

# CAREER PATHWAYS TOOLKIT: A GUIDE FOR SYSTEM DEVELOPMENT

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## 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 helpful.

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*<sup>1</sup>, 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.

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<sup>1</sup> OECD (2013), *Time for the U.S. to Reskill?: What the Survey of Adult Skills Says*, OECD Skills Studies, OECD Publishing. <http://dx.doi.org/10.1787/9789264204904-en>

### **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.

### 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 or 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.

# INTRODUCTION

## CAREER PATHWAYS TOOLKIT

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<sup>2</sup> 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.

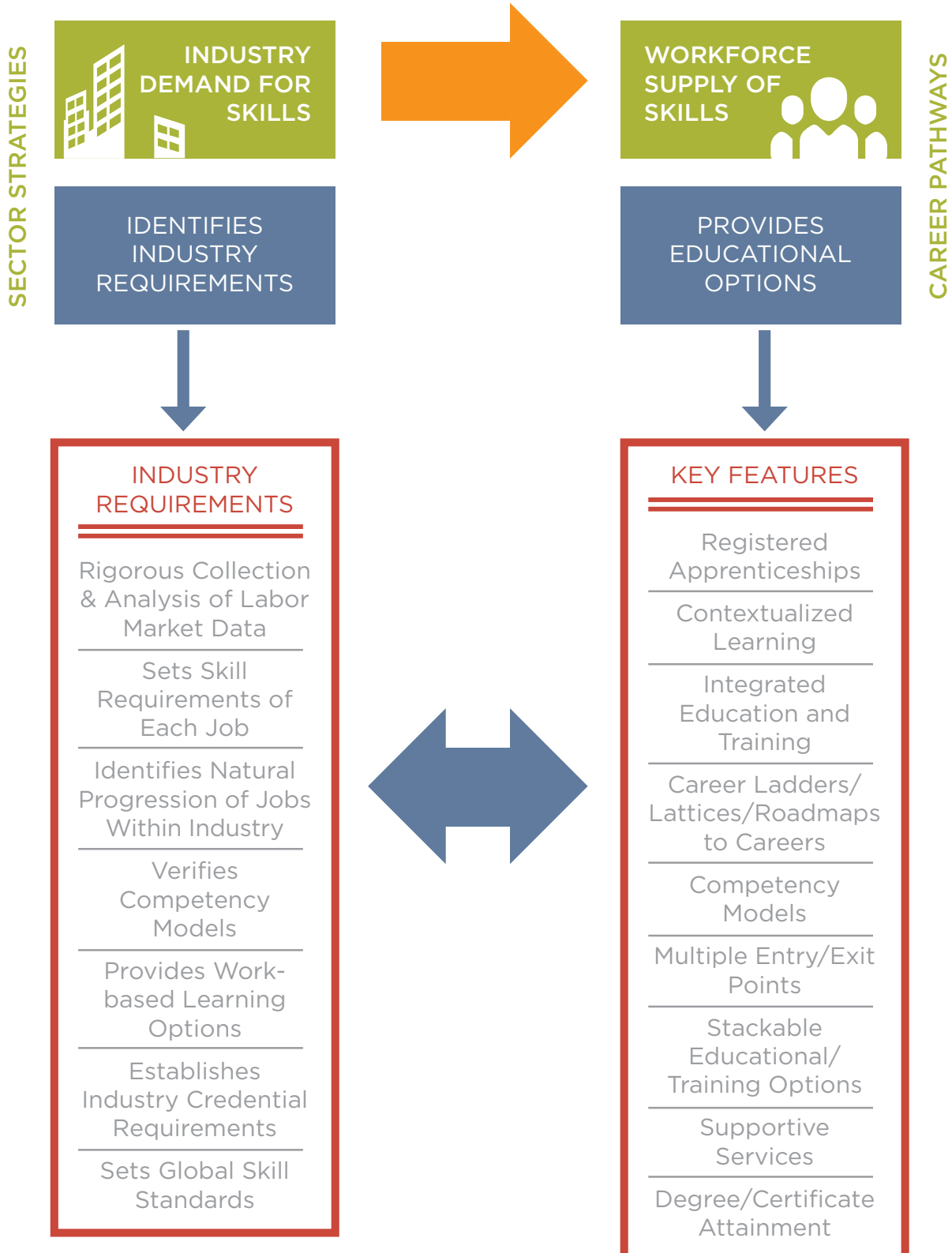
With the implementation of WIOA and the job-driven agenda, as well as the continued work on career pathways, sector strategies, and Registered Apprenticeship, USDOL is very excited about the opportunity to strengthen and expand partnerships and align systems at the state and local levels.

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.

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<sup>2</sup> This definition is provided in the ETA Sector Strategies Technical Assistance Initiative's Sector Strategy Implementation Framework.



### Complementary Approaches to Workforce Development



### 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	Emily Lesh, Colorado
Marilyn Barger, Florida	Harmony Little, Kentucky
Ray Bentley, Illinois	Tom Norman, Minnesota
Jason Dunn, Kentucky	Karen Rosa, Arkansas
Shalee Hodgson, Oregon	Pat Schramm, Wisconsin
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Debra Jones, California	David Socolow, New Jersey
Gilda Kennedy, South Carolina	Mark Toogood, Minnesota
Jon Kerr, Washington	Elroy Willoughby, Arkansas
Tom Knight, Michigan	Bob Witchger, North Carolina
Bethany Leonard, Wisconsin	

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

Judith A. Alamprese, Abt Associates	Steven Klein, RTI International
Yvette Chocolaad, National Association of State Workforce Agencies (NASWA)	Vinz Koller, Social Policy Research Associates
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Todd Cohen, Maher & Maher	Mary Alice McCarthy, New America Foundation
Hope Cotner, Center for Occupational Research and Development (CORD)	Judy Mortrude, CLASP Center for Postsecondary and Economic Success
Maria Flynn, Jobs for the Future	Amanda Bergson Shilcock, National Skills Coalition
Heather Fox, Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign	David Socolow, CLASP Center for Postsecondary and Economic Success
Jaimie Francis, U.S. Chamber of Commerce Foundation	Julie Strawn, Abt Associates
Catherine Imperatore, Association for Career and Technical Education (ACTE)	Steve Voytek, National Association of State Directors of Career Technical Education Consortium

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# **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.**

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### **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—**

- |   |   |
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| <ul style="list-style-type: none"> <li>(1) developing, implementing and modifying the state plan;</li> <li>(2) reviewing statewide policies or programs and aligning workforce development programs that supports a comprehensive and streamlined workforce development system;</li> <li>(3) developing continuous improvement strategies for:             <ul style="list-style-type: none"> <li>(A) identifying and removing barriers to better coordinate, align, and avoid duplication of services;</li> <li>(B) supporting the use of career pathways;</li> <li>(C) conducting effective outreach and providing access for individuals and employers;</li> <li>(D) establishing industry or sector partnerships related to in-demand industry sectors and occupations;</li> <li>(E) encouraging the identification of regions for workforce planning;</li> <li>(F) providing assistance to local boards to support the delivery of services; and</li> <li>(G) providing staff training and awareness across programs;</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>(4) establishing a comprehensive system of state performance accountability measures;</li> <li>(5) identifying and disseminating information on best practices;</li> <li>(6) developing and reviewing statewide policies affecting the coordinated provisions of services through the state’s one-stop system;</li> <li>(7) developing strategies for technological improvements to facilitate accessto, and improve the quality of services provided through the one-stop delivery system;</li> <li>(8) aligning technology and data systems across one-stop partner programs;</li> <li>(9) developing allocation formulas for the distribution of funds for adults and youth;</li> <li>(10) preparing annual reports;</li> <li>(11) developing statewide workforce and labor market information system; and</li> <li>(12) developing other policies to enhance the performance of the workforce development system.</li> </ul> |
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# ELEMENT ONE

## BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

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."

### CAREER PATHWAYS FYI: Joint Letter from U.S. Departments of Education, Health and Human Services, and Labor

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](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.

# ELEMENT ONE

## BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

### WIOA Core Partners/Unified Plan Development

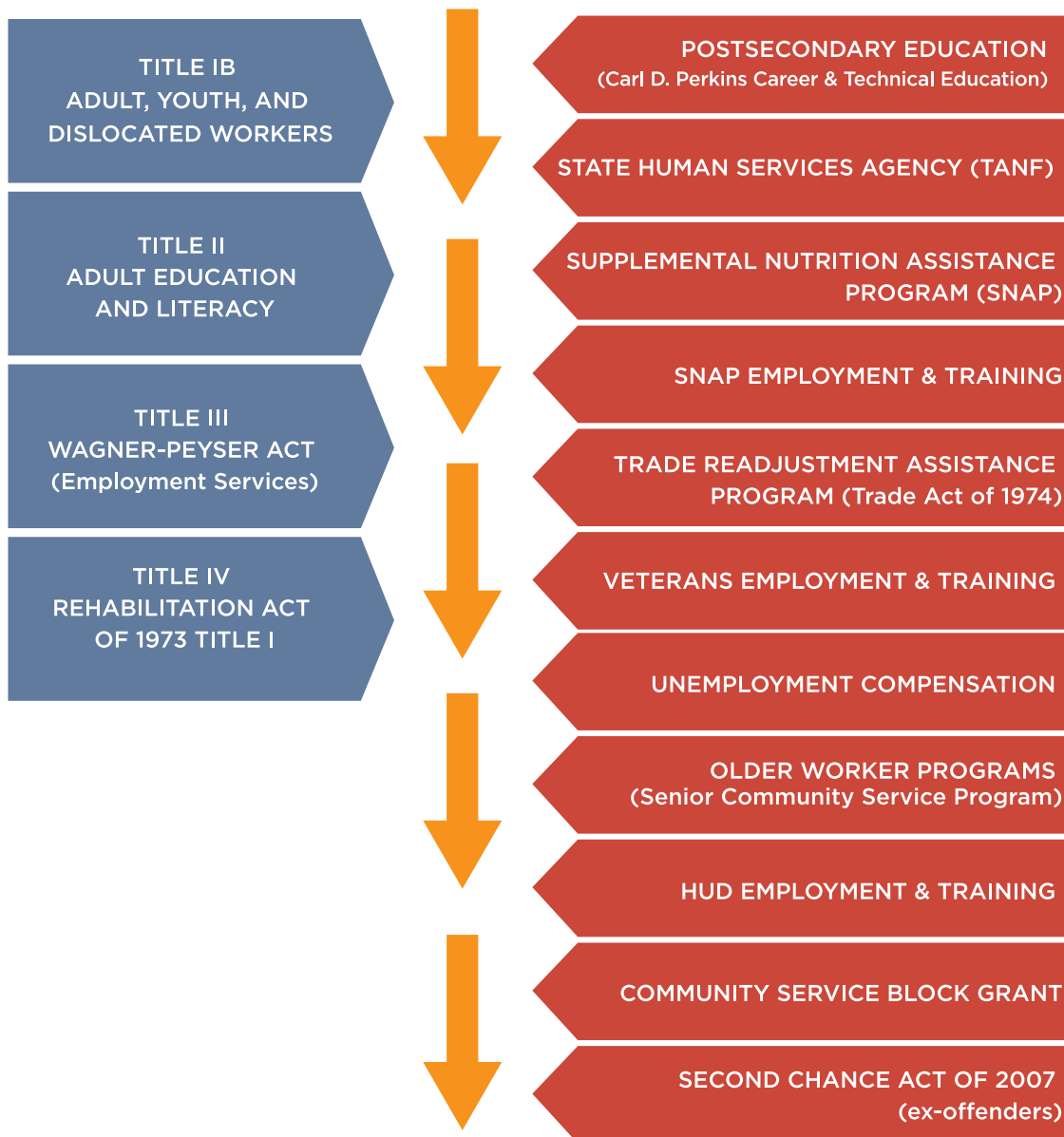
WIOA core partners are explicitly delineated in the Act and are representatives of Federal programs operating at the state and/or local levels. The state level representatives on the cross-agency leadership team should include at a minimum the WIOA core partners who must be involved in creating the Unified 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 CORE PARTNERS

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

### CAREER PATHWAY





### 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:

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### 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.

### Component 1.2: Establish a Shared Vision, Mission, Goals, and Strategies.



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.

#### 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.

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 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.

#### 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.

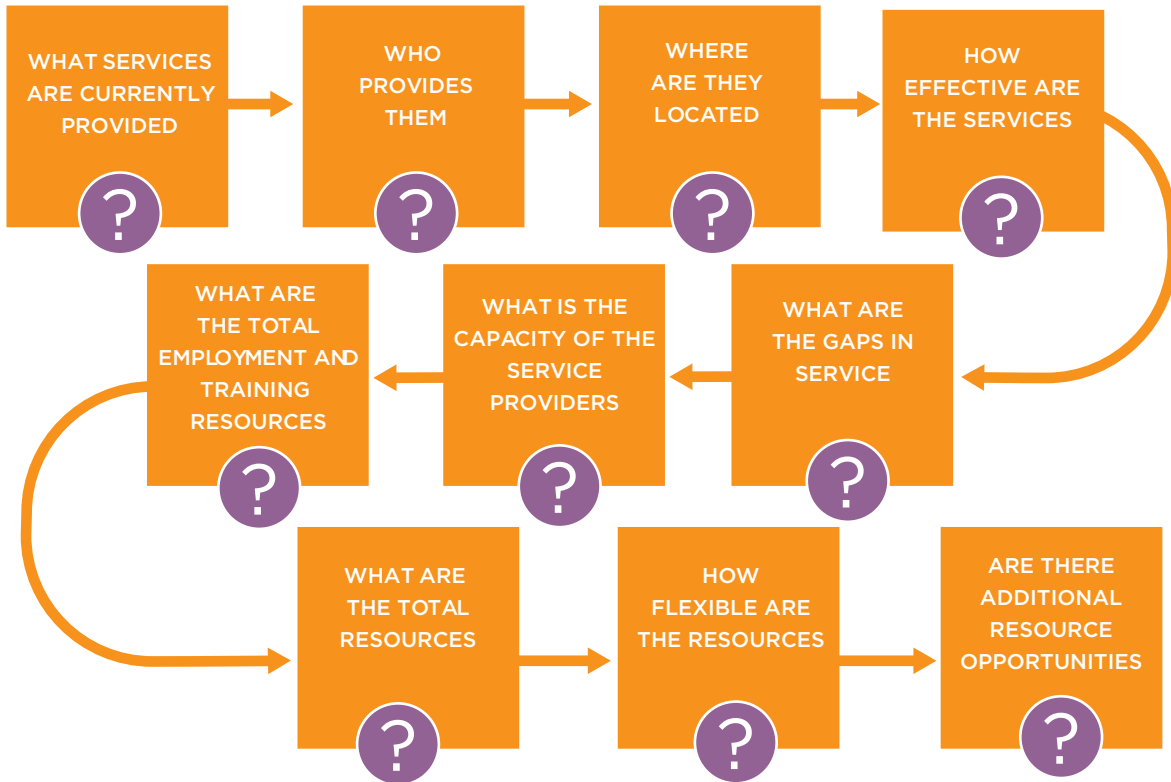
**Community service mapping/resource mapping** will allow partners to know what each public and private agency can provide to achieve the career goals of all populations including the specific services for targeted populations. The process will produce the data necessary for coordinating services among 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.

# ELEMENT ONE

## BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

Mapping will facilitate the following questions:



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.

# ELEMENT ONE

## BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

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.

	Workforce Agencies	Educational Institutions & Agencies	Economic Development Agencies	Human Services Agencies	Community-Based Organizations	Employers
Assess skills	•			•	•	
Assist with financial aid		•				
Assist with tuition and fees	•			•	•	•
Create a job friendly business environment			•			
Create links between credit and non-credit programs		•				
Develop curriculum		•			•	•
Develop curriculum with multiple entrances/exits and “modularized” (chunked) sections		•			•	•
Deliver training		•			•	•
Design programs		•			•	•
Engage employers	•	•	•	•	•	
Expand export opportunities			•			
Fund innovation			•			
Identify industry-recognized credentials	•	•		•	•	
Identify skill sets						•
Promote portability and flexibility		•				
Provide academic and personal counseling		•				
Provide career and personal counseling	•			•	•	
Provide case management	•				•	•
Provide credit for prior learning		•				
Provide employment						•
Provide incentives for business expansion			•			
Provide incentives to train incumbent workers			•			

# ELEMENT ONE

## BUILD CROSS-AGENCY PARTNERSHIPS AND CLARIFY ROLES

	Workforce Agencies	Educational Institutions & Agencies	Economic Development Agencies	Human Services Agencies	Community-Based Organizations	Employers
Provide job placement assistance	•	•		•	•	
Provide job retention services	•			•	•	
Provide job search assistance	•			•	•	
Provide labor market information	•		•			
Provide professional development opportunities	•	•		•	•	
Provide support services	•	•		•	•	
Provide system navigation	•			•	•	
Provide trainers/faculty		•			•	•
Provide training facilities & equipment		•				•
Provide work-based learning opportunities						•
Recruit and make referrals	•			•	•	
Recruit new business development			•			

### 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/2001120641504542734/info>
- Six Key Elements Action Planning Tool <https://learnwork.workforce3one.org/view/2001120642119875739/info>
- Service Mapping Tools <https://learnwork.workforce3one.org/view/2001126552554540652/info>
- 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

- *Career and Technical Programs of Study: A Design Framework*. U.S. Department of Education. <http://cte.ed.gov/initiatives/programs-of-study>
- *Best Practices for Career Pathways and Credentials: the Minnesota and Kansas Models*. U.S. Department of Labor. Webinar held January 10, 2014. [https://careerpathways.workforcegops.org/announcements/2015/02/18/12/22/Best\\_Practices\\_for\\_Career\\_Pathways\\_and\\_Credentials](https://careerpathways.workforcegops.org/announcements/2015/02/18/12/22/Best_Practices_for_Career_Pathways_and_Credentials)
- *Bridging Business and Education for the 21st Century Workforce: A Strategic Plan for Virginia's Career Pathways System*. State of Virginia. December 2008.
- *Career Pathways Initiative: Building Cross-Agency Partnerships* U.S. Department of Labor and Social Policy Research Associates, March 2011; <https://www.workforce3one.org/view/5001104843457641130/info>
- *Center for Faith-Based and Neighborhood Partnerships*, U.S. Department of Education. <http://www.ed.gov/edblogs/fbnp/>
- *CTE Clearinghouse: Business Partnerships and Community Involvement*. Association for Career and Technical Education (ACTE). [https://www.acteonline.org/clearinghouse\\_partnerships/#.VLLN6NLF-So](https://www.acteonline.org/clearinghouse_partnerships/#.VLLN6NLF-So)
- *Governor McAuliffe Unveils Major Workforce Development Initiative*. Virginia Office of the Governor, August 2014. <https://governor.virginia.gov/newsroom/newsarticle?articleId=5787>
- *From the Ground Up: Creating Sustainable Partnerships between Public Housing Authorities and Workforce Investment Boards*. U.S. Department of Housing and Urban Development and U.S. Department of Labor, Spring 2014. [http://portal.hud.gov/hudportal/documents/huddoc?id=14\\_dol\\_publication.pdf](http://portal.hud.gov/hudportal/documents/huddoc?id=14_dol_publication.pdf)
- *Joint Career Pathways Letter*. U.S. Departments of Education, Labor, and Health and Human Services. [http://wdr.doleta.gov/directives/attach/TEN/ten\\_36\\_11\\_att.pdf](http://wdr.doleta.gov/directives/attach/TEN/ten_36_11_att.pdf)
- Jolin, Michelle; Schmitz, Paul; and Seldon, Willa. *Community Collaboratives Whitepaper: A Promising Approach to Addressing America's Biggest Challenges*. Corporation for National and Community Service, 2012. <http://www.serve.gov/sites/default/files/ctools/CommunityCollaborativesWhitepaper.pdf>
- *Shared Vision, Strong Systems*. Alliance for Quality Career Pathways, Center for Law and Social Policy, June 2014, <http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf>

## **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.**

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#### **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

### 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*

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: 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.

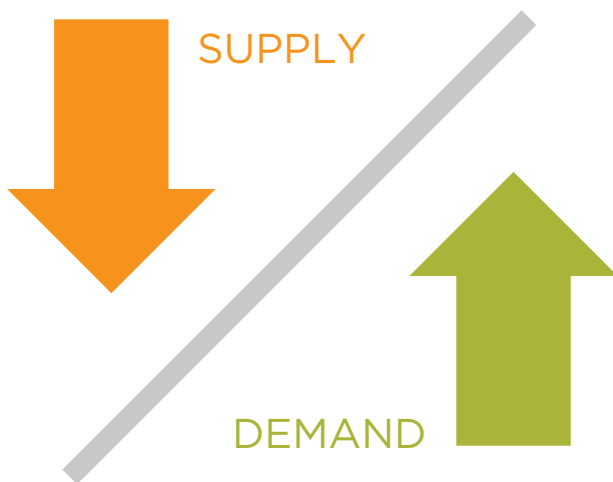
(B) DETERMINATION—The determination of whether an industry sector or occupation is in-demand under this paragraph shall be made by the State board or local board, as appropriate, using State and regional business and labor market projections, including the use of LMI.

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.

### 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.

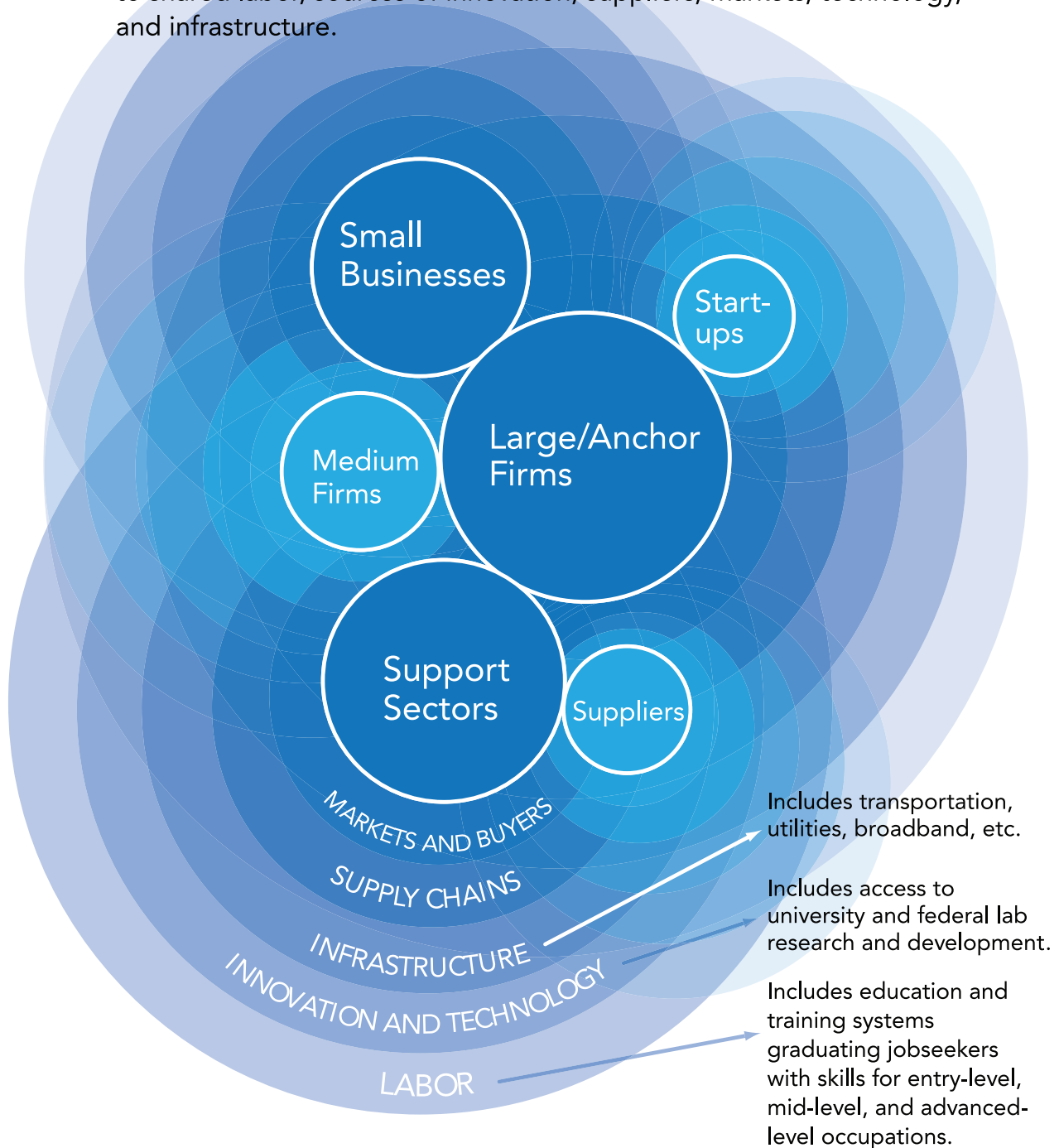
There are many other sources of labor market data to complement the traditional labor market information presented by the Bureau of Labor Statistics. Modern technology allows access to real-time data using software that pulls information from the internet from job posting boards and can provide supplemental data on labor supply and demand. Many larger employers have sophisticated Applicant Tracking Systems (ATSs) 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.

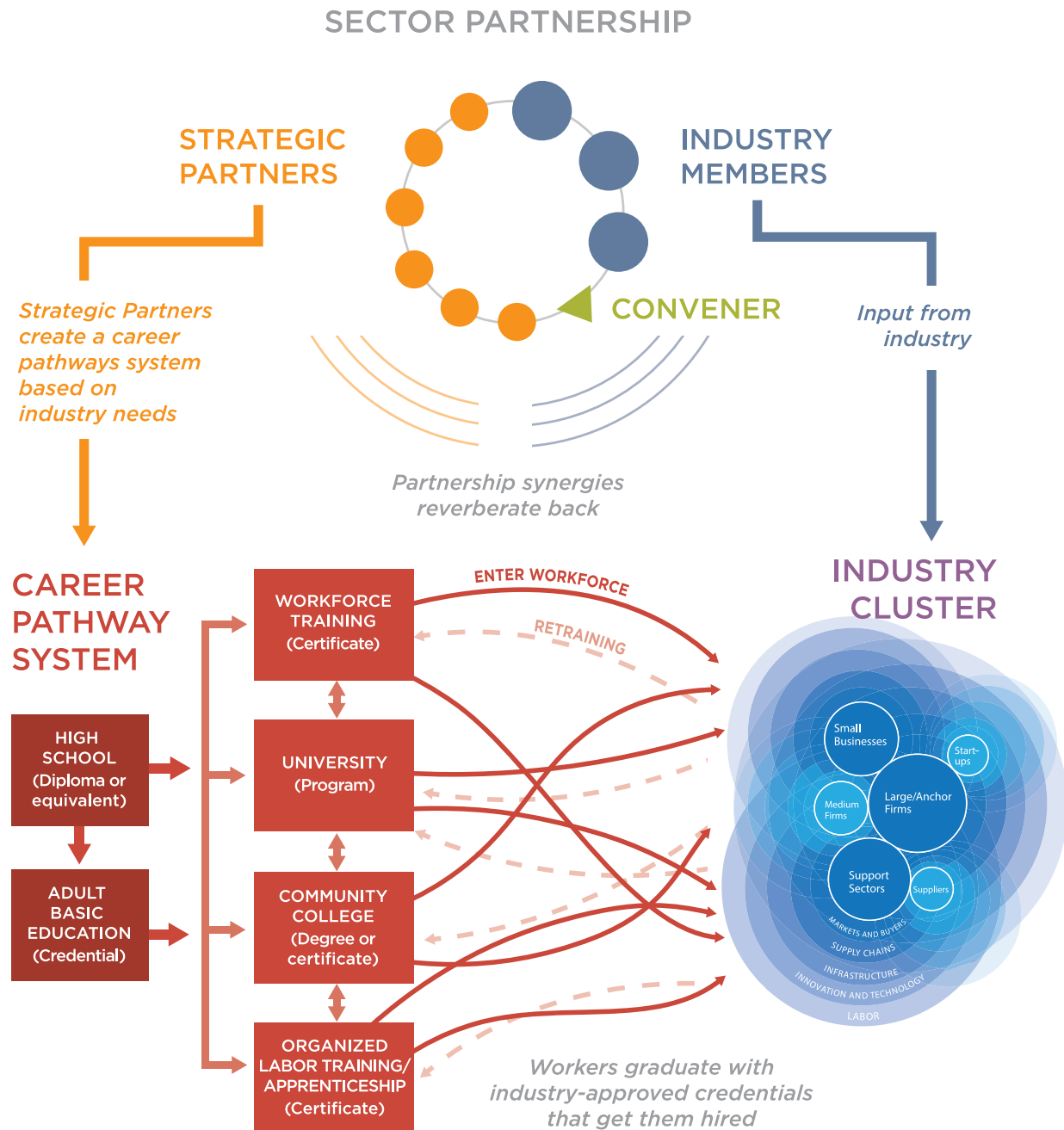
Existing sector partnerships may already have collaborated with local training institutions. Career pathways systems enhance the sector partnership by offering a clear sequence of

coursework and credentials that align with the natural progression of occupations within an industry or across industries—a pathway.

# ELEMENT TWO

## IDENTIFY INDUSTRY SECTORS AND ENGAGE EMPLOYERS

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:



#### 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.

	NEW RELATIONSHIP	WORKING RELATIONSHIP			STRATEGIC PARTNERSHIP
	LEVEL I	LEVEL II	LEVEL III	LEVEL IV	LEVEL V
Key Employer Role	Advising	Capacity-building	Co-designing	Convening	Leading
Stage of Relationship	Initial contact/ new relationship	Establishing trust and credibility	Working relationship	Trusted provider and collaborator	Full strategic partner
Engagement Examples by Level	Discuss hiring needs, skills, competencies; advise on curricula; contract training; hire graduates	Job site tours, speakers, mock interviews, internships, needs assessment, loan/donate equipment, recruiting	Curriculum and pathway development; adjunct faculty and preceptors	College-employer sectoral partnerships	Multi-employer / multi-college partnerships

## 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

- Groves, Garrett and Woolsley, Lindsey. *State Sector Strategies Coming of Age: Implications for State Policy Makers*. National Governor's Association, January 2013. <http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/state-sector-strategies-coming-o.html>
- *Pathways For Youth Employment: Federal Resources For Employers*. The White House, February 2015. [https://www.whitehouse.gov/sites/default/files/docs/pathways\\_for\\_youth\\_employment\\_Federal\\_resources\\_for\\_employers\\_feb\\_2015.pdf](https://www.whitehouse.gov/sites/default/files/docs/pathways_for_youth_employment_Federal_resources_for_employers_feb_2015.pdf)
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## **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.**

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#### **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.



# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS

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).

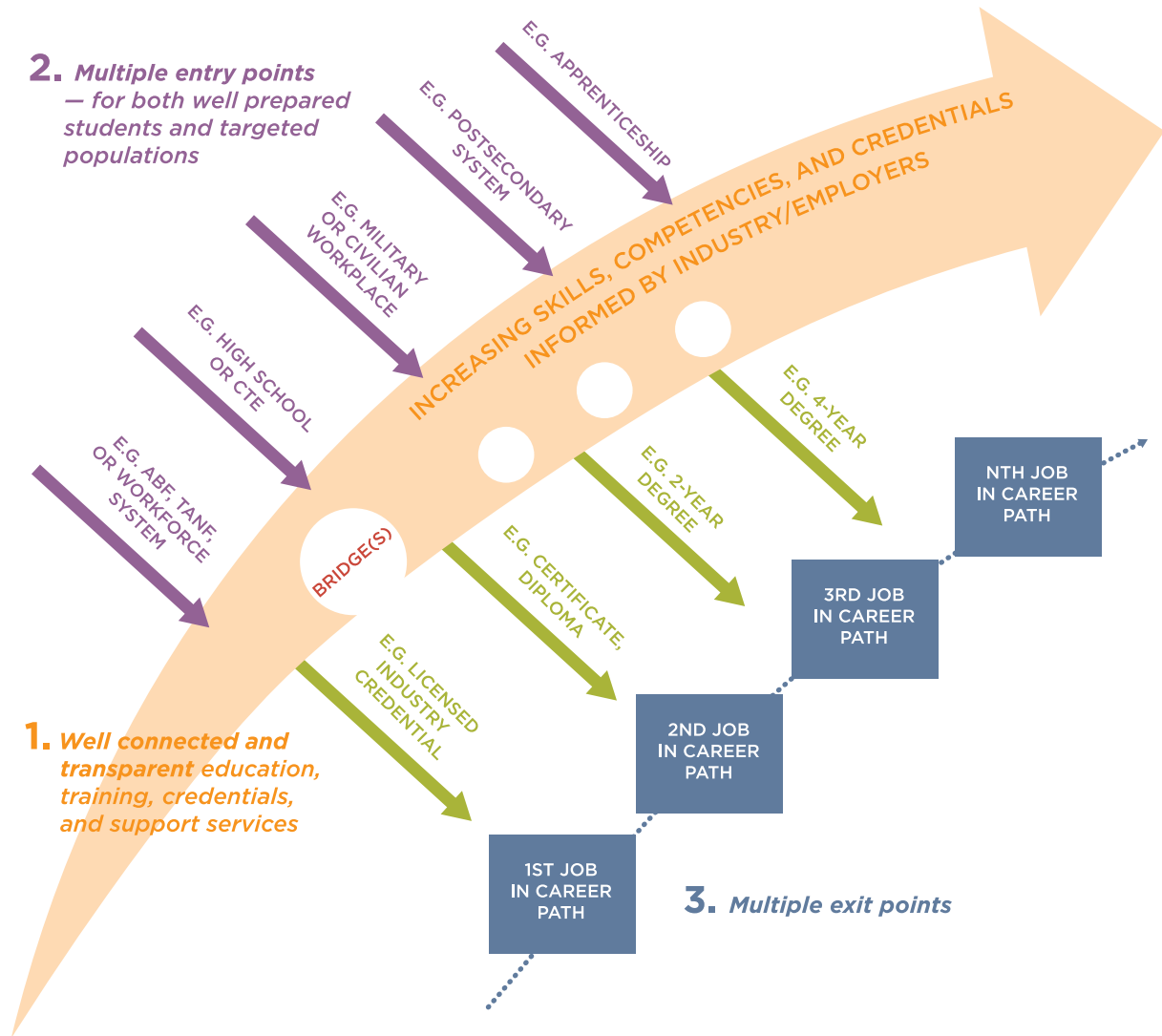
Adults, youth, and non-traditional, working learners often struggle to complete education and training programs that

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.

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS



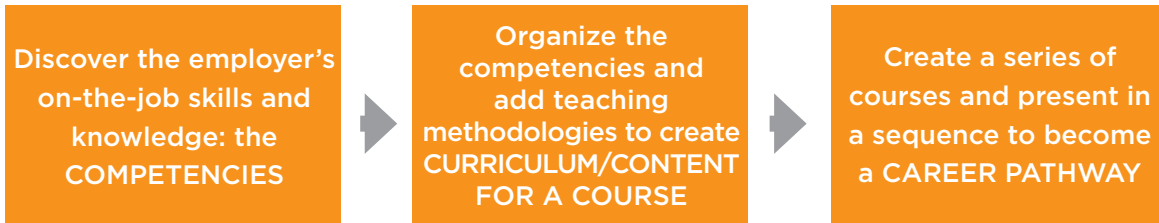
*Shared Vision, Strong Systems: The Alliance for Quality Career Pathways Framework* Version 1.0. Center for Law and Social Policy, June 2014.

### 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.

### Steps in Career Pathway Progress



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, certify, 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.

#### 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.

#### 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.

#### 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

#### 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 Progreso Latino

Staff members at *Instituto del Progreso 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/>

### **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**

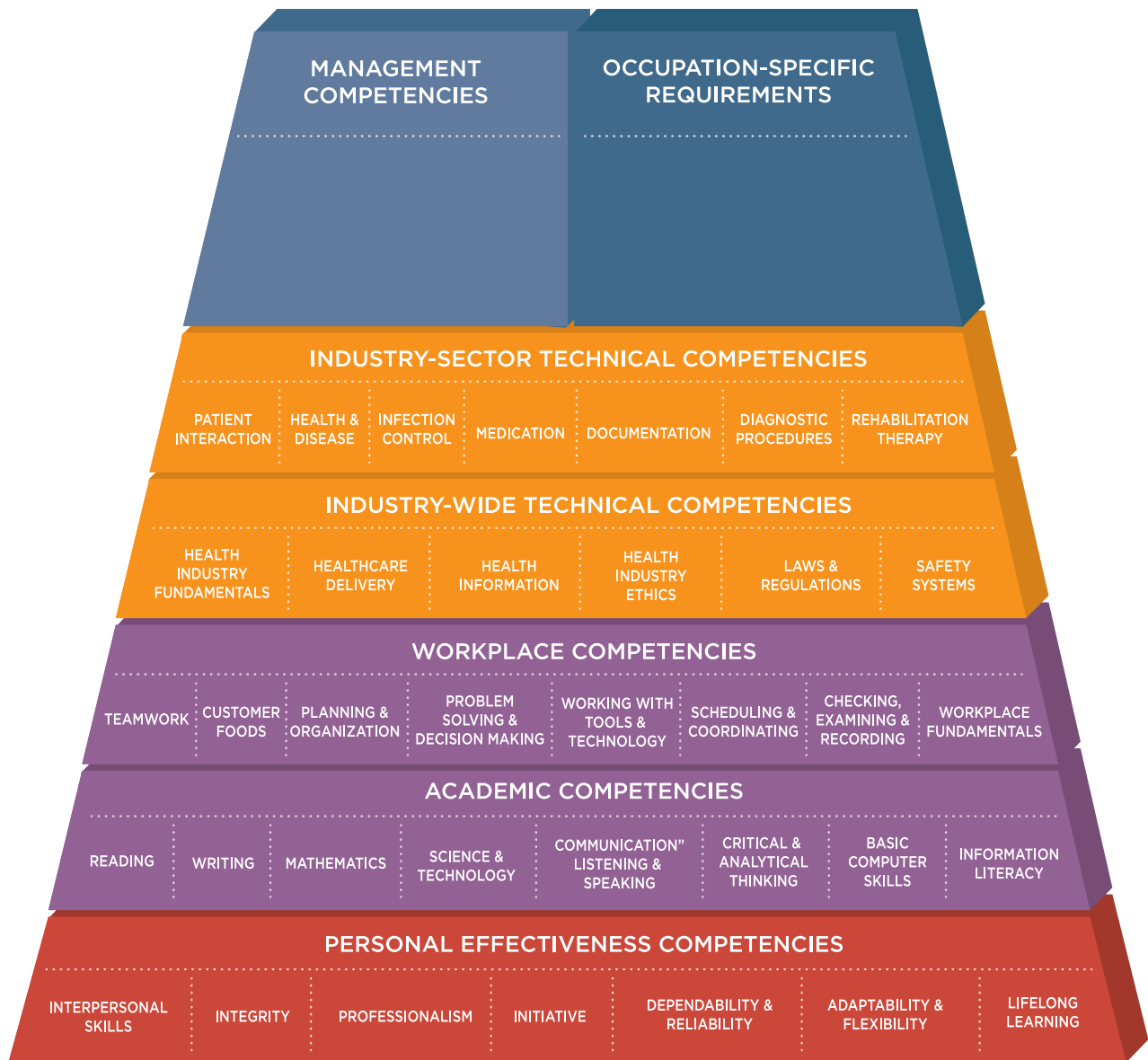
- Educator reviews the existing competency models in the database as a reference point with employer;
- Employer identifies the critical work functions or tasks in the workplace for a specific job;
- Employer and educator engage Subject Matter Experts (SMEs) currently performing the job tasks;
- SMEs 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.

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS



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

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.

### 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?

### 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.

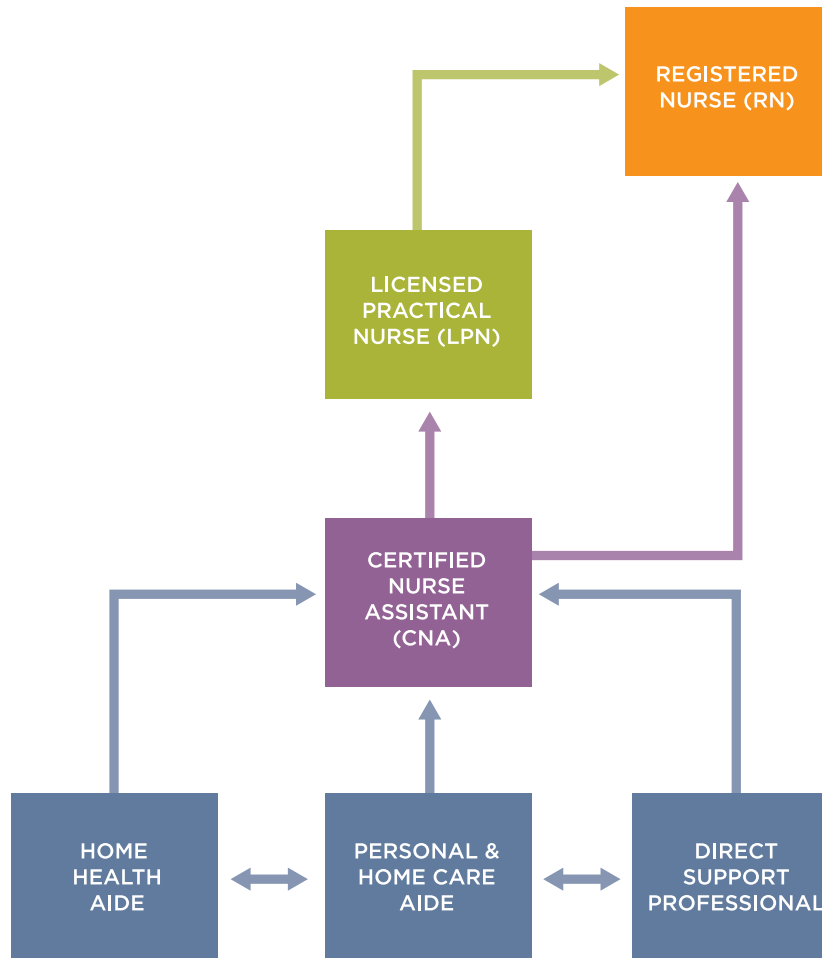
Career ladders display only “vertical” movement between jobs.

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.



### Example of Career Lattice for Registered Nurses



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

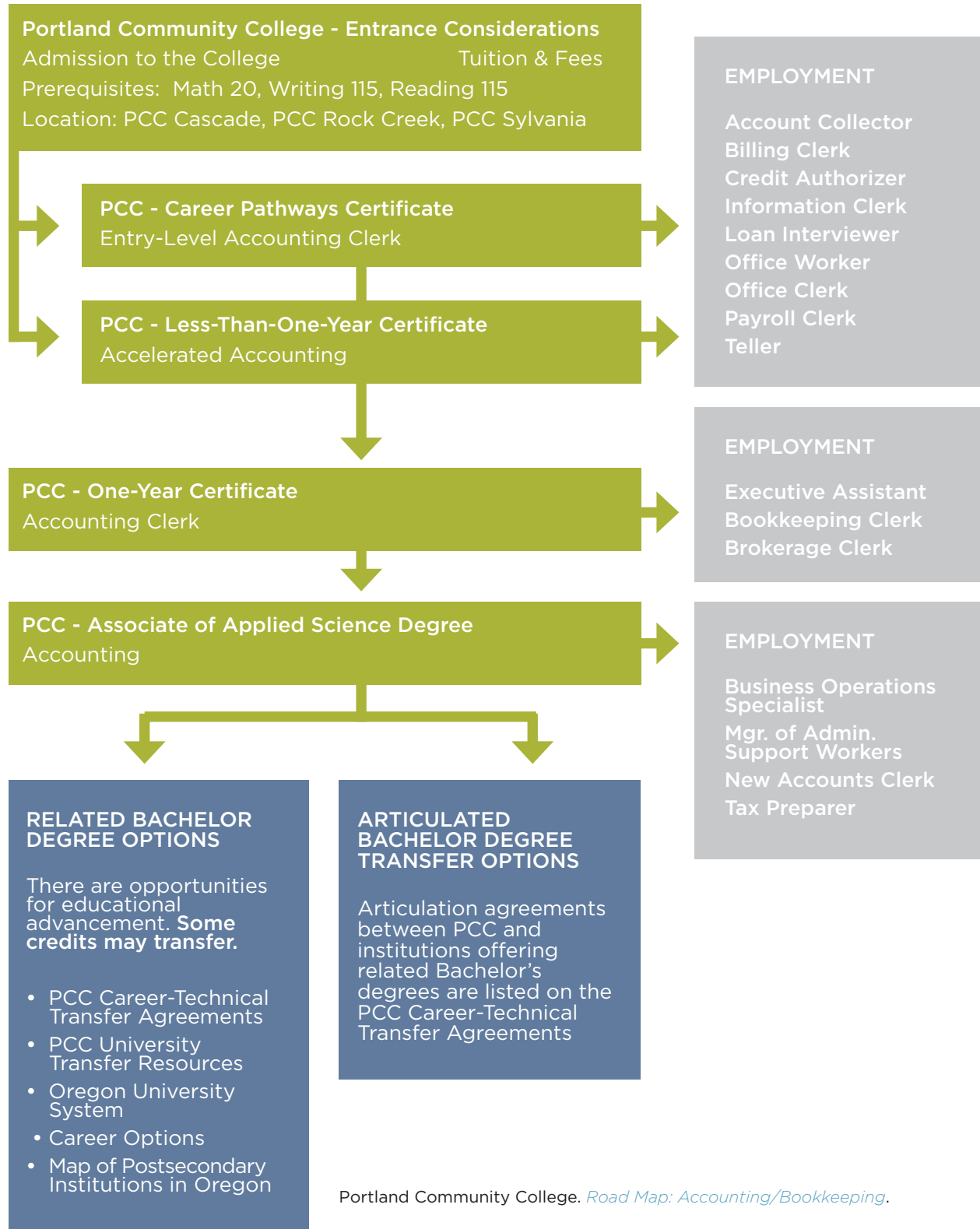
- Are the competency lists accurate and/or have they changed recently?
- Are the skills still critical for the occupation and are there job vacancies in the occupation?
- Does the progression of courses and learning experience match learning on the job and make sense within the industry?
- Are the ladder 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?

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS

### Career Pathways Roadmap: Accounting/Bookkeeping

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



### **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.

### PROMISING PRACTICE: Welcome Back Center of Suburban Maryland

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

#### EDUCATIONAL AWARD

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

**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.

**DIPLOMA:** An award signifying the completion of a course of study.

#### CERTIFICATION/PERSONNEL CERTIFICATION

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.

#### APPRENTICESHIP CERTIFICATE

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.

#### 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.

#### INDUSTRY-RECOGNIZED CREDENTIALS

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: [www.careeronestop.org/businesscenter/certifications/certification-finder.aspx](http://www.careeronestop.org/businesscenter/certifications/certification-finder.aspx)

#### STACKABLE CREDENTIAL

“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.”

#### PORTABLE CREDENTIAL

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.”

### 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.

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS

**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 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/>



### 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,

#### CAREER PATHWAYS FYI: WIOA Definition of Integrated Education & Training

The term “integrated education and training” means a service approach that provides adult education and literacy activities concurrently and contextually with workforce preparation activities and workforce training for a specific occupation or occupational cluster for the purpose of educational and career advancement.

The articulated career pathway should include short-, moderate-, and long-term training and education programs to match the availability of different students (especially working learners and those balancing adult responsibilities) and include multi-level employment opportunities at different points of certificate or degree attainment.

#### PROMISING PRACTICE: Washington State I-Best Program

In an effort to be more deliberate in adult literacy and job training, Washington State college leaders developed a model that integrates Adult Basic Education with English Language Acquisition (ELA) courses with technical training aligned to state career pathways. Research shows that relatively few English language learners transition to workforce training from basic skills courses. English language learners typically take a patchwork of credit and non-credit courses, disconnected from industry-recognized training and credentials. The state addressed this problem by developing the **Integrated Basic Education and Skills Training (I-BEST)** program, pairing ELA and Adult Basic Education instructors and professional-technical instructors who provide basic education and workforce skill training concurrently. The I-BEST model provides a mechanism for accelerating learning while simultaneously preparing students for work and higher-wage positions contributing to Washington State's economy. For more information see: [http://sbctc.edu/college/e\\_integratedbasiceducationandskillstraining.aspx](http://sbctc.edu/college/e_integratedbasiceducationandskillstraining.aspx)

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) (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](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

##### Basic Career Services

- (i) eligibility determination;
- (ii) outreach, intake, orientation to services;
- (iii) initial assessment;
- (iv) labor exchange services;
- (v) referrals to and coordination of activities;
- (vi) provisions of workforce and labor market statistics;
- (vii) provisions of performance information and program cost on eligible providers of training;
- (viii) information on local performance accountability measures;
- (ix) availability of supportive services or assistance;
- (x) information on filing claims for Unemployment compensation; and
- (xi) information on applying for financial aid for training and education programs.

##### (xiii) Individualized Career Services

- services, if determined to be appropriate in order for an individual to obtain or retain employment, that consist of—
- (I) comprehensive assessment;

- (II) development of an individual employment plan;
- (III) group counseling;
- (IV) individual counseling;
- (V) career planning;
- (VI) short-term pre-vocational services;
- (VII) internships and work experience;
- (VIII) workforce preparation activities;
- (IX) financial literacy services;
- (X) out-of-area job search assistance, relocation assistance; and
- (XI) English language acquisition and integrated education and training programs.

##### (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.

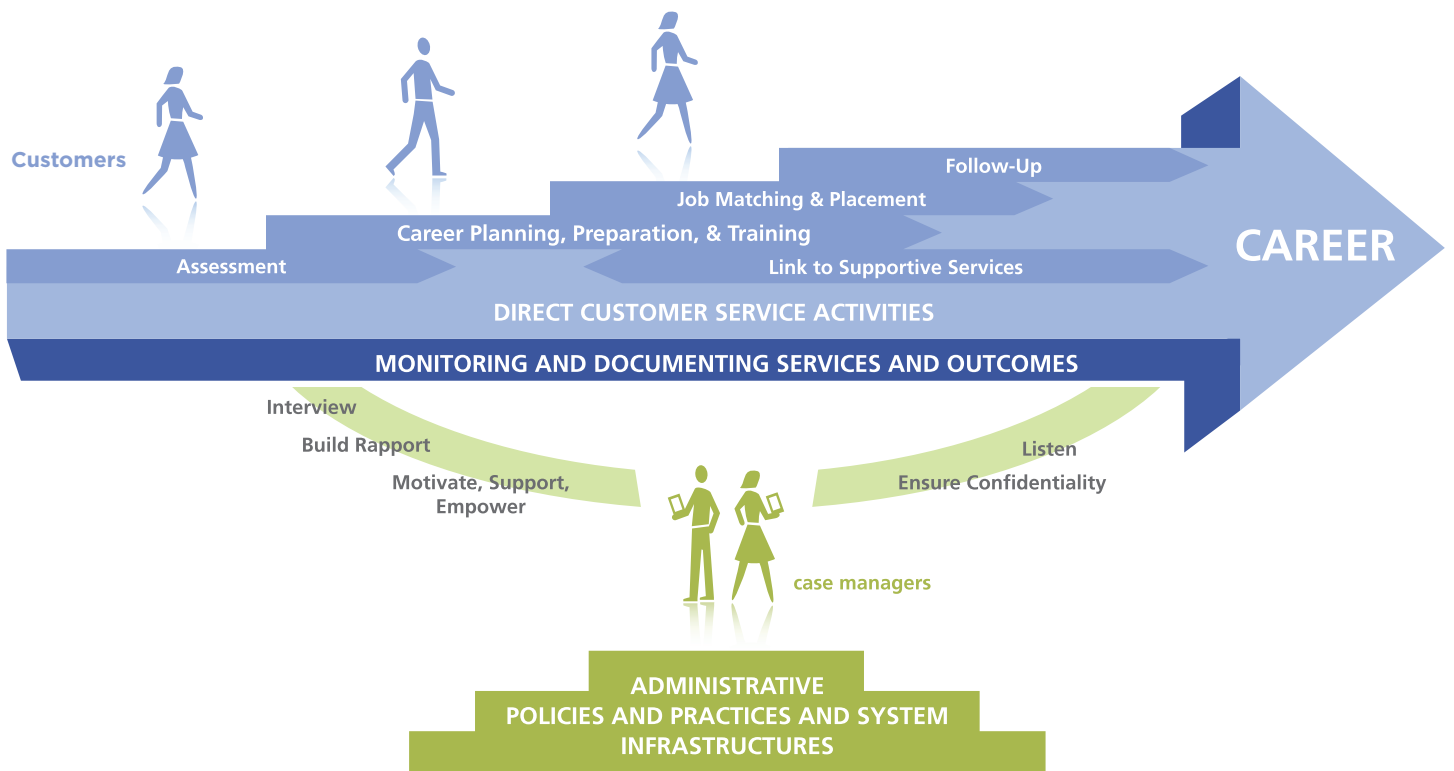
### CAREER PATHWAYS FYI: Case Management Services May Include

- **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.

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS



Laird, Elizabeth and Holcomb, Pamela. Issue Brief - Effective Case Management: *Key Elements and Practices from the Field. Mathematica Policy Research*, 2011.

# ELEMENT THREE

## DESIGN EDUCATION AND TRAINING PROGRAMS

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](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.

### CAREER PATHWAYS FYI: Academic Support Services May Include

- Providing the opportunity to participate in groups called learning communities or cohorts where they may interact with other students who share some of the same challenges;
- Assisting in learning how to study most effectively through workshops on study skills, test strategies, note-taking strategies, and time management;
- Providing career-specific courses for individuals needing language assistance;
- Providing for or arranging for tutors;
- Providing learning labs where one-on-one computer-based tutoring may be offered;
- Providing dropout prevention strategies and counseling to address barriers and help improve student success; and
- Providing special accommodations for an individual with a disability such as an increase in test-time or readers for an individual who is blind.

### CAREER PATHWAYS FYI: WIOA Definition of Supportive Services

**SUPPORTIVE SERVICES.**—The term “supportive services” means services such as transportation, child care, dependent care, housing, and needs-related payments, that are necessary to enable an individual to participate in activities authorized under this Act.

**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.

Partner organizations such as American Job Centers or community-based organizations may provide the employment assistance in the career pathways collaboration. The organization responsible for case management services should refer the participant to the appropriate organization.

**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

- Employability Skills Framework. U.S. Department of Education. <http://cte.ed.gov/employabilityskills/index.php/framework/#>
- Guideposts for Success. National Collaborative on Workforce and Disability. <http://www.ncwd-youth.info/guideposts>
- 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/>
- Derr, Michelle and Holcomb, Paula. Issue Brief: *Employer Resource Networks - Uniting Businesses And Public Partners to Improve Job Retention and Advancement for Low-Wage Workers*. Mathematica Policy Research, June 2010. Commissioned by U.S. Department of Labor. [http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired\\_brief1.pdf](http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired_brief1.pdf)
- Gash, Alison and Mack, Melissa. Issue Brief: *Career Ladders for the Hard to Employ*. Social Policy Research Associates, September 2010. Commissioned by the U.S. Department of Labor. <http://www.careerladdersproject.org/docs/Issue%20Brief.pdf>
- I-Best: *Integrated Basic Education and Skills Training*. Washington State Board for Community & Technical Colleges. [http://www.sbctc.ctc.edu/college/e\\_integratedbasiceducationandskillstraining.aspx](http://www.sbctc.ctc.edu/college/e_integratedbasiceducationandskillstraining.aspx)
- Ohio Stackable Certificate: *Models for Success*. Community Research Partners, February 2008. [http://www.workingpoorfamilies.org/pdfs/Ohio\\_Stackable.pdf](http://www.workingpoorfamilies.org/pdfs/Ohio_Stackable.pdf)
- Laird, Elizabeth and Holcomb, Pamela (2011). Issue Brief - *Effective Case Management: Key Elements and Practices from the Field*. Mathematica Policy Research: [http://www.mathematica-mpr.com/-/media/publications/PDFs/labor/case\\_management\\_brief.pdf](http://www.mathematica-mpr.com/-/media/publications/PDFs/labor/case_management_brief.pdf)
- Prince, David and Jenkins, Davis. *Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Longitudinal Student Tracking Study*. Community College Research Center, Teacher's College, Columbia University, April 2005. <http://ccrc.tc.columbia.edu/publications/low-skill-adults-policy.html>
- Shared Vision, Strong Systems: *The Alliance for Quality Career Pathways Framework Version 1.0*. Center for Law and Social Policy. June 2014. <http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf>
- Zacker, Heather B. *Creating Career Pathways for Frontline Health Care Workers*. Jobs for the Future, January 2011. <http://www.jff.org/publications/creating-career-pathways-frontline-health-care-workers>
- 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 TEGL 15-10, 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/buildingblocksforbuildingskills>

## **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.**

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#### **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.

# ELEMENT FOUR

## IDENTIFY FUNDING NEEDS AND SOURCES

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.

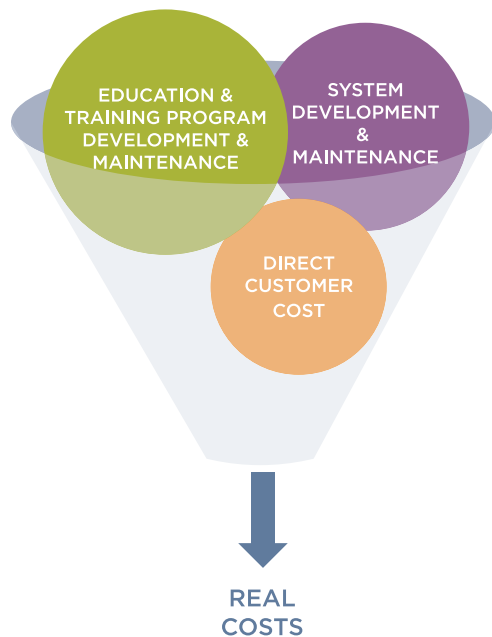
### CAREER PATHWAYS FYI: Braided Funding

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.

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.

### COMPONENT 4.1: Identify System, Program Development, and Participant Costs.

As a first step, leadership team members should assess the costs associated with system development and maintenance, program development and operations, and participant cost.



#### System Costs

System development and maintenance costs include those required to create, operate, and sustain the career pathways system. While costs associated with running education and training programs may be obvious, those associated with coordinating cross-agency functions (including wrap-around supportive services) and overall system development and maintenance may be overlooked.

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-localregional-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/>

# ELEMENT FOUR

## IDENTIFY FUNDING NEEDS AND SOURCES

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/2001120642445820802/i>

#### Reports and Publications

- Braided Funding Toolkit, Jobs for the Future, 2014. [http://application.jff.org/braided\\_funding\\_Toolkit/](http://application.jff.org/braided_funding_Toolkit/)
- Dollars and Sense: *Using Federal Resources to Fund Career Pathways and Bridges*, Center for Law and Social Policy, November 2010 <http://www.clasp.org/resources-and-publications/webinar-dollars-and-sense-using-Federal-resources-to-fund-career-pathways-and-bridges>
- Funding Career Pathways and Career Pathway Bridges: *A Federal Policy Toolkit for States*, Center for Law and Social Policy, February 2015. <http://www.clasp.org/issues/postsecondary/pages/funding-career-pathways-and-career-pathway-bridges-a-Federal-funding-Toolkit-for-states>
- Larsen, Chandra and Henriksen, Denise. Leveraging Funding Opportunities for Disadvantaged Populations: *Strategies and Sources*. Social Policy Research Associates, September 2010. Commissioned by the U.S. Department of Labor. [http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired\\_brief2.pdf](http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired_brief2.pdf)

## **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.**

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#### **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.

### 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.

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 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.



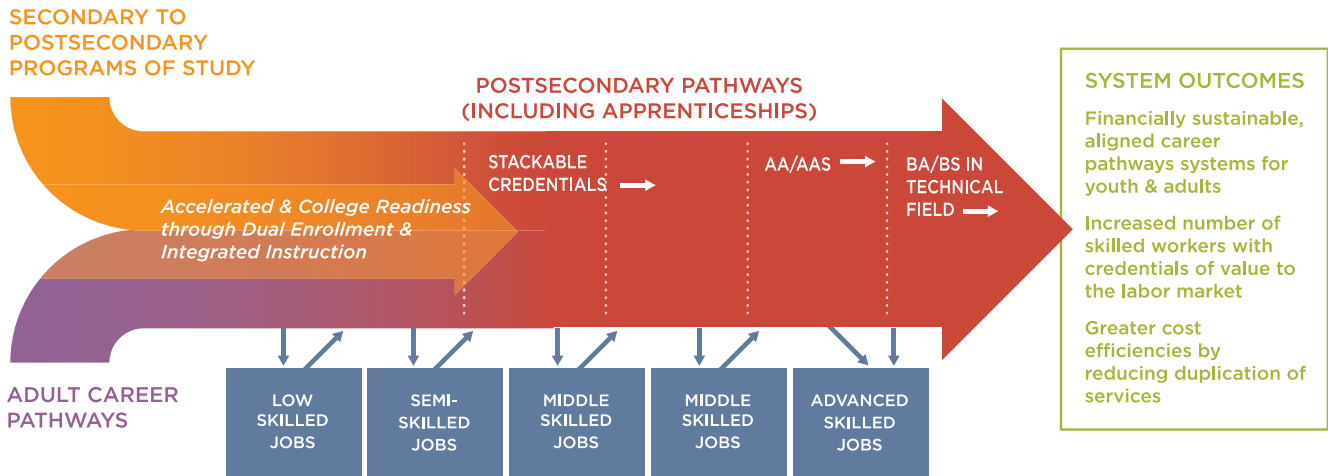
whether the programs in the state are job-driven. Governors and State Workforce Development Boards can set industry priority areas based on labor market demand. State agencies can adopt policies that promote the use of data (including labor market information and longitudinal data) for accountability 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



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.

### 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.

### PROMISING PRACTICE: Public/Private Partnership Massachusetts

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 TOOLBOX

### Team Tools

- Six Key Elements Graphic Framework <https://learnwork.workforce3one.org/view/2001120641504542734/info>
- Six Key Elements Action Planning Tool <https://learnwork.workforce3one.org/view/2001120642119875739/info>
- Six Key Elements Readiness Assessment Tool (available in Section 2 of the Toolkit)
- 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>
- Los Angeles Unified School District - Los Angeles Academy/Irvine Foundation *Linked Learning Initiative*: <http://achieve.lausd.net/Page/524>
- Claggett, Mary and Uhalde, Ray. *The Promise of Career Pathways Systems Change and Initiatives*. Jobs for the Future, July 2012. Commissioned by the U.S. Department of Labor. <http://www.jff.org/publications/promise-career-pathways-systems-change>
- Pathways to Prosperity Network: *A State Progress Report, 2012-2014*. Jobs for the Future, August 2014. <http://www.jff.org/sites/default/files/publications/materials/Pathways-to-Prosperity-for-Americas-youth-080514.pdf>
- Couturier, Lara. *Policy Meets Pathways: A State Policy Agenda for Transformational Change*. Jobs for the Future, December 2014, <http://www.jff.org/publications/policy-meets-pathways-state-policy-agenda-transformational-change>
- Shared Vision, Strong Systems: *The Alliance for Quality Career Pathways Framework Version 1.0*. Center for Law and Social Policy, June 2014, <http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf>
- Harmon, Tim. *Shared Accountability in WIOA and Career Pathways*. Center for Law and Social Policy, December 2014, [http://www.clasp.org/resources-and-publications/publication-1/WIOA\\_sharedaccountability.pdf](http://www.clasp.org/resources-and-publications/publication-1/WIOA_sharedaccountability.pdf)



## **ELEMENT SIX**

### **MEASURE SYSTEM CHANGE AND PERFORMANCE**

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

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#### **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

### 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.

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.

### COMPONENT 6.1: Define Desired System, Program, and Participant Outcomes.

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

#### CAREER PATHWAYS FYI: WIOA Joint Performance Measures for Youth

- (1) Percentage of participants in education, training, or unsubsidized employment 2nd quarter after exit;
- (2) percentage of participants in education, training, or unsubsidized employment 4th quarter after exit;
- (3) median earnings of participants in unsubsidized employment during the second quarter after exit;
- (4) percentage of participants who obtain a recognized credential or secondary diploma (or equivalent) during participation or within one year after exit; and
- (5) percentage of participants who, during a program year, are in an education or training program that leads to a recognized postsecondary credential or employment and who are achieving measureable skill gains toward such a credential or employment.

#### CAREER PATHWAYS FYI: WIOA Measures for Employer Participation

- All WIOA programs will be required to measure their effectiveness in serving employers.
- The specific measure(s) to be used will be developed by WIOA Federal agencies by June 2016.

#### CAREER PATHWAYS FYI: WIOA Joint Performance Measures for Adults

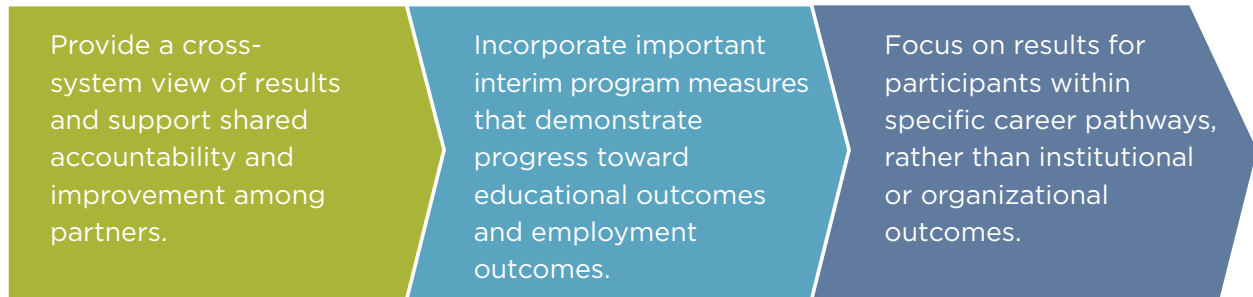
- (1) Percentage of participants in unsubsidized employment 2nd quarter after exit;
- (2) percentage of participants in unsubsidized employment 4th quarter after exit;
- (3) median earnings of participants in unsubsidized employment during the second quarter after exit;
- (4) percentage of participants who earned a recognized postsecondary credential or a secondary school diploma (or equivalent) during participation or within one year after exit; and
- (5) percentage of participants who, during a program year, are in an education or training program that leads to a recognized postsecondary credential or employment and who are achieving measureable skill gain toward such a credential or employment.

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:



### 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 MEASURES

- # 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

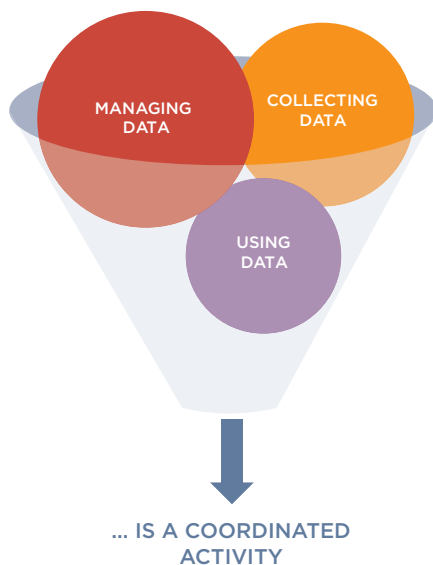
and the data definitions are common across all partners participating in the career pathways system. By integrating data systems and sharing data, the leadership team can evaluate system as well as program impact over longer periods. The leadership team should gather multi-year (longitudinal) data on 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.

### CAREER PATHWAYS FYI: Data Sharing Agreements specify

- Organizations/agencies involved;
- Data sets to be shared;
- Length of time access to data is available;
- The process for sharing data;
- Confidentiality agreements; and
- Liability information.

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.

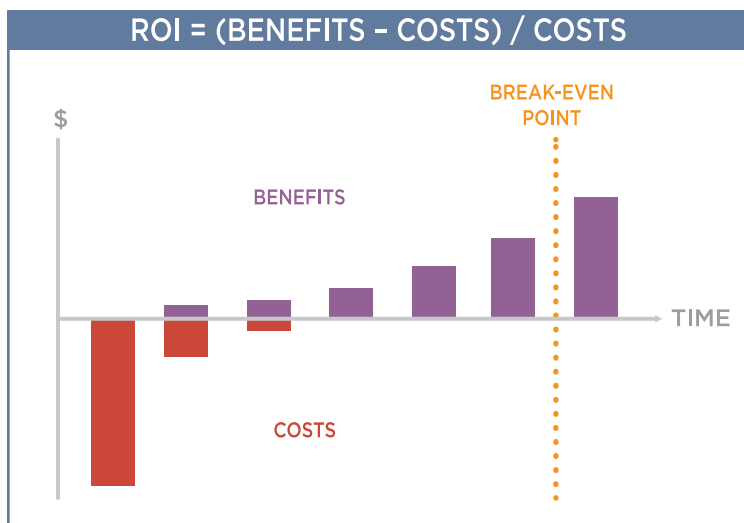
The measurement design process may include the development of a framework for measuring and understanding the net impact and ROI of the overall career pathways effort. An ROI framework should include a control group that compares program outcome participant data with subjects that did not participate 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.

#### HOW TO: Use Reporting System Outcome data

- Identify best practices for replication;
- Improve upon system and program design;
- Increase employer engagement;
- Sustain system development and engage more partners;
- Apply for competitive funds based on evidence-based practices;
- Request for funding and support from state and local legislators;
- Encourage the development of future career pathways programs; and
- Encourage enrollment of participants in career pathways programs with proven results.

The graphic below provides an example of how to calculate ROI

#### ROI CALCULATION EXAMPLE



#### 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

## ELEMENT SIX TOOLBOX

### Team Tools

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

### Reports and Publications

- *A Framework for Measuring Career Pathways Innovation*. Center for Law and Social Policy (CLASP), February 2013. <http://www.clasp.org/resources-and-publications/files/CLASP-AQCP-Metrics-Feb-2013.pdf>
- Anderson, Eyster, Lerman, Clymer, Conway, and Montes. *The First Year of Accelerating Opportunity: Implementation Findings from the States and Colleges*. Jobs for the Future. September 2014 <http://www.jff.org/publications/first-year-accelerating-opportunity-implementation-findings-states-and-colleges>
- Roberts, Brandon and Price, Derek. *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/>
- Roberts, Brandon and Price, Derek. *Strengthening State Systems for Adult Learners: An Evaluation of the First five Years of Shifting Gears*. The Joyce Foundation, December 2012. <http://www.joycefdn.org/shifting-gears/reports/>
- Schanker, Jennifer B. and Taylor, Judith C. *Forging New Pathways: The Impact of Breaking Through Initiative in Michigan*. Jobs for the Future, November 2012. <http://www.jff.org/publications/forging-new-pathways-impact-breaking-through-initiative-michigan>
- 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/>
- U.S. Department of Labor, Employment and Training Administration, *Workforce Data Quality Initiative*. <http://www.doleta.gov/performance/workforcedatagrants09.cfm>
- U.S. Department of Education, Statewide Longitudinal Data Systems (SLDS). <http://www2.ed.gov/programs/slids/factsheet.html>
- U.S. Department of Human Services, Administration for Children and Families. *Innovative Strategies for Increasing Self-Sufficiency Study*. April 2014. <http://www.acf.hhs.gov/programs/opre/resource/innovative-strategies-for-increasing-self-sufficiency-study>
- U.S. Department of Labor, Employment and Training Administration, *Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant Program, Data Elements for Individual-Level Participant Data Collection*. <http://www.doleta.gov/taaccct/resources.cfm>
- DeRenzis, King, Prince, and Wilson. *Using Dashboards for State Workforce Planning*, National Skills Coalition, February 2015: [https://www.nationalskillscoalition.org/resources/publications/file/sweap\\_using\\_dashboards\\_for\\_state\\_workforce\\_planning.pdf](https://www.nationalskillscoalition.org/resources/publications/file/sweap_using_dashboards_for_state_workforce_planning.pdf)
- DeRenzis, King, Prince, and Wilson. *Who is Being Served Well? Using Pathway Evaluators for State Workforce Planning*, National Skills Coalition, February 2015: [http://www.nationalskillscoalition.org/resources/publications/file/SWEAP\\_Pathway\\_pathway](http://www.nationalskillscoalition.org/resources/publications/file/SWEAP_Pathway_pathway)

**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.



# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
<b>1) Build cross-agency partnerships and clarify roles.</b>				
A. WIOA Core Partners:				
<input type="checkbox"/> Title 1B Adult, Youth, and Dislocated Workers				
<input type="checkbox"/> Title II Adult Education and Literacy				
<input type="checkbox"/> Title III Wagner-Peyser Act Employment Services				
<input type="checkbox"/> Title IV Rehabilitation Act of 1973 Title I				
B. WIOA Additional Partners:				
<input type="checkbox"/> Postsecondary Education				
<input type="checkbox"/> State Human Services Agency (TANF)				
<input type="checkbox"/> Supplemental Nutrition Assistance Program (SNAP)				
<input type="checkbox"/> Supplemental Nutrition Assistance Program (SNAP Employment & Training)				
<input type="checkbox"/> Trade Readjustment Assistance Program (Trade Act of 1974)				
<input type="checkbox"/> Veterans Employment & Training				
<input type="checkbox"/> Unemployment Compensation				
<input type="checkbox"/> Older Worker Programs (Senior Community Service Program)				
<input type="checkbox"/> HUD Employment & Training (Housing & Urban Development)				
<input type="checkbox"/> Community Service Block Grant				
<input type="checkbox"/> 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.				
<b>2) Identify industry sectors and engage employers.</b>				
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.				



# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
C. Clarify and define employers' role in program development and operations.				
<input type="checkbox"/> Affirm the set of foundational academic, work readiness, and technical skills, abilities, and knowledge.				
<input type="checkbox"/> Affirm the required certificates and credentials.				
<input type="checkbox"/> Help design education and training programs.				
<input type="checkbox"/> Assist in instruction.				
<input type="checkbox"/> Provide on-site training space.				
<input type="checkbox"/> Provide real equipment, supplies, or tools.				
<input type="checkbox"/> Make real industry-based projects.				
<input type="checkbox"/> Co-invest resources in program development and/or implementation.				
<input type="checkbox"/> Assist in developing certification/credentialing process.				
<input type="checkbox"/> Provide mentoring or work-based learning opportunities.				
<input type="checkbox"/> Hire completers.				
D. Identify existing training systems within industry and career ladders/lattices.				
E. Identify the skill competencies and associated training needs needed in a given career ladder.				
F. Implement a process to sustain and grow business partnerships.				
<b>3) Design education and training programs.</b>				
A. Identify potential “education, training, and service partners”, including secondary education.				
B. Identify target populations, entry points, and recruitment strategies for target populations.				
C. Review or modify competency models with employers to ensure they meet industry standards.				
D. Build career ladders and lattices with employers that lead to industry-recognized credentials				
E. Modify existing program offerings to mirror competency models and career ladders/lattices and meet industry recognized and/or postsecondary credentials.				

# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
F. Analyze education and training institutions' capacity to respond to industry demands ( <i>i.e., classrooms and lab space; educational staff; work-based learning sites, training spaces, and equipment/tools, materials/supplies; credentialed instructors; and technology, etc.</i> ).				
G. Design and promote work-based learning opportunities ( <i>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.</i> ).				
H. Design programs that apply integrated, accelerated, and contextualized strategies to build skills that are industry-recognized.				
I. Consider credit for prior learning in all program design and allow participants to progress at their own pace along a career pathways program.				
J. Embed academic content ( <i>e.g., reading, writing, mathematics</i> ) within curricula that is relevant to real workplace tasks.				
K. Design curriculum to allow for multiple entry/exit points.				
L. Design self-paced curriculum to allow participants to progress based on their abilities and time commitment ( <i>e.g., class scheduling; e-learning; work-based learning; computer-based or web-based lessons</i> ).				
M. Provide participants with appropriate financial aid information to include state grant programs, Federal financial aid, and program eligibility for special populations.				
N. Provide career assistance, assessment, and develop a student-specific academic plan ( <i>select a career pathway</i> ) and assist participant in navigating the system.				
O. Provide academic support, school adjustment and retention services to include tutors and ELL services.				
P. Arrange for and select an organization to provide case management services.				

# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
Q. Arrange for or provide supportive services to include childcare, transportation, housing, financial assistance, life management skills, and money management skills.				
R. Provide employment assistance for participants to include job referrals, job seeking skills training, and retention services (e.g., job coach).				
<b>4) Identify funding needs and sources.</b>				
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.				
<input type="checkbox"/> Tuition, fees, books, and supplies ( <i>training-related tools and equipment</i> )				
<input type="checkbox"/> Academic support and tutoring				
<input type="checkbox"/> Career counseling, advising, and planning				
<input type="checkbox"/> Case management and coaching ( <i>including navigation of financial aid options and educational programs, and support services</i> )				
<input type="checkbox"/> Mentoring services for youth				
<input type="checkbox"/> Assessment services				
<input type="checkbox"/> Work experience and work-based learning opportunities.				
<input type="checkbox"/> Supportive services ( <i>e.g., transportation, childcare, living expenses, etc.</i> )				
D. Explore and secure public or private sources ( <i>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&amp;T</i> ) 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.				

# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
<input type="checkbox"/> DOL WIOA Title IB: Youth, Adult, and Dislocated Workers.				
<input type="checkbox"/> DOL WIOA Title III: Employment Services (Wagner-Peyser).				
<input type="checkbox"/> DOL Trade Adjustment Assistance.				
<input type="checkbox"/> DOL Registered Apprenticeship and Pre-Apprenticeship.				
<input type="checkbox"/> ED WIOA Title II: Adult Education and Family Literacy Act.				
<input type="checkbox"/> ED Carl D. Perkins Career and Technical Education.				
<input type="checkbox"/> ED Pell Grants.				
<input type="checkbox"/> ED WIOA Title IV: Vocational Rehabilitation Services.				
<input type="checkbox"/> HHS Temporary Assistance for Needy Families (TANF).				
<input type="checkbox"/> USDA: Supplemental Nutrition Assistance Program Employment And Training.				
<input type="checkbox"/> HUD Employment & Training.				
<input type="checkbox"/> Second Change Act of 2007 (ex-offenders).				
<input type="checkbox"/> Veterans Employment & Training.				
<input type="checkbox"/> Unemployment Compensation.				
<input type="checkbox"/> Older Worker Programs (Senior Community Service Program).				
<input type="checkbox"/> Community Service Block Grant.				
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.				
<b>5) Align administrative policies and programs.</b>				
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.				

# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

	Minimal Align	Emerging Align	Functional Align	Optimal Align
D. Develop policies and procedures that incentivize local/regional career pathways systems by awarding discretionary resources when available.				
E. Build in career pathways strategies in your state and local unified/combined plan.				
F. Address any statutory barrier issues with the Governor's office and attempt to move changes forward through legislatures.				
G. Implement new policies and procedures and communicate across agencies.				
<b>6) Measure system change and performance.</b>				
A. Identify, develop, and define short-term and long-term system, program and participant outcomes not just categorical program outcomes.				
B. Designate in a MOU the data that agencies will collect, store, track, share, and report on.				
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.				
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.				
E. Communicate and disseminate outcomes as a system rather than an agency or program.				

### 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>
2. Action Planning Tool template <https://learnwork.workforce3one.org/view/2001126551586034594/info>

# SECTION TWO

## CAREER PATHWAYS TOOLS AND RESOURCES

<b>NEXT STEPS ACTION PLANNING TOOL</b> <b>KEY ELEMENT:</b>					
<b>Priority Objectives</b> <i>What we will do?</i>	<b>Tactics/Activities</b> <i>How we will do it?</i>	<b>Lead</b> <i>Who is responsible?</i>	<b>Expected Outcomes</b> <i>What is the result?</i>	<b>Due Date</b> <i>When will we do it?</i>	<b>Progress &amp; Adjustments</b> <i>What have we accomplished?</i>

## 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:
  - **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.
  - **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.
  - **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>
2. Service Mapping Tool template <https://learnwork.workforce3one.org/view/2001126552554540652/info>

# ELEMENT TWO

## IDENTIFY INDUSTRY SECTORS AND ENGAGE EMPLOYERS

### SERVICE MATRIX TEMPLATE PAGE 2

Agency Name \_\_\_\_\_

Agency/ Funding Source	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.	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.	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.	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.
	Universal Target	Universal Target	Universal Target	Universal Target
	Tar:	Tar:	Tar:	Tar:
	Tar:	Tar:	Tar:	Tar:
	Self Staff Both	Self Staff Both	Self Staff Both	Self Staff Both
	Ind Group Both	Ind Group Both	Ind Group Both	Ind Group Both
	Stand Alone	Stand Alone	Stand Alone	Stand Alone
	Lang:	Lang:	Lang:	Lang:
	Days/Hrs:	Days/Hrs:	Days/Hrs:	Days/Hrs:
	Walk in Appt Both	Walk in Appt Both	Walk in Appt Both	Walk in Appt Both
	Fee Free	Fee Free	Fee Free	Fee Free
	Ser Area:	Ser Area:	Ser Area:	Ser Area:
	Universal Target	Universal Target	Universal Target	Universal Target
	Tar:	Tar:	Tar:	Tar:
	Tar:	Tar:	Tar:	Tar:
	Self Staff Both	Self Staff Both	Self Staff Both	Self Staff Both
	Ind Group Both	Ind Group Both	Ind Group Both	Ind Group Both
	Stand Alone	Stand Alone	Stand Alone	Stand Alone
	Lang:	Lang:	Lang:	Lang:
	Days/Hrs:	Days/Hrs:	Days/Hrs:	Days/Hrs:
	Walk in Appt Both	Walk in Appt Both	Walk in Appt Both	Walk in Appt Both
	Fee Free	Fee Free	Fee Free	Fee Free
	Ser Area:	Ser Area:	Ser Area:	Ser Area:

### **A Federal Funding Toolkit for State and Local/Regional Career Pathways Partnerships, Funding Options Worksheet**

**Purpose:** CLASP's career pathways funding Toolkit is designed 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>

## 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/2001126942046585407/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](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

<http://www.jff.org/publications/resourceguide-engaging-employers>

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

U.S. Department of Education, Carl D. Perkins Career and Technical Education Act of 2006

<http://cte.ed.gov/initiatives/programs-of-study>

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

Social Policy Research Associates, September 2010

Commissioned by U.S. Department of Labor

<http://www.careerladdersproject.org/docs/Issue%20Brief.pdf>

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

<http://www.jff.org/publications/creating-career-pathways-frontline-health-care-workers>

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**

Mathematica Policy Research, June 2011. Commissioned by U.S. Department of Labor

[http://www.mathematica-mpr.com/~media/publications/PDFs/labor/case\\_management\\_brief.pdf](http://www.mathematica-mpr.com/~media/publications/PDFs/labor/case_management_brief.pdf)

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**

Mathematica Policy Research, June 2010. Commissioned by U.S. Department of Labor

[http://www.mathematica-mpr.com/~media/publications/PDFs/labor/WIRED\\_brief1.pdf](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

<http://www.jff.org/publications/first-year-accelerating-opportunity-implementation-findings-states-and-colleges>

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

<http://www.nationalresourcenetwork.org/en/Document/305891>

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

<http://www.clasp.org/issues/postsecondary/pages/funding-career-pathways-and-career-pathway-bridges-a-Federal-funding-Toolkit-for-states>

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

<http://www.acf.hhs.gov/programs/opre/resource/innovative-strategies-for-increasing-self-sufficiency-study>

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**

Social Policy Research Associates, September 2010. Commissioned by the U.S. Department of Labor

[http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired\\_brief2.pdf](http://www.mathematica-mpr.com/-/media/publications/pdfs/labor/wired_brief2.pdf)

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.

### **Pathways to Prosperity Network: A State Progress Report, 2012-2014**

Jobs for the Future, August 2014

<http://www.jff.org/sites/default/files/publications/materials/Pathways-to-Prosperity-for-Americas-youth-080514.pdf>

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**

U.S. Department of Education, 2012

<https://lincs.ed.gov/professional-development/resource-collections/profile-187>

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

<http://www.jff.org/publications/policy-meets-pathways-state-policy-agenda-transformational-change>

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

<http://www.jff.org/publications/promise-career-pathways-systems-change>

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

<http://www.clasp.org/resources-and-publications/publication-1/Relationship-between-WIOA-Performance-Measures-and-AQCP-Career-Pathway-Metrics-1.pdf>

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

[http://www.clasp.org/resources-and-publications/publication-1/WIOA\\_sharedaccountability.pdf](http://www.clasp.org/resources-and-publications/publication-1/WIOA_sharedaccountability.pdf)

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.

### **Shared Vision, Strong Systems: The Alliance for Quality Career Pathways Framework Version 1.0**

Center for Law and Social Policy, June 2014

<http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf>

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

<http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/state-sector-strategies-coming-o.html>

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

[https://www.nationalskillscoalition.org/resources/publications/file/sweap\\_using\\_dashboards\\_for\\_state\\_workforce\\_planning.pdf](https://www.nationalskillscoalition.org/resources/publications/file/sweap_using_dashboards_for_state_workforce_planning.pdf)

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

[http://www.nationalskillscoalition.org/resources/publications/file/SWEAP\\_Pathway\\_Evaluator\\_Report.pdf](http://www.nationalskillscoalition.org/resources/publications/file/SWEAP_Pathway_Evaluator_Report.pdf)

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

U.S. Department of Education, Office of Career, Technical and Adult Education (USED/OCTAE), October, 2012

<http://cte.ed.gov/initiatives/advancing-cte-in-state-and-local-career-pathways-system>

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

<http://www.jff.org/publications/forging-new-pathways-impact-breaking-through-initiative-michigan>

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

U.S. Department of Housing and Urban Development and U.S. Department of Labor, Spring 2014

[http://portal.hud.gov/hudportal/documents/huddoc?id=14\\_dol\\_publication.pdf](http://portal.hud.gov/hudportal/documents/huddoc?id=14_dol_publication.pdf)

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

[http://wdr.doleta.gov/directives/attach/TEN/ten\\_36\\_11\\_att.pdf](http://wdr.doleta.gov/directives/attach/TEN/ten_36_11_att.pdf)

A joint letter from three Federal agencies committing to an on going 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

[https://www.whitehouse.gov/sites/default/files/docs/pathways\\_for\\_youth\\_employment\\_Federal\\_resources\\_for\\_employers\\_feb\\_2015.pdf](https://www.whitehouse.gov/sites/default/files/docs/pathways_for_youth_employment_Federal_resources_for_employers_feb_2015.pdf)

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/workforcedatagrants09.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

[http://www.ksde.org/Portals/0/CSAS/CSAS%20Home/CTE%20Home/Career\\_Cluster\\_Pathway/2014-2015%20Cluster%20Handbook.pdf](http://www.ksde.org/Portals/0/CSAS/CSAS%20Home/CTE%20Home/Career_Cluster_Pathway/2014-2015%20Cluster%20Handbook.pdf)

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](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

### **Best Practices for Career Pathways and Credentials: the Minnesota and Kansas Models**

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](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**

U.S. Department of Labor and Social Policy Research Associates Webinar held March 2011

<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

<http://www.clasp.org/resources-and-publications/webinar-dollars-and-sense-using-Federal-resources-to-fund-career-pathways-and-bridges>

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](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.



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### 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>

**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> 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.

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**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.

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**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 examination 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.



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**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.

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**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.

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**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.

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**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.

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**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:

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- 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.

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