conducted. Findings were presented at the Heartland Workforce Summit.

2. Ongoing partnership meetings by sector, both on-site and virtual.
3. Preview videos that show realistic requirements and demands for jobs and testimonials of employees will be developed.

4. Collaborate with education to develop short-term training (skill badges).

5. Complete development of Sector Ready Tools and distribute to K-12 schools.

6. As a key Team member, the WIB will consider additional measures of success, including: retention and layoff aversion, as verified by local economic development agencies; enrollment and credential attainment for targeted occupations; employer measures, such as hire time cycle, retention, and customer satisfaction; and increased earnings and advancement related to career pathways.

**Recommendations**

The Southwest Team is advanced in its approach to building a regional, industry sector-driven system. The Team is encouraged to continue its efforts in the following areas:

1. Develop strategic supply-side responses, including approaches for underserved populations, to connect individuals to opportunities in target industry sectors on the demand side.

2. Further develop short-term training models and credentials and increase their recognition and utilization by education and other partners, where appropriate.

3. Continue efforts to engage additional partners in the regional sector effort.

4. Examine best practice models and approaches from other regions that might be useful for adoption in the Southwest region.
E. Ozark Region Summary Report

Team Development and Planning Process

The regional team came together well and worked quite effectively from the beginning of the project. Active members represented chambers of commerce, the community college, universities, the TANF program, economic development, and youth services providers. Members were active and engaged in regular meetings to discuss the development of strategies for a sector initiative. It became obvious that members recognized they owned the process and were not waiting on WIOA regulations or guidance for work to begin. Some members stepped forward on varying issues and needs (such as building a database for the team) so the team could see progress between meetings.

Target Industries

The team studied the data provided by Maher & Maher at the statewide launch event in October 2015 and later hosted its Maher facilitator at the Job Center to analyze the data further and set a rough course for working with a target industry. The Team decided to initially pursue Healthcare. Analysis of the data identified healthcare as a significant industry based on relative size and projected growth. It also offers above average employee earnings and established standards for employment credentials and training. The team held meetings with healthcare employers to validate needs suggested by data and also completed an asset map related to the industry. The Team has since expanded beyond Healthcare to other industries identified through data analysis, including Manufacturing, Construction, and IT, and is sponsoring Industry Roundtable discussions with employers in those sectors.

Key Goals

1. Demonstrate value to employers. Through discussions and follow-up planning, the Team has emphasized a commitment to recognizing employers as a primary customer of the system. Following the statewide launch, the Board embraced a demand-driven system as a goal and followed through with training of its employer services staff, focusing on using data and employer input to guide service delivery decisions. The Team is still struggling with ensuring that the Roundtable discussions continue to deliver value to the employers, as opposed to serving as venues for public partners to make presentations. Through the Roundtables and meetings in the community, there is awareness of the Team and its efforts to better align production of the regional workforce with projected
needs of employers. Employers contacted so far support the vision; the goal moving forward is to deliver on that vision and demonstrate tangible results. Initial roundtables completed for Healthcare, Manufacturing, Construction, and IT will have follow-up meetings in the fall.

The early industry meetings are producing activity. Applying information from the Roundtables, the Board explored producing industry specific videos for high school students. The initial production proved too expensive to replicate so the Board is preparing to produce its own videos. The Board received an ETA-sponsored Brownfield grant that may offer connections with Construction employers. The Board also partnered with a non-profit organization in applying for a Tech Hire grant supporting the IT industry. If successful, funds can support moving young workers without credentials into IT jobs. The Team is monitoring IT as reports show a current year decline in local IT jobs of 6%. Time will tell if the decline represents a short-term drop or more serious decline in long-term employment. The Team also notes a similar decline of about 5% in another industry, Transportation, under consideration for targeting. The Team is paying attention to and following its best data sources.

Representatives from the Team recently presented a methodology for supporting Industry Roundtables to peers from across the state. The presentation was well received and the Team has responded to inquiries about their efforts.

2. Build support among local elected officials for the industry initiative. The Team recognizes elected officials as partners in building a local workforce system and has made a special effort to inform and gain support from local elected officials. The first presentation (to the Mayor of Springfield) was successful and was followed by another presentation to additional Mayors in the region. The result was a consensus to support the effort, although that support has not yet generated significant activity. The Team indicates they will continue to invite elected officials to participate in appropriate employer forums and to keep them informed as important partners. The Team is considering hosting a Business Leaders’ Forum, successful in other places, which may be combined with elected official participation.

3. Build system capacity through training. A key goal for the Board is developing workforce system staff capacity around industry sector strategies and serving employers in that context. The Board is training its employer services staff to focus on building sustained (and personal) relationships with employers in target sectors, as part of a strategy to
build employer recognition of the system as a quality HR provider. Following the vision of the sector initiative, staff are learning to respond to customer need instead of leading with program services. Subsequent training will identify methods for better integrating service response aligned with demand based on customer need instead of supply-side program revenue. The Team has recognized that a system response to skill shortages is an integrated service response, to include program dollars and other community resources.

**Deliverables Created for the Region**

Maher & Maher was responsive to the Team’s requests for labor market data analysis. Scott Sheely did the initial work on identifying the most significant industries in the region. He then followed with more information on occupations and staffing for those industries. The Maher facilitator had regular phone conferences scheduled with Board staff every two weeks. After several phone consultations, the Team invited the Maher facilitator to meet on-site. The Team meeting provided a good discussion among members about what a well-functioning workforce system may look like. There was discussion about considering broader success measures that align with employer need, good job seeker customer service, and program compliance. Team members agreed to participate in asset mapping and in building a continuing resource data base.

As a lead Team member, the Board invited the Maher facilitator to meet with employer services and planning staff. The discussion and training, supporting the above-referenced staff capacity effort, included discussion on marketing, building long-term relationships, providing the most current employment information (learned from employers) to education partners and students and job seekers, and discussion on the tension between program performance goals and good customer service. All of the discussion items require more work in reviewing rules, policies, and procedures that impact how and why work is done.

The training session also evolved into a discussion about integrating program services and improving service in the Job Center. Board staff and the Maher facilitator continued regular telephone conversations on the issues discussed in the Team meetings.

**Recommendations**

The Ozark Team’s Maher & Maher facilitator offers the following recommendations in support of the Team’s continued work and progress:
1. As of June 2016, the Team has not convened in several weeks and has not adopted specific plans to keep members involved and contributing. A decline in activity might be expected as compliance deadlines and summer approach. If there are no formal Team meetings in the summer months, fall probably offers a good opportunity to reconvene and connect. However, the absence of meetings does not mean the important work of the Team stops. There should be communication among available members so that any momentum (or confidence) is not lost. As discussed at the staff training, the change effort requires an ongoing commitment and action by leadership or the initiative will stall. The first fall meetings require good staff work in the interim to show progress and re-energize members, be they partners or employers.

2. Board staff should continue to show a commitment to the sector strategy. They indicate a good early response from employers and already see benefit from the employer focus. Staff should be looking to see if (1) employers list more jobs with the system, and (2) more employers list their jobs with the system. Both measures are indicators of employer satisfaction with services received.

3. Continue to pursue sponsoring a Business Leaders’ Forum. A meeting with important business leaders and elected officials requires the best staff work for the best outcome. The agenda has to be crafted so that everyone participating sees the discussion is around responding to employer need. Time spent with the meeting leader in advance of the meeting is critical to achieving a quality outcome and to keeping discussion focused. Service provider participation, if allowed, should be kept to a minimum with the agenda built around employer discussion.

4. A person should assume or be assigned responsibility for the sector initiative in order to ensure its implementation and ongoing progress. Program compliance and operational responsibilities can obstruct the best of intentions, and the sector work will need to be given priority and support equal to that of programs and services governed by regulations, policy, and performance standards. Performance targets should be adopted for plans and included in contracts to insure individuals and organizations align their work with goals. Reports to the governing local boards (including the WIB) should include the adopted targets along with program compliance targets. Include the policy-making boards in discussions on setting targets so that measures of success continue to evolve based on which measures prove most valuable.
5. Find ways to use the good information gained from employers to inform the system about changes to the regional labor market. Current job information can be packaged and displayed to users in a number of ways. It can inform provider institutions of changes in demand that should impact what is offered to their customers and encourage programming changes by bringing market forces to bear on the education and training system. It can inform customers (including students and parents) about good career choices and guide them toward better choices as consumers. It should inform the WIB and other program providers and inform regular adjustments in the obligation of program resources used for education and training in response to changing labor market conditions and needs.
F. Northeast Region Summary Report

Team/Planning Development Process

The Northeast Regional Team includes public sector partners from workforce development, Vocational Rehabilitation, Adult Education and Literacy, the Family Support Division, economic development, and post-secondary education. During the October 2015 Statewide Launch meeting, the Team focused its time in sessions on exploring the cluster data provided by Maher & Maher, identifying target clusters, and discussing skill shortages in key clusters. The group was familiar with the concept of clusters presented at the Statewide Launch meeting, and benefitted from the expertise and insights provided by the Team’s economic development member, who has experience working with similar data sets and strongly supports regional sector approaches. The Team noted its interest in receiving additional support around data from MERIC’s LMI representative for the region as well as additional support during the project from Maher & Maher and its data specialist, Scott Sheely.

Based on growth, wages, and size, the Team identified manufacturing, especially metal and metal fabrication (including welding); transportation; and healthcare as its top three target clusters (agriculture is also considered important). The Team focused its Statewide Launch conversations on exploring skill shortages that have been identified repeatedly in advanced manufacturing. Welding skill gaps were noted by many employers as a serious problem in the Northeast region. These conversations helped the Team to better understand how widespread welding skill shortages are in the region and how many different types of employers need welders now. The group reviewed what they have already done together to address welding skill shortages, as well as what they could do to build on that foundation. Team members noted that the Northeast region is very large geographically and that partners have not worked together on sector strategies at the regional level before. However, the Team committed to working together to document the skill shortages in welding as identified by employers and made plans to conduct an employer survey to obtain additional business input on manufacturing skill shortages. During the initial meeting the Team completed a SWOT analysis, which highlighted their strong partnership skills and foundational knowledge of their region’s challenges in sector work.

Early in the project, the Team also completed a self-assessment exercise. As a team, their highest score was on the “Driven by high-quality, current, shared data” factor, and their lowest score was on the “Measured, improved and sustained sector strategies” factor.
Over the course of the project, the team worked together collaboratively to identify key goals and activities, including further exploring and documenting manufacturing skill shortages, conducting an employer survey, and expanding community college curriculum-sharing in the region. Moving forward, the Team will be launching its survey and conducting a manufacturing industry launch meeting once survey results have been gathered and analyzed.

**Target Industries**

Based on growth, wages, and size, as well as significant skill gaps and workforce needs, the Team identified manufacturing (especially metal and metal fabrication, with a focus on welding) as its initial industry for focus. Additional target industries for later focus may include transportation and healthcare. Agriculture was also noted by the team as an important industry in the region.

**Key Goals**

During the initial meeting of the Team at the Statewide Launch, three goals emerged for a regional manufacturing sector project, which the group agreed to pursue together:

1. The Team committed to working together to document region-wide skill shortages in welding as identified by employers, and made plans to conduct an employer survey to obtain additional business input on manufacturing skill shortages.

2. The Team committed to supporting the economic development partners in leading regional employer survey efforts. The Team’s intention is to keep the employers’ workforce needs’ at the forefront and their economic development partners in the “driver’s seat.”

3. The community college partners agreed to ramp up their sharing of curriculum and staff resources among colleges to maximize each of their contributions to training solutions and to eliminate duplication of effort among the campuses in the region.

Action on the goals began as soon as the Team was back in the region. The first draft of their employer survey was developed by the economic development partners with input from the rest of the Team early in 2016 and was field-tested by regional economic development partners. The initial survey results demonstrated a need to retool the survey to add questions and reach a larger audience. As of June 2016, the Team was fine-tuning their revamped survey; the survey development and refinement this process helped to strengthen the relationship and
trust among all Team members and the partnership with regional economic development stakeholders in particular. MERIC staff were also very helpful to this process, offering survey data analysis and other data support.

Since the initial statewide meeting, the Team has met twice in person and worked together by telephone. They completed their initial action plan in early February 2016, which included additional goals for their work:

1. They agreed that employer leadership is critical and will seek a business leader who is an identified champion of advancing the skill training of his/her employees, a proponent of companies working together at the industry level and, therefore, a likely candidate for playing a lead role in a manufacturing sector project.

2. The community college partners on the Team will continue to expand their efforts to share curriculum and resources with one another across the region so that each college can benefit from others’ expertise and they can each do more for their customers. The region’s TAACCCT grants were identified as great resources for identifying potential curriculum ideas.

3. A region-wide manufacturing sector launch meeting will be scheduled once the survey results are available and a business leader has been recruited to lead the launch convening.

**Deliverables Created for Region**

1. Initial and additional data on the region’s clusters, staffing pattern data, interstate labor market commuting pattern data, and occupational data
2. Employer survey samples used by other Missouri regions

In addition, these template examples were shared with the Northeast regional team over the course of the project:

1. Project plan template to guide the team’s and facilitator’s work during the project
2. Team meeting agendas and notes
3. Updated regional plan framework to reflect team discussions following the October 2015 statewide launch meeting
4. Asset-mapping template
5. Materials and other deliverables related to industry launch meetings, such as invitation language, a sample agenda, a sample participant handout, and other materials
Finally, the Maher & Maher facilitator conducted an in-person visit with the team on June 23, 2016, which was a key project activity. The visit took place in Paris at the Workforce Development Board office. The Team had originally planned to conduct a regional launch during the course of the project but postponed launch planning as they worked to complete their regional WIOA planning work. The purpose of the facilitator’s June 2016 visit was to review materials provided to the Team throughout the project, in particular employer survey materials; review the current regional action plan; and discuss next steps for updating the action plan.

Recommendations

1. The regional partners should leverage regional WIOA planning efforts to further their Team’s understanding of how it can support sector work moving forward.

The Northeast Regional Workforce Board has just completed regional and local WIOA plans, and the insights gained through that work should be used to inform and enhance planned next steps in manufacturing sector strategies work. During the WIOA planning process, the strong working relationships among the Board and its partners in economic development, post-secondary education, K-12 education, and regional business organizations provided many additional opportunities for expanding the Team’s view of their region’s needs.

Additional insights on the Team’s ongoing sector work can be gained from the following two areas:

- Analysis of the NCRC and Work Ready Communities efforts already underway in the region with strong support from the state. These efforts have created effective forums for county-level and regional discussions on key workforce issues and are a practical foundation for comprehensive partnership development and advancement.
- The statewide effort to focus additional educational resources on the 40% of high school students who do not obtain their high school diplomas. This initiative has made the importance of foundational skills more visible and helped to raise awareness among local elected officials and state legislators of the challenges employers face with regard to this workforce segment.

2. The Northeast region should continue making progress on plans for hosting the manufacturing industry launch meeting.
The Northeast Workforce Development Board is well-positioned to convene the regional partners for the launch meeting, working closely with the business champion the Board and its partners are working to identify, as well as other business partners. Manufacturers’ input during the launch, as well as the feedback that is gathered through the employer survey, should drive launch conversations and the Team’s next steps in its sector work.

3. The Northeast Team should continue to update the action plan initially developed in February 2016.

While the current action plan is comprehensive, planned activities and timelines have evolved since the plan was first drafted, and the plan should be updated to reflect the Team’s ongoing work and any new data/intelligence that has been gathered. Keeping the plan updated over time – particularly after major activities like the regional launch meeting – will help keep the Team’s work on-track and maintain momentum.

4. The Northeast Team should continue to work closely with other Missouri sector strategies teams in neighboring regions, especially the Northwest Missouri Team.

The Northeast Team is eager to learn from its peers and to continue its excellent working relationship with MERIC staff to understand how the Northeast region interacts with neighboring regions. The Northeast Team has worked especially closely with Northwest Missouri over the course of the project, given the similarities in their regions and their shared position as the northern one-third of the state. The region should also continue to work with other states with whom in shares labor sheds and workforce dynamics, including Iowa and Illinois.
G. Central Region Summary Report

Team/Planning Development Process

The Central Region, which was represented by the workforce development board (industry members, community college representatives, and staff), met at the October 2016 Statewide Launch Meeting to review regional data, determine key challenge areas, and develop a high-level action plan. The plan set a roadmap for how the group will target its selected sector and progress toward a fuller workforce response.

The group also identified needing to work on building a foundation upon which a true sector strategy approach can succeed. Specifically, the group recognized a few critical challenges:

- It needs to bolster its relationships with key economic development entities across the region (so that it can better align regional education and training investments with where the real future job growth will occur);
- It needs to more consistently use data (from MERIC or elsewhere) to make real-time informed decisions about key regional industries to target and key occupations around which to build programs; and
- It needs to more assertively seek and form lasting partnerships with business/industry groups so that they can be more responsive to demand.

The facilitator and the group’s leadership team held bi-weekly calls for several months. These calls were largely focused on digging further into the provided labor market data and shifting target sectors (the group had originally had select Tourism and Hospitality as a target sector but, after examining the lower wages in this sector, shifted to Advanced Technologies).

Following this series of team calls with the facilitator, the local workforce area went through staffing transitions, which might have impacted the team’s ability to continue to meet. The facilitator continued to reach out to the team throughout the project to offer support, resources, and to facilitate their launch meeting. It is unclear whether the same team continued to meet or plan collaboratively.
Target Industries

The region selected Advanced Industries as its initial industry focus sector, which is characterized by its deep involvement with technology R&D and STEM workers and encompasses:

- Advanced manufacturing (e.g. electrical equipment, ship making)
- Energy industries (e.g. power generation)
- High-tech services (e.g. computer system design, engineering services)

Compared nationally, the region has a high concentration of Advanced Industries jobs and the number of jobs in this sector (15k) is expected to grow over the next decade. The average wages of occupations in this sector, at $72k+, are extremely high and the sector offers a multitude of opportunities for workers at all skill levels.

The region also identified Health Care, Logistics & Distribution, and Leisure/Hospitality as key to the growth of the region.

The regional leadership team indicated, well into the project, a desire to break out its 19-county region into three sub-regions, highlighting the specific differences between the geographies and economies. While data was provided to help the region potentially make some changes in its target sectors, it is not clear whether the fuller region decided to focus on other industries in addition to Advanced Industries. The group planned to hold an industry partnership launch on June 29th using a local facilitator to coordinate.

Key Goals

The initial goal for the region was to build a more demand-driven sector strategy approach to serving workers beginning with Advanced Industries as a test sector. The team was going to use the labor market data to convene employers in the industry to begin a conversation around key occupational and skill gaps. The regional team had also sought to build stronger alignment and buy-in for this approach through a project charter that would provide team members with a clear set of responsibilities in supporting this new approach. A charter was provided to the team as an example from which to build.
Deliverables Created for the Region

1. Action plan (a project plan summarizing how the group would move toward this aligned Advanced Industries sector)

2. Data (including the data packages that provided evidence of high growth potential target sectors from which the group could select; and updated packages to take into account the client’s interest in breaking the region into three smaller sub-regions)

3. Data presentation (a draft presentation and template aimed at helping the team articulate externally its selected target industries and occupations. Product was to be used as a presentation during its sector partnership launch. It was designed to also integrate real-time LMI data that the group is already pulling.)

4. Group Charter (a list and description of roles and responsibilities that the group members should consider as the new sector partnership gets launched)

5. Asset map template (a template to facilitate the collection of regional information that would support the growth of an Advanced Technologies sector partnership)

Recommendations

The following are recommendations to launch and/or advance a sector partnership in the Advanced Industries sector in the Central Region.

1. Identify a mix of companies—and champions—within the industry to invite to join the sector partnership: With the labor market this project yielded and the real-time data already being collected by the region, the regional team should be able to identify a robust mix of large and small firms to invite to an Advanced Industries sector partnership meeting. More specifically, the team should identify a smaller group of 2-3 industry “champions” who will serve as business leads within the partnership and help recruit other industry members. These business leads might also be considered as workforce board members to ensure the board continues to align all of its resources and programs toward a key industry sector such as this.

2. Conduct a true gap analysis of supply and demand in the industry sector: While the data shows that roughly 15,000 workers will be needed in this industry over the next decade,
it is not clear yet how the regional training and education institutions are currently meeting this demand (e.g. are there enough students with the right credentials graduating regionally to fill this pipeline?). A gap analysis will provide important data to showcase at a sector partnership meeting and facilitate a discussion with area education providers about potential future curricular and program changes.

3. Strengthen relationships with area economic development organizations and regional industry associations: While hosting a sector partnership meeting with Advanced Industries firms is an important step for this region, the region still needs to build stronger and long-term partnerships with the region’s economic development and business organizations (organizations like chambers of commerce) that can lend additional credibility to sector partnerships and help engage business members over time. While there are a number of economic development organizations in the region there is no indication that they are actively involved in helping push the board’s vision.

4. Continue to track Advanced Industries data and integrate it into career center services: Because Advanced Industries represents such a critical industry for the region, the region should ensure that it continues to monitor the industry’s growth patterns and workforce needs. The Central Region workforce area can play that role. More importantly, the region should begin to incorporate Advanced Industries-related resources and information into its career center services (e.g. career mapping, career pathway information, industry job descriptions) so it can steer more job seekers into this promising sector.
H. South Central Region Summary Report

Team/Planning Development Process

Partners in the South Central region have a long-standing history of working together, and note that community leaders are engaged and communicate well with one another. While regional leaders have worked together on a variety of efforts in the past, most activity tends to take place on the east and west sides of the region, rather than throughout the region as a whole. Team members represent a range of partner systems, including workforce development (Board and Job Center staff and Board members), adult education, post-secondary education, the Missouri Work Assistance program for Temporary Assistance for Needy Families recipients, vocational rehabilitation, a regional small business incubator, and a council of governments.

Several members of the South Central team participated in the October 2015 statewide launch meeting and used their time together there to identify potential focus industries and begin identifying priority strategies and next steps based upon their self-assessment and SWOT analysis activities. The team’s facilitator gave a follow-up sector strategies and project orientation presentation to the team in January 2016. During a team meeting in March 2016, the team selected an initial focus industry, Diversified Manufacturing, and identified some initial priorities for work with the industry.

Later in the spring of 2016, the South Central regional team increased its engagement with an existing advanced manufacturing industry group in the region. The group, which includes manufacturers, career and technical education, MSU-West Plains and other colleges, the Workforce Board, the Ozark Small Business Incubator, and others, meets regularly. Current areas of focus include identifying available and needed manufacturing training programs, curriculum, credentials, and career pathways. This fall will see the launch of the Greater Ozarks Center for Advanced Technology (GOCAT), an advanced manufacturing training center. There is also a good deal of small business outreach taking place, as well as efforts to connect manufacturers along supply chains.

Target Industries

The team decided to focus initially on the diversified manufacturing cluster. There are multiple forms of manufacturing throughout the region and a significant amount of existing interest and activity in the industry in the region.
Team members used the data provided by Scott Sheely in discussing and deciding upon the initial focus industry and also brought other data and tacit knowledge to the conversation. A COG survey of manufacturers in seven counties, as well as the Board’s 12-county labor shed study, are also important inputs to the region’s manufacturing sector strategy.

Moving forward, the team is interested in potentially pursuing work with the healthcare services and wood products industries. There are strong healthcare-related programs and pathways in the region, including a range of nursing and allied health training. Wood products is extremely highly-concentrated in the region but has not been a target for investment in the past. The team is interested in seeing how it might help support the growth of the industry through strategic support.

**Key Goals**

The South Central team developed preliminary goals in several areas of the regional sector strategies planning framework, and later discussed additional regional priorities, which are captured here. These are the team’s initial goals, which were developed during the October 2015 statewide launch meeting and the March 2016 team meeting:

1. **Gather, Analyze, and Validate Workforce Data/Intelligence**
   - Fully explore available data on the Diversified Manufacturing sector and identify priority industry drivers, then validate data-related observations with manufacturers
   - Consider assembling a regional data team

2. **Form Sector Partnerships: Convene, Partner, and Articulate Vision**
   - Build a comprehensive and inclusive regional partnership, and identify and engage additional needed partners in the work of the team (may include economic development, small business/entrepreneurship representatives, elected officials, etc.)
   - Create and adopt a shared regional vision
   - Enhance communication efforts both internally, among partners, and externally, in terms of strategic regional communications and messaging
3. Assess Employer-Defined Talent Needs

- Engage industry employers to solicit input on their workforce needs and desired solutions (sustained effort over time)
- Work with employers and other partners to identify common skill needs across industry clusters and support skills transferability efforts
- Working with employers, map career pathways in the manufacturing industry (this work has been started but needs to be furthered)

4. Develop Strategies and Align Resources

- Create a draft, initial strategic plan framework for the Diversified Manufacturing clusters, and then engage regional manufacturers to validate and refine the plan
- As a strategic focus, target higher-paying, family-sustaining jobs, rather than marketing cheap labor as a way to attract companies to the region
- Align education and training programs, courses, and delivery methods to identified career pathways and skill and credential needs along pathways

Since the South Central team became more involved with the existing advanced manufacturing initiative, its specific goals will likely be shaped by the broader objectives of that effort. As noted above, current priorities include assessing current and needed manufacturing training credentials to build career pathways and building relationships among regional manufacturers along supply chains.

The South Central team also plans to map the work it is currently doing around advanced manufacturing to replicate sector strategies with additional industries. The team has also prioritized the integration and expansion of Registered Apprenticeship for target industries.

**Deliverables Created for the Region**

The following products, in addition to regional data, were created for the South Central regional team over the course of the project:

a) Project plan to outline work during the project;
b) Initial regional plan framework to reflect team discussions during the October 2015 statewide launch meeting;
c) PowerPoint presentation for the team on industry sector strategies and the focus and goals of this project;

d) Team meeting agendas and notes;

e) Sample industry launch meeting agenda;

f) Asset-mapping template; and

g) Registered Apprenticeship resources.

Recommendations

The following recommendations are offered in support of the South Central region’s work with the advanced/diversified manufacturing sector and future work with additional target industries:

a) Assess existing policies and service delivery strategies to determine the extent to which they support workforce development partners in meeting the needs of regional manufacturers: Ensure that partners’ plans, policies, and service delivery models prioritize meeting the workforce needs of target industries, and reflect a focus on manufacturing and other targeted industry sectors. Make changes to policies or practices that may inhibit partners’ ability to meet the workforce needs of the manufacturing community.

b) Expand investments in employer-driven training models: The regional team has already prioritized the expansion of formal Registered Apprenticeship programs for manufacturing. Working with manufacturers, identify other business-driven and work-based training of interest to them. Ensure that partners’ education and training investments are aligned to the content and modality preferences of employers in target sectors.

c) Ensure that service planning and delivery for job seekers and employers reflects a focus on meeting the needs of target industry sectors: It is important that services be organized, staffed, and delivered to align with the identified workforce needs of target industries. For example, career counselors should be trained on the workforce needs of key industries, comfortable using a range of LMI in coaching job seekers, and equipped to direct job seekers to careers in regional target industries. Staff serving businesses should be expert in the workforce needs of the target sectors they serve, aligned on a unified regional team with other partners serving employers in the sector, and focused on providing workforce solutions beyond labor exchange.
d) Prioritize the building of talent pipelines for manufacturing (and other key sectors): Manufacturers often articulate needs around getting more young people interested in manufacturing careers and replacing retiring segments of their workforces. Regional partners can ensure that in- and out-of-school youth, career-changers, veterans, and other talent pools are made aware of career opportunities in manufacturing and exposed to manufacturing through career coaching, interest and skill assessments, and work-based job exposure and training activities.
I. St. Louis Region Summary Report

Team/Planning Development Process

The St. Louis Region includes the five county St. Louis metro area (Franklin, Jefferson, St. Louis County, St. Charles, and St. Louis City). In Missouri, this is the only region, as designated by the state, that includes multiple workforce areas (4) and multiple directors (4). This particular region has just begun to engage in true regional planning as a step to more coordinated workforce services. The group had begun planning for WIOA together but had not yet integrated efforts around an agreed upon set of target industries and aligned investments. It should be noted that St. Louis City and County have been collaborating for a number of years with several southwestern Illinois counties as part of a cross-state region.

This group of workforce leaders (and leadership from St. Louis Community College) continued to meet, as needed, for the purposes of this project. The project facilitator also had individual calls with each of the workforce directors on multiple occasions. The collaborative calls were to review plan progress, review project deliverables (e.g. asset map collection), and discuss strategic options for how the group can integrate efforts with the St. Louis Partnerships’ ongoing manufacturing work.

As of June 2016, the group is in discussion with the area’s largest economic development organization (St. Louis Partnership) to serve in an official capacity as its workforce committee.

Target Industries

The region selected Diversified Manufacturing as its initial industry focus sector. Diversified Manufacturing includes both durable goods manufacturing and a number of non-durable goods industries:

- Vehicle manufacturing
- Metal and metal fabricating
- Chemical manufacturing
- Biotechnology

Compared nationally, the region has a high concentration of Diversified Manufacturing jobs (70K+) and the number of jobs in this sector is expected to grow over the next decade. The
average wages of occupations in this sector, at $93k+, are extremely high and the sector offers a multitude of opportunities for workers at all skill levels.

In addition, Diversified Manufacturing was selected because each local workforce area in the region already has some existing manufacturing-related assets (e.g. high quality post-secondary training, organized manufacturing councils) that could be leveraged in a larger regional effort.

The region also identified Health Care and Financial Services, Logistics & Distribution, Bio-Sciences, and Construction as key to the growth of the region. Certain local areas within the larger region, in fact, have progressed in several of these areas.

**Key Goals**

The initial goal for the region within this project was to launch a sustainable manufacturing industry sector partnership in the region that could build from the St. Louis Partnership’s existing Regional Advanced Manufacturing Partnership (RAMP) initiative. The region understood that a sector partnership or collaborative like this could serve as a vehicle through which manufacturing firms in the region could communicate HR challenges and workforce system providers could strategically respond. It would allow workforce leaders to interact directly with industry to determine key trends, discuss skill needs, and develop solutions at a regional scale. This type of organized and regional sustained partnership does not currently exist.

The regional group, in early discussions, identified possible members as a group of employer champions from across the diversified manufacturing sector within the region who are willing to come together specifically to discuss workforce needs over time. The thinking was that this may be a subgroup of RAMP members plus other manufacturers in other parts of the region that are not part of RAMP. Key service providers in the partnership would be represented by leaders of the four workforce areas, St. Louis Community College, and others as identified by the regional group.

The group also began to discuss the objectives of a group like this agreeing that it could address issues such as:

- Layoff aversion/rapid response (which RAMP is currently focused on)
- Creating interest in the field at an early age by influencing families and K-12 schools
- Enhancing focus on technician training at high school and post-secondary institutions
• Entrepreneurship education/support in the manufacturing space
• Building regional career pathways that lead to improved/new credentials
• Enhancing apprenticeships
• Supporting businesses with their own internal advancement strategies
• Curriculum that better aligns to immediate workforce needs

While each individual workforce area focuses on these areas, the group recognized a need to create a more collaborative regional effort.

The group originally planned to convene a meeting of manufacturing firms, with St. Louis Partnerships/RAMP, in July 2016 to announce and launch this sector partnership. However, it appears that the meeting may be delayed until a later time in the summer. In addition, some of the group’s objectives might shift. Most notably, one group leader indicated that the partnership might actually become a standing workforce committee of the St. Louis Partnership and prepared to tackle talent issues beyond just manufacturing.

**Deliverables Created for the Region**

1. Action plan (a project plan summarizing how the group would move toward this aligned Diversified Manufacturing industry sector)

2. A regional vision around advanced manufacturing (a draft vision for the regional group in aligning efforts around this sector)

3. Data (included the data packages that provided evidence of high growth potential target sectors from which the group could select. But also included data, such as commuting patterns, which made the case for enhanced regionalism; done in response to several group members that expressed skepticism of regional interdependencies).

4. Asset Map Brief (a presentation that identified key underlying economic factors that define St. Charles, Jefferson, Franklin, St. Louis Counties and St. Louis City as a potentially viable economic “region;” that provided data to support Diversified Manufacturing as a key sector; that identified key occupations within this target sector upon which the region may wish to focus future workforce development resources; and that laid out several key strategies that the group should consider in moving forward)
5. Group Charter (a list and description of roles and responsibilities that the group members should consider as the new sector partnership gets launched)

6. Meeting invitation material (a save-the-date and one-pager describing the new regional collaborative as part of a meeting that was to take place in July 2016).

**Recommendations**

The region now appears to be working with the St. Louis Partnership to become an official workforce committee, which is a significant step from where the group started in October. A committee such as this would have great value for industry in the region in that there becomes “one” conversation in the region about workforce needs potentially across key industry sectors. The following recommendations support the success of such as committee:

1. Promote the workforce committee: The regional group should consider making a formal public announcement about the committee “launch” and its short and longer-term objectives. Promoting the committee will provide the necessary awareness needed to engage business and the appropriate service providers. As part of this effort, the group should consider the development of a committee name and marketing material that would highlight its efforts.

2. Develop a committee charter and plan: A committee/partnership like this will need a strong and organized convening entity, very active local workforce area leadership, and a structured plan for how it will carry out its objectives. The group should consider a charter and plan that would: 1) set criteria for membership (which business members are to participate? Service providers?); 2) identify specific roles and responsibilities of each local workforce area as lead for the committee (e.g. does one local workforce area take a lead during committee meetings around a particular industry sector that is more prominent to that sub-region?); and 3) sets a committee vision, set of objectives, and one-year course of action.

3. Maintain a focus on Diversified Manufacturing: Even if the committee is formed to address workforce issues across key regional industry sectors, the group should consider focusing initially on Diversified Manufacturing, as detailed under this project. Building cohesiveness around a particular industry can focus the group and yield specific, and often understandable (to the public) solutions that will provide the committee with
important momentum to tackle other sectors. The data certainly indicates that there is much work to be done to address talent needs in this particular sector.

4. Develop a more coordinated regional business services team: While the committee would likely bring out important strategic workforce challenges and innovation solutions for addressing skill gaps, there is still significant work to be done in the region at a more operational or service-delivery level to ensure the solutions are aligned and sustainable. For example, the region might consider more closely coordinating its existing business outreach/services efforts across partners and across the entire geographic region. This would mean bringing together some or all of the key regional partners that currently reach to businesses (area community college workforce programs, local workforce areas/career centers, area economic development organizations through their business retention visits, etc.) to more regularly share broader industry intel and, where appropriate, coordinate efforts. This type of regional business services team can often lead to other important operational changes:

- Workforce business service representatives, across local workforce areas, that specialize in a particular industry so that they can better engage and solve industry needs.
- Integration of other workforce core programs (i.e. aligning business outreach so that programs such as TANF, Adult Ed, and Vocational Rehabilitation are in alignment with the large workforce system, and the work of the committee).
- Customer-sharing data tools/software that help organizations better track and share business intel across the region.
J. Southeast Region Summary Report

Team/Planning Development Process

Southeast regional team partners have a strong history of partnership and collaboration. As such, while team members noted that they had not previously undertaken large-scale sector work region-wide, the team had a very good foundation for coming together around sector strategies and regional workforce planning efforts. Team members represent a range of partner systems, including workforce development, economic development, K-12 and post-secondary education, vocational rehabilitation, adult education, and others. The team came to this process well-formed and with a strong degree of cohesion, though it will certainly want to continue to engage additional partners from throughout the region as activities move forward.

The Southeast team was fully engaged at the October 2015 statewide launch meeting, and used their time together there to craft a shared regional vision, identify an initial focus industry, and begin identifying priority strategies and next steps. Following the October launch meeting, the team met regularly, roughly once a month, to build out its regional action plan. Early on, the team determined that hosting two diversified manufacturing industry launch meetings in the spring of 2016 was a key priority and most of the team’s meetings were dedicated to planning for the launches, which were held April 26 and 27. The April meetings had two primary objectives: (1) hear directly from manufacturers about their workforce needs and challenges; and (2) develop strategies and action steps that respond to manufacturers’ workforce priorities. Prior to the April meetings, the regional team also developed and conducted a workforce survey of manufacturers in the region; survey responses were shared and discussed during the manufacturing meetings.

The Southeast team made a great deal of progress over the course of the project. As a result of the April launch meetings, the team has built additional private sector interest and engagement and has defined clear priorities for action moving forward.

Target Industries

The Southeast regional team decided to focus initially on the Diversified Manufacturing cluster, which was customized to include Vehicle Manufacturing, Metals and Metal Fabricating, and Mining. Subsequent focus industries may include Agriculture Production/Agriculture Business (including Food Processing and Lumber and Wood Products); Health Sciences/Services; Energy/Power; and Transportation, Distribution, and Logistics and Wholesale Trade.
At the time the team came together in October 2015, the local workforce development board had already identified target industries, which were validated, with some nuances, by the data Scott Sheely of the Maher & Maher team provided. Among these industries, regional partners agreed that manufacturing should be the team’s initial focus, given its importance and diversity in the region, varying levels of concentration and growth, and documented need for workforce support. An additional factor in prioritizing manufacturing was that many regional entities have existing partnerships with manufacturers (e.g. community college consortia), and the team felt it was important to link to and leverage those existing relationships.

**Key Goals**

The Southeast team’s prioritized goals align well to the most critical manufacturing workforce needs and challenges identified throughout this project and discussed and validated at the regional launch meetings. The goals the team prioritized are based primarily on manufacturer survey results and manufacturers’ input during the April 2016 regional industry launch meetings. They include:

1. Close major “soft”/essential and life skills gaps that exist among workers in the region;
2. Engage the K-12 education system to create earlier career exploration experiences and build the talent pipeline for manufacturers;
3. Address misperceptions about the 21st century manufacturing industry and build awareness of manufacturing career opportunities and pathways; and
4. Map and address workforce and skill gaps in the unskilled and skilled production career pathway.

**Deliverables Created for the Region**

A number of products, in addition to regional data, were created for the Southeast regional team over the course of the project:

1. Project plan to guide the team’s and facilitator’s work during the project;
2. Team meeting agendas and notes;
3. Updated regional plan framework to reflect team discussions following the October 2015 statewide launch meeting;
4. Dropbox folder to organize and house regional data and other materials;
5. A one-page summary of the region’s manufacturing sector effort;
6. Asset-mapping template; and
7. Materials and other deliverables related to the April 2016 manufacturing launch meetings:
   - Invitation;
   - Agendas;
   - PowerPoint slides;
   - Briefing emails and conference call for employer dialogue panelists;
   - Participant handout and notes template;
   - Process guide for breakout group facilitators; and
   - Detailed report on the launch meetings, including breakout group notes and recommendations for the team moving forward.

**Recommendations**

The report on the April 2016 manufacturing meetings includes detailed recommendations for the Southeast regional team’s work and progress moving forward. Recommendations tie closely to regional partners’ prioritized goals for their work with the manufacturing industry. Summarized recommendations include:

1. Maintain, grow, and deliver results for the regional manufacturing partnership: Keep existing manufacturer partners engaged, and identify and engage additional ones. The “face” of the industry engagement effort – the lead intermediary and convener – should be the organization that already has the most credibility and the strongest track record with the industry, though all partners have critical roles to play (and those roles may evolve over time as additional trust is gained and results are delivered). As much as possible, bring regional manufacturers together for this effort in the context of an existing one, e.g. the community college training consortia, rather than adding additional meetings and partnership structures. It is critical to keep manufacturers – not service providers/public partners – front-and-center as the key drivers of the work of the partnership moving forward. Focus now on “early win” opportunities to respond to needs identified at the Forums and deliver immediate value, then celebrate success to build a track record of impact that can help grow the work and value of the partnership.
2. Engage other partners that need to be at the table: There are additional “public” partners that need to be engaged in this effort more strongly, particularly the K-12 education system, secondary career and technical education partners within that system, potential allies like additional Chamber of Commerce and elected officials, and non-profit/community-based organizations. Reach out to these partners to engage them in this effort and build their buy-in and investment. That said, it’s important to stress the importance of moving ahead with a “coalition of the willing.” Bring all those on board that you can, now, and keep moving ahead. Your success will eventually serve to bring on additional partners that may not be ready or willing to engage now.

3. Close major “soft”/essential and life skills gaps: The most pervasive and detrimental workforce skill gaps discussed by Forum manufacturer participants were critical workplace, “soft,” and life skills. Addressing these skill gaps successfully will require a holistic and intense region-wide effort. Stand-alone, classroom-based “soft” skills training may not be effective in addressing the need. Regional partners are encouraged to think about ways that essential skills development can be embedded and integrated “co-requisitely” with technical skills training, experiential learning like internships and apprenticeships, and classroom-based training at the secondary and post-secondary levels. Development of these skills, as manufacturers made clear, must start earlier – before high school. Achieving this goal will likely require new partnerships with the K-12 education system, pre-apprenticeship programs, and others, as discussed in the recommendations that follow.

4. Engage the K-12 education system to create earlier career exploration experiences, share manufacturers’ needs, and build the talent pipeline for manufacturers: Throughout the Forums, engaging all levels of the K-12 system, from teachers and guidance counselors to school boards and superintendents, emerged as a major need and opportunity area. Manufacturers almost uniformly expressed that career exploration and experiential activities need to start far earlier than students’ junior or senior years of high school. Partner with willing superintendents, school boards, and other K-12 education stakeholders to implement career exposure and experience activities for students starting in elementary or middle school; educate counselors and teachers about manufacturing career opportunities; and bring teachers and counselors on-site to manufacturing facilities for activities ranging from tours to summer externships.
5. Address misperceptions about the 21st century manufacturing industry and build awareness of manufacturing career opportunities and pathways: Misperceptions about the manufacturing industry – and possible unwillingness on the part of parents, counselors and teachers to route individuals to careers in the industry – are having a significant negative impact upon Southeast Missouri manufacturers. Forum participants identified a number of possibilities for addressing this challenge, including a priority for organizing a regional Manufacturing Day event on October 7, 2016 (http://www.mfgday.com/). Other possible outreach and education activities may include manufacturers opening their facilities for student tours and increasing outreach (educational events, job fairs) to middle and high schools; pursuing promotional campaigns such as multi-media advertisements and a series of expos on robotics and other areas of potential interest; dedicated events for teachers and counselors; and parent-centered activities. It would be helpful to engage other potential allies like elected officials, additional Chambers of Commerce, and regional industry groups in this effort to extend reach and messaging.

6. Map and address gaps in the unskilled and skilled manufacturing career pathway: Manufacturer survey results and Forum discussions with manufacturers reinforced that current and projected workforce gaps are primarily among the unskilled and skilled production occupations, as well as occupations that support those occupational areas. Regional partners should use available data to map production pathways, including required education, credentials, on-the-job experience, and other factors, and validate and amend those initial pathways with employer partners. Regional educational and training assets should then be mapped relative to the employer-validated pathways to determine gaps, duplication, and mismatch, and resolved accordingly. As regional partners undertake this effort, it will be important to consider talent pipeline “feeder” approaches, such as secondary education-based career exploration and experiences, “soft” skills training integration, foundational skills integration and development (reading, applied math, STEM, etc.), and enhanced work-based learning opportunities such as pre-apprenticeship and internship.

7. Consider developing a multi-partner, region-wide business services team to streamline access and support across the business enterprise for manufacturers and companies in other key industries: Participating Forum employers identified a range of needs, from better applicant screening and job matching; to more aligned training for new entrants and incumbents; to broader business support such as assistance with reducing turnover, increasing workforce retention, and preparing for impending retirements. Regional
partners should consider the opportunity to align around meeting all of these needs by forming a multi-partner business services team with designated team members that can serve as accessible and knowledgeable brokers of service for the range of needs regional manufacturers have. At a minimum, a regional business services team should include representatives from the economic development system, the workforce system, the community college system, the K-12 education system. The team could be organized such that whichever partner currently has the best relationship continues to serve as lead contact and broker, engaging and organizing the services and supports from other regional partners in a way that is seamless for manufacturers. This brokering approach keeps the details of navigating government-supported programs and resources in the “back office,” and delivers enhanced value and accessibility for area manufacturers. As the team moves forward, it could be organized on an industry-focused basis, with the best-qualified staff (regardless of agency affiliation) serving as the lead “point” for one or more industries.

8. Catalogue, replicate, scale, communicate, and celebrate “what works”: Southeast Missouri regional partners are doing great work together, with many opportunities for further impact ahead. Expanding reach and scale will be important as the partners move forward. As an example, Alan Wire’s efforts with the K-12 system in the southern part of the region appear to be yielding early fruit; how could similar partnerships be supported and expanded region-wide? As regional partners work together to implement manufacturer-identified solutions, it will be important to gauge impact and adjust as necessary, take demonstrated models to scale, and build partner co-investment in shared strategies. Communicating success, value, and impact will be crucial to engaging additional private sector support, as well as that of other public sector partners.
IV. Project Observations and Opportunities

The project accomplished several important objectives:

A. While in all of the regions, partners were generally familiar with one another and had worked together in the past to varying degrees, this project deepened regional partners’ relationships; enhanced understanding of available resources and initiatives across regions; and focused regional partners on taking “pockets” of innovation, often happening at a more local level, to truly regional scale. This is a significant achievement in terms of ultimately aligning partners, programs, strategies, and service delivery across organizational and funding stream silos, and in more effectively mapping, leveraging, and braiding resources to support industry-defined workforce solutions at scale.

B. Access to and the analysis of economic and labor force data to make decisions on regional target industry clusters is a foundational part of developing sector strategies. Every region went through the process of reviewing and analyzing their region’s data to come to consensus on target industry clusters. This is valuable exposure and experience as this activity must be done periodically to determine how the economic and labor force landscape of a region is changing and how that impacts the needs of employers and the investment and programming decisions of partners.

C. Several of the regions have transitioned from engaging with individual employers in a transactional nature, primarily focused on labor exchange, to engaging with multiple employers in regional target clusters at scale, developing more strategic and sustained employer relationships, and being employer-led. Others enhanced or expanded their existing sector strategy work. For the regions that did not host an industry meeting, tools and resources, along with peers who have now participated in at least one industry meeting, are available to help them when they are ready. The needle has been moved and industry conversations are happening!

Over the course of the project, the Maher project team also identified a number of challenges and opportunities that inform our recommendations in the final section of this report. Namely:

A. Uneven involvement of regional partners in sectors work

Local workforce area directors were the drivers of the project work and involvement of other regional partners varied, though generally was not as robust as that of the
workforce system representatives. In some cases, economic development stakeholders were operating in parallel and expressed concerns about regional workforce planning and sector efforts infringing upon their work and areas of expertise. Broadly speaking, the K-12 education system was not well-represented in this effort, which negatively impacts upon the ability to map comprehensive and well-articulated career pathways. Sector strategies, when implemented to their fullest potential, require an alignment and partnership among workforce development, all levels of education, and economic development. Our recommendations include discussion of how state partners can play a leadership role in communicating the advantages of coming to consensus around regional industry sectors and aligning regional resources to more effectively co-support priority strategies.

B. The need for project flexibility and customization based on regional needs

Any statewide initiative understandably includes common elements to ensure the objectives of the initiative are met and met at some level of scale. In the case of this project, this standardization was a challenge because of the diverse needs represented in regions across the state. Several of the regions were less engaged than was desired, quite possibly because they felt that what the project offered in terms of activities and support was not aligned to their own regional needs and priorities. Including regional partners in the design of the scope and RFP would have helped to ensure that the project was more relevant to their needs and included elements of flexibility and customization from the outset. In addition, allowing individual regions to determine their own project priorities (obviously within the framework of broader project goals) in the future may help improve the buy-in and active participation of all regional partners.

C. Treating sector strategies as “another project” rather than a culture and systems change priority

Industry sector strategies need to be understand as transformational change efforts and a new way of doing business, rather than an additional program or project, in order to be successful and effective. While some regional teams enthusiastically undertook this work, those that were significantly less engaged may have viewed this effort as “one more thing” on their already-full plates. Regular program oversight and operations, compliance and performance requirements, and concurrent pressure to develop WIOA regional plans may have taken priority in these less-engaged regions. But sector
strategies can and should be integrated into all of these areas (and more), which will need to be a focus moving forward in order to build upon this project’s initial gains.

D. Limited project emphasis on and coordination of sector strategies among state partner agencies

This project focused almost exclusively on helping the 10 regions of the state more fully understand and begin to develop sector strategies. However, a critical element of their success is having a state system that provides leadership, policy guidance, technical assistance, and resources that support establishing, enhancing, and sustaining sector partnerships. State agencies need to model the same partnerships, joint planning, and co-investment that they are asking the regional teams to pursue. Providing this support and technical assistance at the state level would provide significant benefits to advancing regional teams’ progress and success.

E. Maintaining momentum and ensuring sustainability

A few of the regions were already pursuing sector strategies and building strong industry partnerships prior to this effort. For those that were not, maintaining momentum and continuing to make progress may be a challenge, absent the framework of the project and the support of a facilitator, and given the competing pressures of other demands. Particularly in those regions that engaged employers to learn more about their workforce needs and desired assistance, a lack of follow-up and sustained engagement could pose a huge threat to regional partners’ credibility.
V. Recommendations

The following are recommendations to the state partners for moving sector partnerships and career pathways forward over time. These recommendations are focused on the role that the state can play to support regional partners in the continued development of sector strategies and the full adoption of industry-driven sector strategies as the framework for doing business and serving both employer and job seeker customers.

A. The state can play an influential role in promoting the work being done around sector strategies. Specific activities might include:

1. Seek out and promote successful sector partnerships. Develop press releases, highlight innovative models at conferences, consider recognizing high-performing sector initiatives with financial or other incentives, and generally spread the word about successful outcomes of regional sector strategies efforts.

2. Consider the development of a free-standing “workforce solutions” website that is designed to inform and channel information to employer customers. One example is the Kentucky Skills Network website, which presents a unified brand and a single access point for all business services provided by workforce development, post-secondary education, and economic development partners, and streamlines the maze of public organizations, programs, and services for employers. This would not replace the toolkit resources currently available on the jobs.mo.gov webpage, as these are tools for workforce professionals.

B. Continue to provide technical assistance for regional planning teams around sector strategy and career pathway development. Specific activities might include:

1. Craft and promote a shared state vision that articulates state-level partners’ joint commitment to supporting industry sector work and encouraging/empowering the collaborative work of regional partners. Include messaging around why all partners should be involved – state and local – and further connect key partners including Wagner-Peyser, K-12 education, and economic development. Encourage and set the expectation for all partner systems to take active roles in furthering sector strategies work.
2. Promote and support peer-to-peer learning within regions. Several regions have strong sector partnerships and are utilizing innovative approaches to enhance their sector work. There is much that regional leaders can learn from each other.

3. Support continued regionalism work in Kansas City and St. Louis in particular. These two regions are the only regions in the state which are made up of more than one local workforce area. They naturally have greater challenges around aligning and integrating.

4. Provide training for Job Center management and front-line staff on industry sector strategies and career pathways and how adoption of the approach changes Center organization and staffing and service delivery for both job seeker and employer customers.

C. Provide funding for sector partnerships and embed requirements for them in state policy, grant and other funding opportunities, strategic initiatives, and other avenues. Existing efforts across the state require financial support for sustainability, and requiring the sector strategies focus in various ways will also encourage adoption of this framework. Some examples might include:

1. Issuing joint policy among all key partner systems, or, at a minimum, ensuring that all key partners are collaborating on complementary policy development;

2. Prioritizing industry sector and career pathways strategies in funding opportunities for regions;

3. Tying performance awards or other kinds of recognition to implementation of sector and pathways strategies;

4. Incorporating the focus on sectors and pathways into Job Center certification standards and measures;

5. Developing indicators for high-impact workforce development boards that require a strategic focus on industry sector and career pathways work;

6. Where appropriate, building a focus on industry sector strategies and career pathways into program assessment/monitoring and evaluation criteria and activities; and

7. Providing operational/service delivery guidance that outlines how sectors and pathways should be incorporated and reflected.
D. **Develop frameworks for and provide support to regions around related strategies and approaches that will enable them to operationalize industry sector strategies.** In many regions, the sector work that has been done to date – while incredibly important – is at the conceptual and strategic levels. Getting from concepts to implementation may be a challenge for some regions. To help address this challenge, state partners should consider joint state/regional efforts to define a shared vision and guiding framework for a number of areas that will support operationalization of sector strategies:

1. Career pathways: Regional partners are interested in how career pathways connect to and support their industry sector strategies, and how pathways can be mapped, integrated, and implemented among partners in service delivery. In addition, there is a need for better connecting career clusters and pathways work being done by the Department of Elementary and Secondary Education to the pathways work underway or in development by post-secondary and workforce partners.

2. Unified, regional business services: In most regions, multiple partners provide business services, and there may be significant duplication in employer outreach and service delivery, particularly in regions comprised of multiple workforce areas and in regions that are very large geographically. Partners from economic development, workforce development, education, and other systems can reduce duplication, enhance alignment and resource utilization, and improve employer customers’ experience by developing regional business services teams. Teams should be staffed to reflect expertise in and dedicated support for the region’s critical industry sectors. Further developing a framework and guidance for best practices in the regional coordination and delivery of business services for key sectors would be very useful.

3. Job seeker customer flow and integrated service delivery in a sector-driven environment: Often, as regional partners work to implement industry sector strategies, they focus on necessary changes to employer customer engagement, relationship development, and service delivery. These are all critical areas, but partners also need to consider how adopting a sectors framework should change the way they approach customer flow and service delivery for job seekers, workers, and students. Partners and services may need to be organized and integrated in new, more functional ways that are intuitive for customers rather than program or funding stream-based. Service delivery staff will need to develop new expertise around the workforce needs of target sectors, and around communicating those needs to customers. Developing a framework that
articulates how the adoption of a sector strategies model can positively change the organization and delivery of services for job seekers and others would be valuable teams across the state.

E. **Measure the success of sector partnerships** and incorporate measures, as appropriate, into program and grant monitoring and reporting activities. Promote successes!

Potential measures might be:

1. Repeat business customers;
2. Time to fill vacancies;
3. Market/industry penetration;
4. Cost per hire; and
5. Turnover costs/rates.

More qualitative measures, such as employer satisfaction with the value of services provided and with the skill levels of applicants and training recipients, might also be considered.

F. Support and coordinate **ongoing data analysis and the development of regional data analysis capacity**. MERIC is a valuable data partner and has the resources, tools, and expertise to provide regular data that would allow regions to monitor their economic and labor force data regularly. MERIC staff assigned to the regions may also be able to provide technical assistance to regional partners to improve their own capacity with data. Regions may also benefit from more frequent and customized (regional) industry updates based upon real-time LMI (job postings data), as well as access to the real-time data tools that MERIC staff use.

G. To ensure that the progress made through this project is sustained and to meet current and future needs of the regions as they grow and enhance their work in sector strategies, consider **hiring a new state staff member** (or assign an existing one) who can be dedicated to supporting sector strategy work for the state and its regions. This staff member could provide subject matter expertise around the implementation of sector strategies and related career pathways work; solicit and aggregate regions’ technical assistance needs; and coordinate the provision of technical assistance and peer-to-peer learning efforts.
Getting a Head Start on WIOA

http://www.mahernet.com/blog/getting-a-head-start-on-wioa-missouris-statewide-launch-meeting-for-sector

Workforce GPS Sector Strategies Resources

https://businessengagement.workforcegps.org/resources/2016/08/16/15/22/Sector-Strategies-Resources

Missouri Regional Profiles

https://www.missourieconomy.org/regional/index.stm