

CAREER PATHWAYS TOOLKIT:

An Enhanced Guide and Workbook
for System Development

CAREER PATHWAYS RESOURCES



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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 Catalog of Toolkits

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
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 support the local community and those in need. The 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. Curricula are 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/resource-guide-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/

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.

Programs of Study Design Framework

U.S. Department of Education, Office of Career, Technical, and Adult Education, Division of Academic and Technical Education

<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 and Pathways 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 issue brief 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. This report 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

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

Social Policy Research Associates, June 2010

Commissioned by U.S. Department of Labor

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-sized businesses to provide job retention services, work supports, and training opportunities for entry-level employees, many of whom are receiving public assistance. ERN also includes 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 issue brief 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 ERN 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 (CTE) courses to improve their educational and employment outcomes. A rigorous and comprehensive evaluation of Accelerating Opportunity includes a nonexperimental 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, 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: A Federal Funding Toolkit for State and Local/Regional

Career Pathway Partnerships

Center for Law and Social Policy, February 2016

<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 WIOA legislative and administrative changes to key Federal programs. Of all the elements of career pathways, supportive 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 supportive 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/sites/default/files/opre/tif_pdf_isis_evaluation_summary_3_24_14_master.pdf

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 to Serve 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

In this issue brief, 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 supportive 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.

The 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 had been accomplished to August 2014. 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>

This 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 adult basic education 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 adult basic education State transition systems. The Toolkit offers users downloadable resources and writable tools, and it 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>

This report 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

Jobs for the Future, July 2012

Commissioned by U.S. Department of Labor

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

This paper 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 (AQCP). 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 Services program, and Title IV Rehabilitation Services program). While there are variations in the Title I Youth program and Title III Employment Services program, 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

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 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 Workforce Policymakers

National Governors 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.shifting-gears.org/images/PDF/ProjectResources2/sgstatewidedataleverforsystemschange0910.pdf>

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 and 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 had 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

<https://strategies.workforcegps.org/resources/2014/08/11/16/34/strengthening-state-systems-for-adult-learners-an-evaluation-of-the-first-five-years-of-shifting-gea>

This report discusses 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: (a) 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? (b) 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

<http://www.nationalskillscoalition.org/resources/publications/report-using-dashboards-for-state-workforce-planning>

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.

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_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 pathways 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

U.S. Department of Education, Office of Career, Technical, and Adult Education, October 2012

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

The Office of Career, Technical, and Adult Education launched a three-year project in October 2012 to advance 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 USDOL’s 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 plans 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 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

This partnership encourages Public Housing Authorities (PHAs) to work collaboratively with Workforce Investment Boards 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 Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, Justice, Labor, Transportation and the Social Security Administration, April 2016.

https://careerpathways.workforcegps.org/announcements/2016/04/27/11/21/2016_Career_Pathways_Joint_Letter

A joint letter from 12 Federal agencies promoting the use of career pathways.

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

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

Office of Apprenticeship

U.S. Department of Labor

<http://www.doleta.gov/OA/>

The USDOL'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

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, nonprofits, 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

U.S. Department of Education, 2009

<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 (WDQI) Grant Information

U.S. Department of Labor, 2010

<http://www.dol.gov/performance/workforcedatagrant09.cfm>

In 2010, the USDOL launched round one of WDQI to fund the development of State workforce longitudinal databases—a joint undertaking with the U.S. Department of Education that will build on the Statewide Longitudinal Data Systems initiative that the U.S. Department of Education 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 Handbooks**

Kansas State Department of Education, 2014

<http://www.ksde.org/Agency/Division-of-Learning-Services/Career-Standards-and-Assessment-Services/CSAS-Home/Career-Technical-Education-CTE/Career-Clusters-Pathways>

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/options/roadmaps.html>

Road maps 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 road maps 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 road maps 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 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 in Colorado.

Ohio Stackable Certificates: Models for Success

Community Research Partners, February 2008

http://www.workingpoorfamilies.org/pdfs/Ohio_Stackable.pdf

Based on the research findings, Community Research Partners 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 USDOL/ETA and the Oregon Community College Strategic Reserve Fund.

The Oregon Student Persistence and Completion Initiatives

<https://ccwd.hecc.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 Councils 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/>

A net impact evaluation measures the outcomes of program participants compared against a control group of similar nonparticipants. 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_Prac...

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.

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 are using career pathways to help low-skilled adults and youth attain postsecondary credentials and achieve economic mobility.

Train-the-Trainer at West-Mec, Phoenix, Arizona

National Center for Career Certification Centers, March 2015

https://www.youtube.com/watch?v=e_svey34dbg

A video created during a train-the-trainer session for college-level instructors that demonstrates the power and importance of creating stackable credentials for students within a curriculum that is employer-vetted and approved by industry. The video was produced by the National Center for College and Career Transitions.

Your Career, Your Future

Wisconsin Technical Colleges, 2013

<https://www.youtube.com/watch?v=xNh26wXJySQ>

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

Career Pathways Glossary

Ability to Benefit (ATB): Students who lack a high school diploma or High School Equivalency certification can qualify for Pell Grants by demonstrating their capacity to succeed in a higher education program either through passing a government-approved test or through satisfactory completion of six credit hours toward a certificate of degree. For more information, 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 U.S. 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, noncredit instruction in reading, writing, mathematics, and English language skills to help adult learners obtain a High School Equivalency 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 USDOL’s role is to safeguard the welfare of apprentices, ensure equality of access to apprenticeship programs, and provide integrated employment and training information to sponsors and the local employment and training community.

Apprenticeship Certificate: The Registered Apprenticeship system offers two types of credentials: certificate of completion of an apprenticeship program and interim credentials.

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

Assessment: The use of standardized instruments, interviews, or other means to determine factors that may contribute to the success of students in career and technology programs. These factors may include interest, aptitude, academic achievement, work experience, learning style, work values, and other traits. Assessment may also be administered to determine progress attained by students during training or areas of need to address through remediation.

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

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

AS (Associate of Science) Degree: 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. 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 that 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 curricula 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 and 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. CTE 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. CTE programs provide a wide range of learning experiences spanning many different career fields and industry sectors. CTE may be offered in middle schools, high schools, vocational-technical schools, or through community colleges and other postsecondary institutions and certification programs.

Career Clusters: A group of occupations and broad industries based on common knowledge and skills.

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

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

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

- Aligns with the skill needs of industries in the economy of the State or regional economy involved;
- Prepares an individual to be successful in any of a full range of secondary or postsecondary education options, including Registered Apprenticeships;
- Includes counseling to support an individual in achieving the individual's education and career goals;
- Includes, as appropriate, education offered concurrently with and in the same context as workforce preparation activities and training for a specific occupation or occupational cluster;
- Organizes education, training, and other services to meet the particular needs of an individual in a manner that accelerates the educational and career advancement of the individual to the extent practicable;
- Enables an individual to attain a secondary school diploma or its recognized equivalent and at least one recognized postsecondary credential; and
- Helps an individual enter or advance within a specific occupation or occupational cluster.

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

<http://www2.ed.gov/policy/sectech/leg/perkins/index.html>

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

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

Certification/Personnel Certification: A certification indicates that the individual has acquired the necessary knowledge, skills, and sometimes personal attributes (based on a formal study) to perform a specific occupation or skill. The certification process is based on a formal study that has validated the necessary knowledge, skills, and sometimes personal attributes that have been assessed (through examinations that have been determined to be fair, valid, and reliable) and affirmed (recertification) 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 a modularized curriculum. A curriculum that is divided into more manageable “chunks” or modules with the purpose of improving degree completion rates among nontraditional 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 catalogs an array of technical

assistance on prior learning assessment resources to support the granting of credit for prior learning or work experience.

Credit Hours: Credit hours are the building block components of educational credentials (diploma, certificate, and degree).

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

Curriculum Mapping: Aligning or “mapping” a 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: (a) to provide students with opportunities for additional academic challenges and rigor, and (b) 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 nontraditional learners to pace themselves according to their time availability and skill level. Fast-Track programs are designed to teach basic skills like literacy and math in the context of a student’s career interest, making learning more relevant. Fast-Track programs are paced to meet the time commitments of nontraditional learners and may be offered on different schedules than conventional courses, thereby addressing their barriers to attending traditional course schedules. The goal of any Fast-Track program is for the learner to obtain some type of industry-recognized credential.

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

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

High School Diploma or Recognized Equivalent: A document certifying the successful completion of a prescribed secondary school program of studies, or the attainment of satisfactory scores on State-specified examinations.

High-Skill Occupations: Occupations requiring postsecondary training or higher. Also occupations requiring long-term on-the-job training or related work experience.

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

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

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

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

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 is 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. Consumers should be aware that in some industry sectors there may be more than one major industry association and that they may endorse or promote different credentials, and that the credentials that are sought by individual companies in an industry can vary by geographic region, by company size, or based on what product or equipment the company uses and needs workers to be able to operate. This is merely to point out that there may not be a single readily identifiable national credential for all industry sectors or occupations.

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

Integrated Resource Team (IRT) Model: Brings together relevant public and private service agencies on behalf of the customer to coordinate services and resources in a comprehensive manner.

Internships: A temporary employment opportunity in which an individual can acquire experience in an occupation, profession, or pursuit. These positions may be paid or unpaid and are usually temporary; employment at the completion of an internship is not guaranteed.

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

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

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

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

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

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

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

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

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

Portable Credential: A credential is considered portable when it is recognized and accepted as verifying the qualifications of an individual in other settings—either in other geographic areas, at other educational institutions, or by other industries or employing companies.

Program of Study: Incorporates secondary and postsecondary elements; includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical contents in a coordinated, non-duplicative progression of courses that align secondary to postsecondary education; may include opportunity for secondary education students to gain postsecondary education credits through dual or concurrent enrollment programs or other means; and leads to an industry-recognized credential or certificate at the postsecondary level or an associate or baccalaureate degree. See

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

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

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

Return on Investment (ROI): As it relates to career pathways, ROI is a measure of the net economic impact of an employment and training program. The ROI considers all the costs associated with design and implementation of the career pathways 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. 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): A program 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.

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 degree, and then typically obtain two more years of appropriate postsecondary education to obtain

a bachelor's degree. An individual can also stack an interim career/work readiness or pre-apprenticeship certificate, then complete an apprenticeship, and later earn a degree or advanced certification.

Stakeholders: Individuals, groups, or organizations that have a stake in the outcomes of preK-16 education. This includes, for example, students, parents, employers, economic and workforce entities, and society in general.

Temporary Assistance for Needy Families (TANF): The 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. TANF provides temporary financial assistance while aiming to help participants gain employment and exit the program.

Ticket to Work Program: 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 nonprofit sectors.

U.S. Department of Labor (USDOL), Employment and Training Administration (ETA): The mission of the ETA 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 WIOA. 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 jobseekers access employment, education, training, and supportive services to succeed in the labor market and to match employers with the skilled workers they need to compete in the global economy. WIOA was signed into law on July 22, 2014. WIOA brings together, in strategic coordination, the core programs of Federal investment in skill development:

- Employment and training services for adults, dislocated workers, and youth, and Wagner-Peyser employment services administered by the USDOL 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 U.S. Department of Education.

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 the USDOL. In addition, WIOA authorizes other programs administered by the U.S. Department of Education and the U.S. Department of Health and Human Services. WIOA replaces the Workforce Investment Act of 1998 and retains and amends the Adult Education and Family Literacy Act, the Wagner-Peyser Act, and the Rehabilitation Act of 1973.

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

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

Bibliography

Alliance for Quality Career Pathways, Center for Law and Social Policy. (2014). *Shared vision, strong systems: The alliance for quality career pathways framework version 1.0*. Retrieved from <http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf>

Anderson, T., Eyster, L., Lerman, R. I., Clymer, C., Conway, M., & Montes, M. (2014). *The first year of accelerating opportunity: Implementation findings from the states and colleges*. Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/first-year-accelerating-opportunity-implementation-findings-states-and-colleges>

Apprenticeship Carolina. (n.d.). *Home*. Retrieved from <http://www.apprenticeshipcarolina.com/>

Association for Career and Technical Education. (n.d.). *CTE clearinghouse: Business partnerships and community involvement*. Retrieved from http://www.acteonline.org/clearinghouse_partnerships/#.VcOW3vIViko

California Department of Education. (2016). *California career pathways trust (CCPT)*. Retrieved from <http://www.cde.ca.gov/ci/ct/pt/>

CareerOneStop. (n.d.). *Competency model clearinghouse*. Retrieved from <http://www.careeronestop.org/CompetencyModel/>

Center for Law and Social Policy. (2013). *A framework for measuring career pathways innovation*. Retrieved from <http://www.clasp.org/resources-and-publications/files/CLASP-AQCP-Metrics-Feb-2013.pdf>

Center for Law and Social Policy. (2010). *Dollars and sense - Using federal resources to fund career pathways and bridges* [webinar]. Retrieved from <http://www.clasp.org/resources-and-publications/webinar-dollars-and-sense-using-Federal-resources-to-fund-career-pathways-and-bridges>

Center for Law and Social Policy. (2016). *Funding career pathways: A federal funding toolkit for states*. Retrieved from <http://www.clasp.org/issues/postsecondary/pages/funding-career-pathways-and-career-pathway-bridges-a-Federal-funding-Toolkit-for-states>

Clagett, M. G., & Uhalde, R. (2012). *The promise of career pathways systems change*. Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/promise-career-pathways-systems-change>

Collaborative Economics, & the Woolsey Group. (2014). *Creating career pathways in Colorado: A step-by-step guide*. Retrieved from <http://www.dol.gov/NationalDialogue/ColoradoCareerPathwaysGuide.pdf>

Community Research Partners. (2008). *Ohio stackable certificates: Models for success*. Retrieved from http://www.workingpoorfamilies.org/pdfs/Ohio_Stackable.pdf

Couturier, L. K. (2014). *Policy meets pathways: A state policy agenda for transformational change*. Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/policy-meets-pathways-state-policy-agenda-transformational-change>

Derr, M., & Holcomb, P. (2010). *Issue brief: Employer resource networks - Uniting businesses and public partners to improve job retention and advancement for low-wage workers.*

Retrieved from Mathematica Policy Research Website:

http://www.mathematica-mpr.com/~media/publications/pdfs/labor/wired_brief1.pdf

District 1199C Training & Upgrading Fund. (n.d.). *About us.* Retrieved from
<http://www.1199ctraining.org/about>

Estrada, R. (2009). *How to build bridge programs that fit into a career pathway: A step-by-step guide based on Carreras en Salud Program in Chicago.* Retrieved from http://www.idpl.org/images/publicationsPDFs/Instituto2010_HowToBuildBridgePrograms%20final.pdf

Gash, A., & Mack, M. (2010). *Issue brief: Career ladders for the hard-to-employ.* Retrieved from Career Ladders Project Website: <http://www.careerladdersproject.org/docs/Issue%20Brief.pdf>

Harmon, T. (2014). *Shared accountability in WIOA and career pathways.* Retrieved from Center for Law and Social Policy Website: http://www.clasp.org/resources-and-publications/publication-1/WIOA_sharedaccountability.pdf

Jobs for the Future. (2014). *Advancing career and technical education (CTE) in state and local career pathways systems.* Retrieved from
<http://cte.ed.gov/initiatives/advancing-cte-in-state-and-local-career-pathways-system>

Jobs for the Future. (2014). *Braided funding toolkit.* Retrieved from
http://application.jff.org/braided_funding_toolkit/

Jobs for the Future. (n.d.). *DesignForScale: State innovation series.* Retrieved from
<http://www.jff.org/publications/designforscale-state-innovation-series>

Jolin, M., Schmitz, P., & Seldon, W. (n.d.). *Community collaboratives whitepaper: A promising approach to addressing America's biggest challenges.* Retrieved from Corporation for National and Community Service Website:
<http://www.serve.gov/sites/default/files/ctools/CommunityCollaborativesWhitepaper.pdf>

Joyce Foundation. (2013). *Shifting gears: Building new pathways for low-skilled workers to succeed in the 21st century economy, evaluation synopsis.* Retrieved from <https://strategies.workforcegps.org/resources/2014/08/11/16/33/shifting-gears-building-new-pathways-for-low-skilled-workers-to-succeed-in-the-21st-century-economy>

Klein-Collins, R. (2006). *Building blocks for building skills: An inventory of adult learning models and innovations.* Retrieved from Council for Adult & Experiential Learning Website:
<http://eric.ed.gov/?id=ED509915>

Laird, E., & Holcomb, P. (2011). *Issue brief: Effective case management - Key elements and practices from the field.* Retrieved from Mathematica Policy Research Website: http://www.mathematica-mpr.com/~media/publications/PDFs/labor/case_management_brief.pdf

Larsen, C., & Henriksen, D. (2010). *Leveraging funding opportunities to serve disadvantaged populations: Strategies and sources.* Retrieved from Mathematica Policy Research Website:
http://www.mathematica-mpr.com/~media/publications/pdfs/labor/wired_brief2.pdf

Literacy Information and Communication System, Tools for Building Employer-Educator Partnerships. (n.d.). *Home*. Retrieved from <http://lincs.ed.gov/employers/>

Los Angeles Unified School District. (n.d.). *What is linked learning?* Retrieved from <http://achieve.lausd.net/Page/524>

Minnesota Governor's Workforce Development Board. (2015). *Smart investments - real results: A net impact evaluation of Minnesota's workforce development system and initial findings.* Retrieved from <http://www.gwdc.org/>

National Collaborative on Workforce and Disability for Youth. (n.d.). *Guideposts for success.* Retrieved from <http://www.ncwd-youth.info/guideposts>

The Pathways to Prosperity Network. (2014). *The Pathways to Prosperity Network: A state progress report, 2012–2014.* Retrieved from Jobs for the Future Website: <http://www.jff.org/sites/default/files/publications/materials/Pathways-to-Prosperity-for-Americas-youth-080514.pdf>

Portland Community College. *Career pathways roadmap portfolio.* Retrieved from <http://www.pcc.edu/career/pathways/options/roadmaps.html>

Prince, D., & Jenkins, D. (2005). *Building pathways to success for low-skill adult students: Lessons for community college policy and practice from a statewide longitudinal tracking study.* Retrieved from Community College Research Center, Teacher's College, Columbia University Website: <http://ccrc.tc.columbia.edu/publications/low-skill-adults-policy.html>

Roberts, B., & Price, D. (2010). Statewide data as a lever for systems change: Experiences and lessons from shifting gears. Retrieved from The Joyce Foundation Website: <http://www.shifting-gears.org/images/PDF/ProjectResources2/sgstatewidedataleverforsystemschange0910.pdf>

Roberts, B., & Price, D. (2012). *Strengthening state systems for adult learners: An evaluation of the first five years of shifting gears.* Retrieved from The Joyce Foundation Website: <https://lincs.ed.gov/professional-development/resource-collections/profile-723>

Rosenblum, I., & Spence, C. (2015). *Success in real time: Using real-time labor market information to build better middle-skill STEM pathways.* Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/success-real-time-using-real-time-labor-market-information-build-better-middle-skill-0>

Schanker, J. B., & Taylor, J. C. (2012). *Forging new pathways: The impact of the Breaking Through Initiative in Michigan.* Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/forging-new-pathways-impact-breaking-through-initiative-Michigan>

Social Policy Research Associates. (2011). *Career pathways toolkit.* Retrieved from <https://lincs.ed.gov/professional-development/resource-collections/profile-556>

U.S. Census Bureau. (n.d.). *North American Industry Classification System.* Retrieved from <http://www.census.gov/eos/www/naics/>

U.S. Department of Education, Office of Career, Technical, and Adult Education, Division of Academic and Technical Education. (n.d.). *Programs of study design framework*. Retrieved from <http://cte.ed.gov/initiatives/programs-of-study>

U.S. Department of Education. (n.d.). *What are Employability Skills?* Retrieved from <http://cte.ed.gov/employabilityskills/index.php/framework/>

U.S. Department of Education, Center for Faith-based and Neighborhood Partnerships. (n.d.). *Faith-based and neighborhood partnerships*. Retrieved from <http://www.ed.gov/edblogs/fbnp/>

U.S. Department of Education, U.S. Department of Health and Human Services, & U.S. Department of Labor. (2012, April 4). *Joint career pathways letter*. Retrieved from http://wdr.doleta.gov/directives/attach/TEN/ten_36_11_att.pdf

U.S. Department of Housing and Urban Development, & U.S. Department of Labor. (2014). *From the ground up: Creating sustainable partnerships between public housing authorities and workforce investment boards*. Retrieved from http://portal.hud.gov/hudportal/documents/huddoc?id=14_dol_publication.pdf

U.S. Department of Human Services, Administration for Children and Families. (2014). *Innovative strategies for increasing self-sufficiency study*. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/tif_pdf_isis_evaluation_summary_3_24_14_master.pdf

U.S. Department of Labor, Employment Training Administration. (2010, December 15). *Increasing credential, degree, and certificate attainment by participants of the public workforce system* (Guidance Letter No. 15-10). Retrieved from <http://wdr.doleta.gov/directives/attach/TEGL15-10.pdf>

U.S. Department of Labor, Employment and Training Administration. (n.d.). *Workforce Data Quality Initiative (WDQI) grant information*. Retrieved from <http://www.doleta.gov/performance/workforcedatagrant09.cfm>

U.S. Department of Labor, Employment and Training Administration, Workforce³ One. (2014, January 10). *Best practices for career pathways and credentials: the Minnesota and Kansas models* [PowerPoint slides]. Retrieved from https://careerpathways.workforcegps.org/announcements/2015/02/18/12/22/Best_Practices_for_Career_Pathways_and_Credentials

Virginia Office of the Governor. (2014, August 13). *Governor McAuliffe unveils major workforce development initiative*. Retrieved from <https://governor.virginia.gov/newsroom/newsarticle?articleId=5787>

Washington State Board for Community & Technical Colleges. *I-Best: Integrated basic education and skills training*. Retrieved from <http://www.sbctc.edu/colleges-staff/programs-services/i-best/>

The White House. (2015). *Pathways for youth employment: Federal resources for employers*. Retrieved from https://www.whitehouse.gov/sites/default/files/docs/pathways_for_youth_employment_federal_resources_for_employers_feb_2015.pdf

Wilson, R. (2015). *A resource guide to engaging employers*. Retrieved from Jobs for the Future Website: <http://www.jff.org/sites/default/files/publications/materials/A-Resource-Guide-to-Employer-Engagement-011315.pdf>

Woolsey, L., & Groves G. (2013). *State sector strategies coming of age: Implications for state workforce policymakers*. Retrieved from National Governors Association Website: <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>

Workforce Innovation and Opportunity Act of 2014, Pub. L. No. 113-128. Retrieved from <https://www.congress.gov/113/bills/hr803/BILLS-113hr803enr.pdf>

Workforce Strategy Center. (2008). *Bridging business and education for the 21st century workforce: A strategic plan for Virginia's career pathways system*. Retrieved from Elevate Virginia Website: <http://www.elevatevirginia.org/wp-content/uploads/2014/04/CareerPathwaysVA2-8-12-14-2.pdf>

Zacker, H. B. (2011). *Creating career pathways for frontline health care workers*. Retrieved from Jobs for the Future Website: <http://www.jff.org/publications/creating-career-pathways-frontline-health-care-workers>