CAREER PATHWAYS TOOLKIT:

An Enhanced Guide and Workbook for System Development

ELEMENT TWO:
IDENTIFY INDUSTRY SECTORS AND ENGAGE EMPLOYERS

MSG
MANHATTAN STRATEGY GROUP

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CONTENTS

ELEMENT TWO: Identify Industry Sectors and Engage Employers

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

Key Element Components:

- Conduct labor market analysis to target high demand and growing industries.
- Survey and engage key industry leaders from targeted industries and sector partnerships.
- Clarify the role of employers in the development and operation of programs.
- Identify existing training systems within industry as well as the natural progression and/or mobility (career ladders/lattices).
- Identify the skill competencies and associated training needs.
- Sustain and expand business partnerships.

Introduction to Element Two

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 that a career pathways system aligns with business needs. Many states are using sector strategies to complement and strengthen their relationships with employers. A sector strategy 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 pathways programs for a range of workers within a regional economy. Alignment with regional economies allows the career pathways system to identify careers that are emerging, growing, and/or have the greatest need for replacement workers and promise long-term employment at a family-sustaining wage. WIOA strengthens the requirements for State and local providers to align workforce services with regional economic development and sector strategies tailored to their needs.

This module includes a tool from ETA's sector strategies resources: Sector Strategies Organizational Self-Assessment (Worksheet 2.0a).

CAREER PATHWAYS FYI: Contributions 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.

The White House. (2014). *Ready to work: Job-driven training and American opportunity.* Retrieved from
https://www.whitehouse.gov/sites/default/files/docs/skills_report.pdf

2.0a SECTOR STRATEGIES ORGANIZATIONAL SELF-ASSESSMENT

USDOL/ETA is committed to providing technical assistance to States and regions actively engaged in sector strategies to expand, sustain, and scale up the effectiveness and impact of their initiatives. ETA has developed a framework to support the implementation and sustainability of sector strategy initiatives. Although many states are implementing sector strategies, they are not easy to establish and sustain. For sector strategies to succeed, State systems must agree that regional, skills-based economic competitiveness is the right approach, and then must align policies and funding streams across education, workforce, and economic development systems, and at all levels of government. Just as regional sector initiatives require an intermediary to convene stakeholders and activities, State sector strategies require leadership to help coordinate policies toward common goals. Governors are in a pivotal position to provide the leadership needed to bring systems together. The purpose of the Sector Strategies Organizational Self-Assessment Tool is to help States evaluate their own sector strategies initiatives by identifying their strengths, learning opportunities and priorities.

This tool is housed on the U.S. Department of Labor's Workforce GPS Web site. Sector Strategies tools are offered in the Business Engagement Collaborative section, and can be downloaded here: https://businessengagement.workforcegps.org/~/media/WorkforceGPS/rapidresponse/Files/Sector%20Strategies/eta_sectors_self_assessment_state_version_20160120_lo.pdf

Sector Strategies Organizational Self-Assessment

Is your organization demand-driven and sector-focused?

About This Tool

This self-assessment tool is designed to help local and regional workforce organizations (and current sector partnerships) determine how well they are implementing full-scale sector strategies today and where they should prioritize future enhancements.

For more information on full-scale sector strategies see *ETA's Sector Strategies Framework* document.

The 20-question assessment is organized along five broad capability areas:

1 | **Data-Informed Decision Making**
Is your organization/partnership using rigorous data to make decisions about target industries and education and training investments?

2 | **Industry Engagement**
How broad and deep is the involvement of targeted industry sector employers in designing and delivering programs and services?

3 | **Sector-Based Service Delivery**
How well are you and your partners facilitating the delivery of workforce solutions that are responsive to the needs of workers and the targeted industry sector(s)?

4 | **Sustainability & Continuous Improvement**
How well is your organization able to measure sector strategy outcomes? Are you positioned to financially sustain sector work over time?

5 | **Organizational Capacity and Alignment**
Does your organization have the personnel, policies, vision, and resources in place to continually support sector strategy outcomes?
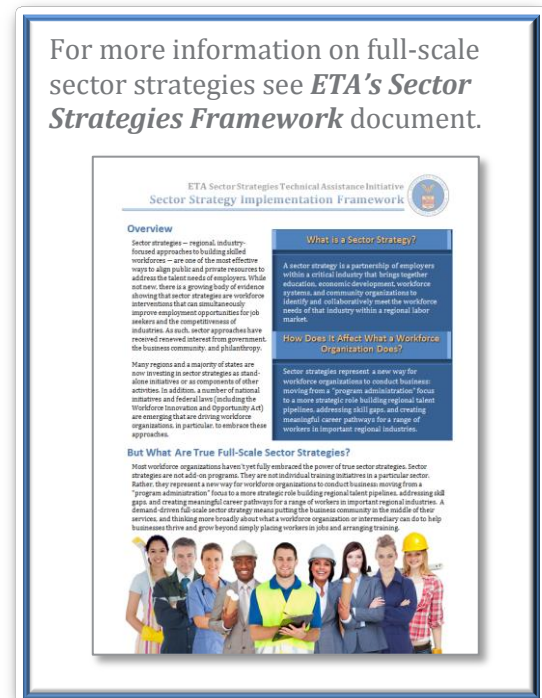
The capability areas, as described in the assessment, should be viewed as aspirational. They represent the capabilities that an organization that is interested in launching or advancing a full-scale sector strategy should seek to attain. It is rare that an organization would excel in all areas.

How to Take the Assessment

It is recommended that multiple individuals from the same organization (or from the same sector partnership) take the assessment and come together to discuss findings. Upon completion of the assessment, consider the following questions:

- What areas represent our strengths? Why?

- What areas represent learning opportunities?

- Is there important sector-related work that we are not doing? If so, what?

- Do we have different points of view within our organization about our self-assessment scoring? What can we learn from the different perspectives?

- What are our priorities for the next year?

Before taking the assessment, please answer the following question:

> *Is your organization currently leading or part of any active sector partnerships? If yes, which industries are you targeting?*

Sector Strategies Organizational Self-Assessment

Data-Informed Decision Making	*Is your organization/partnership using rigorous data to make decisions about target industries and education and training investments?*
Elements of a high-performing sector-focused organization	*If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:*
1 | Understanding of the region's most important industry sector(s) through use of rigorous economic, industry, and labor market data collection and analysis	• You use tools (e.g. location quotient analysis, traditional and real-time LMI), to regularly quantify your region's most competitive and emerging industries. • You have agreement across partners (e.g. economic development entities) about target industry sectors. • You use LMI and target industry data that focuses on your *actual* regional economy (e.g. where labor and goods flow) rather than on only a WIB's service delivery area or a county border). • You have a formal process for an ongoing review of data and for making adjustments to target industry sectors.

For item 1, the rating scale columns are:

1	2	3	4	5
○	○	○	○	○

Action Items:

1 = Not at all	**2** = Making progress but a long way to go	**3** = Have some of this, sometimes	**4** = Yes, in place now	**5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" *(see ratings key below)* you consider it to have the following in place:					
2 | Process in place to identify specific skill needs, level of demand, and area education and training program gaps within target industry sector(s)	• You regularly use both traditional and real-time data sources as well as focus groups and/or interviews with employers to identify growth occupations within target sectors and specific skill and hiring needs. • You have a formal and continuous process involving education partners to work with employers to review labor market demand, and identify/validate workforce needs and specific KSAs of critical occupations. • You have a formal process to identify gaps among existing regional education, training worker support, business services, and the needs of the target industry sector(s) employers. • You have a clear grasp of the employment disparities (e.g. based on race, ethnicity, gender) and individual and systemic barriers to economic security faced by job seekers/workers in your region	**1** **2** **3** **4** **5** ◯ ◯ ◯ ◯ ◯ *Action Items:*				
3 | Provision of data that is understandable and shared across partners to enable joint, collaborative decision-making	• You have up-to-date materials (i.e. reports, industry briefs) that clearly and compellingly identify regional target industry sectors and their workforce needs. • You have the reputation, regionally, as a "go-to" source for target industry data and workforce needs.	**1** **2** **3** **4** **5** ◯ ◯ ◯ ◯ ◯ *Action Items:*				

1 = Not at all │ **2** = Making progress but a long way to go │ **3** = Have some of this, sometimes │ **4** = Yes, in place now │ **5** = Not only in place but we are excelling

| Industry Engagement	How broad and deep is the involvement of targeted industry sector(s) employers in designing and delivering programs and services?					
Elements of a high-performing sector-focused organization	*If you think your organization rates as a "5" you consider it to have the following in place:*					
4 | Regional influence to bring key industry leaders to the table and understand the needs of their businesses	• You have relationships with business organizations within the target industry sector(s). • You've developed criteria (e.g. high job quality, career paths, a great reputation among workers and job seekers) to identify which employers to focus on involving and supporting through use of sector partnership resources. • You have the ability to easily identify and convene a network of large and small employers (and key decision-makers from those employers) within the sector(s), or credible relationships with business organizations that will include you in their meetings and conversations.	**1** ◯	**2** ◯	**3** ◯	**4** ◯	**5** ◯
	Action Items:					
5 | Industry as a strategic partner in designing and executing services and programs	• You have specific vehicles for soliciting ongoing workforce needs from industry partners (not just during periodic meetings or surveys). • You have industry partners that help define program strategy and goals, identify necessary skills, competencies, and resources to support education (e.g., equipment, instructors, internships), and, where appropriate, hire qualified students who complete programs.	**1** ◯	**2** ◯	**3** ◯	**4** ◯	**5** ◯
	Action Items:					

1 = Not at all   │   **2** = Making progress but a long way to go   │   **3** = Have some of this, sometimes   │   **4** = Yes, in place now   │   **5** = Not only in place but we are excelling

6	Capability to take on the sector partnership intermediary role if required	• When necessary, you can play the intermediary role, including guiding the partnership; managing its work; maintaining strong relationships with employers; maintaining an up-to-date understanding of employer needs and opportunities; and guiding efforts to evaluate and make improvements to a sector partnership. • You have credibility with the target industry sector(s) and entrepreneurial attitude to guide sector partnerships where employers want to take it.	1 2 3 4 5 ○○○○○ *Action Items:*

Sector-Based Service Delivery	*How effectively are you and your partners facilitating the development and delivery of workforce opportunities that are responsive to the needs of an entire targeted industry?*

Elements of a high-performing sector-focused organization	*If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:*	
7	Capability to fill the industry's near-term workforce needs	• You've had success in working with education partners through a sector strategy to develop responsive curriculum/courses for target sectors to provide immediate access to customized training and certification programs as needed. • You've had success in providing systematic support to employer needs—across an entire industry—in business outreach, hiring services, retention programs, etc. • Your organization (e.g. WIB, AJC) has the agility and flexibility to develop new programs rapidly in response to target industry workforce needs.	1 2 3 4 5 ○○○○○ *Action Items:*

1 = Not at all	**2** = Making progress but a long way to go	**3** = Have some of this, sometimes	**4** = Yes, in place now	**5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" *(see ratings key below)* you consider it to have the following in place:					
8 | Capability to meet the industry's longer-term pipeline needs across a range of skill levels	• You have an up-to-date inventory of regional education and training programs relevant to the targeted industry sector(s) in order to determine assets and gaps. • You can facilitate area educational units (e.g. K-12, adult education, community colleges, career & technology institutions, universities) to work together in response to targeted industry sector(s) to address identified regional long-term workforce needs at all educational levels. • You have experience and the ability to influence target sector(s) employers to develop, incorporate, and/or expand industry-recognized credentials.	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○
		Action Items:				
9 | Ability to overcome barriers for lower-wage workers in order to facilitate employment and career advancement within the targeted sector(s)	• You've identified barriers to work that are individual and systemic in nature (e.g. lack of work experience, substance abuse, transportation, child care), created solutions, and brought about industry-wide changes that support them as standard practices. • You've worked across an industry on career advancement solutions (e.g. tuition assistance, enhanced credentialing structure, on-the-job coaching) to encourage worker mobility.	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○
		Action Items:				

1 = Not at all	**2** = Making progress but a long way to go	**3** = Have some of this, sometimes	**4** = Yes, in place now	**5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:					
10 | Experience with and capability to develop effective, employer-validated career pathways in support of the target sector(s)	• With partners, you have experience with mapping and designing modularized curricula and career pathways across a range of skill needs (entry-level to advanced) to serve target industries. • You've had success in designing education and training pathways that enable students and adults to move seamlessly between academic and career technical programs, to and from work, and to achieve advanced credentials.	**1**	**2**	**3**	**4**	**5**
		○	○	○	○	○
		Action Items:				
11 | Experience with and capability to design and implement, with employers, work-based learning models in targeted sector(s)	• You have experience building and funding—on an industry level—models such as: ✔ On-the-job training ✔ Cooperative education ✔ Paid internships ✔ Pre-apprenticeship or Registered Apprenticeship programs	**1**	**2**	**3**	**4**	**5**
		○	○	○	○	○
		Action Items:				

1 = Not at all │ **2** = Making progress but a long way to go │ **3** = Have some of this, sometimes │ **4** = Yes, in place now │ **5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:					
12 | Partnerships with the right regional organizations to deliver comprehensive solutions in response to target industry sector(s) needs—while minimizing the duplication of services	• You have dynamic alliances (including clearly defined roles) with the following organizations in executing sector strategies: ✓ K-12, community colleges, adult education programs, private training providers, labor unions, and universities: To align curricula to career pathways and provide a bridge from secondary, pre-GED, and post-secondary education to a career. ✓ Local industry associations, chambers of commerce, and economic development agencies: To identify target industry sectors, convene industry, and jointly address regional growth strategies. ✓ Community-based organizations: To reach populations that are currently underrepresented in the target sector(s) and allow CBO services to be effectively integrated into sector-based strategies.	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○
	Action Items:					
13 | Willingness and ability to respond to non-workforce needs directly related to the industry's economic development or growth opportunities	• You are open and have the capacity to engage sector partners to address non-workforce issues with employers (e.g. access to technology and innovations, streamlining suppliers or supply chains, transportation and logistics issues) depending on industry sector(s) needs.	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○
	Action Items:					

1 = Not at all │ **2** = Making progress but a long way to go │ **3** = Have some of this, sometimes │ **4** = Yes, in place now │ **5** = Not only in place but we are excelling

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Sustainability & Continuous Improvement	*Is your organization able to measure sector strategy outcomes and sustain sector work over time?*		
Elements of a high-performing sector-focused organization	*If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:*		
**14	** Ability to "build the buzz" about the value of sector partnerships as a means to continuously secure stakeholder buy-in	• You have marketing material developed to promote existing sector partnerships. • You have close connections with area media to build awareness about partnership goals and community support.	**1 2 3 4 5** ◯ ◯ ◯ ◯ ◯ *Action Items:*
**15	** Sector partnership measures of success identified and tracked with continuous improvement processes built in	• You have a common agreed-upon dashboard of success indicators (i.e. consensus around sector partnership "outcomes"), determined in part by indicators needed to bring about systems changes. • Your measures reflect services to business. • You have a process in place for collecting and analyzing data, and using metrics to make future adjustments. • Your board, executive committee, or program committee routinely reviews sector partnership metrics.	**1 2 3 4 5** ◯ ◯ ◯ ◯ ◯ *Action Items:*

| **1** = Not at all | **2** = Making progress but a long way to go | **3** = Have some of this, sometimes | **4** = Yes, in place now | **5** = Not only in place but we are excelling |

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:					
16 | Sustainable funding source(s) to establish and expand sector partnerships	• You have an understanding of available funding sources (e.g. grants, foundation support, repurposed program funds, discretionary funds, industry support), and a commitment to identify emerging sources that could support sector initiatives. • You develop strategies for sustainability and pursue them from the beginning of sector partnership operations. • You have a willingness to be innovative in finding, braiding, and utilizing resources to support sector partnerships (including public, philanthropic, and private sector resources). • You've had success in obtaining funding from multiple sources that pays for the intermediary roles, services, systems change strategies, and other costs of the sector initiative. • The business community contributes resources to the partnerships.	**1** ◯	**2** ◯	**3** ◯	**4** ◯	**5** ◯
		Action Items:				
Organizational Capacity & Alignment	***Does your organization have the personnel, policies, vision, and resources in place to support sector strategy outcomes?***					
17 | Organizational commitment to bring partners to a shared vision	• You've had success in collectively developing, with your partners (e.g. economic development, higher education), a shared vision around target industry growth and economic security for workers. • You have the capacity to serve in a sector partnership intermediary role when required (i.e. as the neutral and credible party/convener brokering relationships among sector partners).for the intermediary roles, services, systems change strategies, and other costs of the sector initiative. • The business community contributes resources to the partnerships.	**1** ◯	**2** ◯	**3** ◯	**4** ◯	**5** ◯
		Action Items:				

1 = Not at all | **2** = Making progress but a long way to go | **3** = Have some of this, sometimes | **4** = Yes, in place now | **5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:					
18 | Organizational culture that promotes a demand-driven approach within a sectors framework	• You have the leadership (executives, board) that understands the importance of and prioritizes a focus on serving employers for the purposes of aligning the workforce system to target sector needs. • Your organization has a strategic plan/vision that emphasizes the organization's role in driving regional economic security and industry growth through sector partnerships.	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○ *Action Items:*
19 | Organizational structure (administrative policy, committee structure) that supports industry engagement within a sectors framework	• You have staff member(s) with explicit roles to examine, across businesses, broader industry workforce trends for the purpose of executing sector strategies. • Your organization's board/oversight group includes private sector representatives that reflects the target industry mix. • You have an administrative structure that promotes and supports sector strategies (e.g. organizational or committee structure oversees sector initiatives). • You have administrative policies that support sector strategies (e.g. sector partnership concepts are explicitly built into organization's policy goals; American Job Center has a policy to prioritize services for target industry employers).	**1** ○	**2** ○	**3** ○	**4** ○	**5** ○ *Action Items:*

1 = Not at all │ **2** = Making progress but a long way to go │ **3** = Have some of this, sometimes │ **4** = Yes, in place now │ **5** = Not only in place but we are excelling

Elements of a high-performing sector-focused organization	If you think your organization rates as a "5" (see ratings key below) you consider it to have the following in place:					
20 | Staff have expertise about current target industries and have opportunities to hone knowledge as targets change	• Your staff has ample opportunities to attend targeted industry-related professional development events for the purposes of staying fresh on technologies, growth trends, and workforce needs. • Your staff understands the industry sector's language, pain points, high-leverage opportunities, and culture, and they respect the industry sector's culture. • All staff members, regardless of position, understand why a sector strategy approach makes sense, and their role within it.	**1** ◯	**2** ◯	**3** ◯	**4** ◯	**5** ◯
		Action Items:				

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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 chosen industries will provide the best return on investment. States may wish to analyze many sources of LMI to identify regional workforce needs. These sources may include traditional LMI from the U.S. Bureau of Labor Statistics (BLS), real-time LMI from Internet job boards, sophisticated employer internal tracking systems, and industry cluster studies.

CAREER PATHWAYS FYI: In-demand Industry Sector or Operation

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 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 includes 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, and (2) national regions (e.g., the "northwest"), states, regions within states, and counties/communities. LMI data may also be reported in time frames such as the previous month, quarter, or year.

In a broad sense, LMI collects, analyzes, and disseminates employment levels, wages,

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 is needed for specific occupations; and
- What factors can be prohibitive in getting a job.

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 shows 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. The Labor Market Analysis (Worksheet 2.1a) and the Data and Resource Guide for Identifying Target Industry Sectors (Worksheet 2.1b) can be accessed here to provide guidance to the State or local leadership team in selecting in-demand industries and occupations. The leadership team may consult with the State's LMI office, a regional labor market economist, or a private firm to assist in interpreting the data and providing the rationale for their selection.
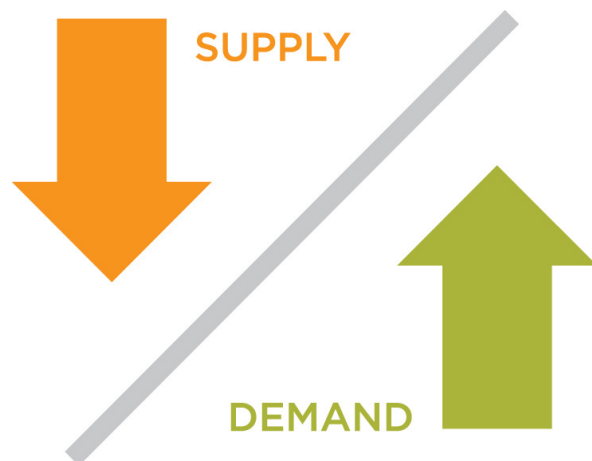
There are many other sources of labor market data to complement the traditional LMI presented by the BLS. Modern technology allows access to real-time data using software that pulls information from job posting boards on the Internet and can provide supplemental data on labor supply and demand. Many larger employers have sophisticated applicant tracking systems or larger talent management systems 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 for 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[1]." 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). NAICS is the standard used by Federal statistical agencies for 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). An LQ of employment identifies the relative concentration of employment in an area compared to a

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1   Porter, M. Location, Competition, and Economic Development: Local Clusters in a Global Economy. Economic Development Quarterly, Feb2000, Vol. 14 Issue 1, p15. Retrieved from: http://home.furb.br/wilhelm/COMPETIV/Porter_Cluster3.doc

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 a 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.

Small Businesses

Start-ups

Medium Firms

Large/Anchor Firms

Support Sectors

Suppliers

MARKETS AND BUYERS

SUPPLY CHAINS

INFRASTRUCTURE

INNOVATION AND TECHNOLOGY

LABOR

Includes transportation, utilities, broadband, etc.

Includes access to university and federal lab research and development.

Includes education and training systems graduating jobseekers with skills for entry-level, mid-level, and advanced-level occupations.

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

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 Industry Cluster graphic from the National Governors Association.

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, in order to avoid duplicating efforts.

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 and developed into career pathways for automotive workers as a result of one business identifying training needs.

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.

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, AMTEC has expanded across numerous economic, education, and political boundaries along the 1-65 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 emerges. 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.

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, and 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. Requests to validate data became a valuable strategy for recruiting employers.

2.1a LABOR MARKET ANALYSIS

It is important to review the vast amount of data available to identify regional economies, industry sectors, and in-demand occupations. The consistent sources of data across the nation are the U.S. Census Bureau, BLS, unemployment compensation records, and your State's Office of Higher Education database. The State LMI office may be the best source for assistance in conducting this analysis. The following chart is a list of resources to consider for the analysis, followed by a checklist of data to consider in identifying regions, industry sectors, occupations, and labor supply for the jobs available.

Employment Resources

Report Type
Current Employment Statistics **(CES):** A monthly survey of business establishments from payroll records on employment, hours, and earnings
Quarterly Census of Employment & Wages **(QCEW):** Quarterly state and county data classified by industry based on quarterly reports filed by employers for over seven million establishments subject to unemployment compensation laws.
Current Population Survey **(CPS):** Labor Force Statistics; the monthly CPS of households provides employment and unemployment information by age, race, ethnic origin, and other characteristics such as educational attainment and veteran status.
Job Vacancy Surveys: Some states design a survey of business establishments by industry sector to identify the projected vacancies expected by occupation. States may use CES data to identify business establishments by industry.
Business Employment Dynamics: Gross job gains and loss statistics. Helpful reports: • ***Quarterly Census of Employment & Wages*** **(QCEW)** • **Unemployment Compensation records (UC)**
Employment by Occupation – ***Occupational Employment Statistics*** **(OES):** An annual survey that provides data on employment and wages by occupation and industry at the national, State, and some metropolitan areas.
Employment Projections: Estimates of the labor market 10 years into future. (http://www.bls.gov/emp/)
Geographic profile – ***Current Population Survey*** **(CPS):** Employment and unemployment demographics of the population by regions and states and District of Columbia.
State and Local Unemployment Rates - ***Local Area Unemployment Statistics*** **(LAUS):** This program provides monthly and annual employment, unemployment, and labor force data for geographic regions and divisions, states, counties, metropolitan areas, and many cities.

Industry Data

Report Type
CES: A survey on employment, hours, and earnings that includes national annual and quarterly employment and wage data by industry for counties.
Employment Projections: Employment projections by industry for 10 years into the future.
Occupations: OES by NAICS codes

Occupational Data

Report Type
Occupational Outlook Handbook: The handbook describes the nature of work, working conditions, the training and education needed, earnings, and projected job prospects. http://www.bls.gov/ooh/
Career Outlook: This includes an overview of occupations, industries, pay, and benefits. Data on the number of people employed in that occupation.
OES: An annual survey that provides wages by area and occupation from annual National Compensation Surveys of establishments and incudes data on employment and wages by occupation and industry for over 800 occupations and 400 industries for national, State, and metropolitan area levels.
Employment Projections: Estimates of the labor market 10 years into the future. http://www.bls.gov/emp/
Careeronestop: Explore careers and find training, job search assistance, and a local American Job Center. http://careeronestop.org
Occupational Information Network - O*NET: Find occupations within industry and those with a bright future. http://www.onetonline.org

Using Labor Market Data

Identify your regional economy

Consider reviewing the following data:

☐ Existing planning regions, economic development regions, and local areas/workforce service areas

☐ Commuting patterns data from the U.S. Census Bureau's OnTheMap tool: http://onthemap.ces.census.gov/

☐ County Business Patterns (CBP) by industry: http://www.census.gov/econ/cbp/

☐ LQ Calculator: http://www.bls.gov/cew/cewlq.htm

☐ Other:

From the data above, identify the regional economy:

Select Industry Sectors *within* the Regional Economy

Consider reviewing the following data:

☐ Concentrations of establishments taken from QCEW: http://www.bls.gov/cew/

☐ Number of employers and jobs by industry (NAICS): http://www.bls.gov/ces/

☐ Total payroll by industry (NAICS): http://www.bls.gov/ces/

☐ LQ Calculator: http://www.bls.gov/cew/cewlq.htm/

☐ Industry projections: http://www.bls.gov/emp/

☐ Business Employment Dynamics – A quarterly data series of gross job gains and gross job losses. Data are helpful in providing a picture of the dynamic state of the labor market http://www.bls.gov/bdm/

Select the top one to two industries to target:

Select the Occupations within the Target Industries as well as Other In-demand Occupations

Consider reviewing the following data:

☐ BLS 2012–2022 employment outlook: http://www.bls.gov/emp/

☐ Job vacancy survey (contact State LMI office for information)

☐ Industry-occupation Staffing Matrix: http://www.bls.gov/emp/ep_table_109.htm

☐ In-demand occupations—a State-specific tool:
http://www.mn.gov/deed/data/data-tools/oid/

☐ OES: http://www.bls.gov/oes/
These data are considered "research estimates" because they are still in development; however, they can provide a good gauge of employment levels and wages for occupations within industries, by geographic location.

☐ Occupational projections: http://www.bls.gov/emp/

☐ New & replacement openings: http://www.bls.gov/emp/

☐ Minimum education requirement by occupation:
http://www.bls.gov/emp/ep_table_112.htm

☐ Occupational Outlook Handbook: http://www.bls.gov/ooh/

☐ CareerOneStop: http://careeronestop.org

☐ Occupational Information Network(O*NET): http://www.onetonline.org

☐ Other:

Review Supply and Demand and List the Entry-Level Occupations to Target for Designing Career Pathways Programs

Targeted Occupation #1:

Career pathways program(s) that prepare participants for targeted occupation:

Targeted Occupation #2:

Career pathways program(s) that prepare participants for targeted occupation:

Targeted Occupation #3:

Career pathways program(s) that prepare participants for targeted occupation:

For a detailed chart of available data sites, link to this George Washington University Matrix:
http://gwipp.gwu.edu/files/downloads/Reamer_and_Poole_Data_Matrix_10-08-14.pdf

2.1b DATA AND RESOURCE GUIDE FOR IDENTIFYING TARGET INDUSTRY SECTORS

In addition to the Labor Market Analysis worksheet (Worksheet 2.1a), ETA's sector strategy group has developed a tool to identify industry sectors based on the frequently asked questions below.

Question: Is the industry strong and concentrated regionally?

Metric 1:

Employment Dynamics: An assessment of current industry employment numbers, new hires, separations, recalls, job gains and losses, and earnings.

Where to find the data:

US Census Bureau's QWI (Quarterly Workforce Indicators) are a set of economic indicators, including employment, job creation, earnings, and other measures of employment flows. The QWI detail firm characteristics (geography, industry, age, size) and worker demographics (sex, age, education, race, ethnicity) and are available tabulated to national, State, metropolitan statistical area (MSA), county, and Workforce Development Board levels. http://lehd.did.census.gov/data/

The QWI Explorer Tool allows for a comparative analysis of a wide variety of employment indicators across counties, MSAs, and workforce development boards for any industry. http://qwiexplorer.ces.census.gov/#x=0&g=0

The LED Extraction Tool allows for a more detailed and intentional examination of specific geographies, employment indicators and industries. http://ledextract.ces.census.gov

BLS – QCEW State and County Map Application allows for a geographic comparative assessment of changes in a variety of metrics within a specific industry for a given time period (e.g., a county-based comparison of the percent change in employment within the hospitality sector for Q3 2015). http://www.bls.gov/cew/

Metric 2:

Historical Growth: Measures current employment levels and past performance of an industry sector including the rate of change over a given period of time.

Where to find the data:

BLS – QCEW State and County Map Application provides a visual representation of State or county comparisons for a variety of metrics collected by the QCEW. http://beta.bls.gov/maps/cew/us

QCEW Data Viewer: County, MSA, State, and National Data by Industry allows for customizable searches for industry (out to six-digit NIACS) data based on the QCEW. Multiyear data is available. http://www.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables

Metric 3:

Industry Concentration (LQ): The LQ variable is a comparative statistic used to calculate relative employment concentration of a given industry against the average employment of the industry in a larger geography (e.g., nation). Industries with a higher LQ (usually greater than 1.0) indicate that a region/State has a comparative advantage in the production of that good or service.

Where to find the data:

BLS – OES Data Set is a semi-annual mail survey designed to produce estimates of the employment and wages for specific occupations. Data are used to produce employment and wage estimates for over 450 industry classifications out to the six-digit NAICS level. http://www.bls.gov/oes/charts.htm

BLS – OES Data Set – LQ Indicator Tool demonstrates which occupations are most concentrated relative to the national average for a specific State or local area. http://www.bls.gov/oes/current/area_lq_chart/area_lq_chart.htm

Metric 4:

Shift Share Analysis: Shift share attempts to determine how much of regional job growth can be attributed to national trends and how much is due to unique regional factors. Shift share helps answer why employment is growing or declining in a regional industry, cluster, or occupation.

Where to find the data:

EMSI (Economic Modeling Statistics International) – Highest Ranked Industries Report This report provides a list of the highest ranked industries according to employment, wages, growth, competitive advantage and LQ. http://www.economicmodeling.com/

Metric 5:

Regional Industry GDP: An analysis of industry strength and performance as it relates to economic activity and the total value of good and services produced over a given period of time.

Where to find the data:

Bureau of Economic Analysis – Industry Economic Accounts provide industry-specific economic performance data for the nation, State, county, or MSA, including GDP and annual input-output. http://www.bea.gov/industry/index.htm

Question: Is the industry growing?

Metric 1:

Future Growth Projection: Largely incorporates historical growth and performance with expectations of growth/decline at a larger geographic scale (i.e., State or nationwide).

Where to find the data:

US Census Bureau Economic Census data are compiled and released every five years and are available for the U.S., States, metro areas, counties, and cities.
https://www.census.gov/econ/census/index.html

US Census Bureau Economic Indicators are monthly and quarterly data available for selected sectors at the national level only.
https://www.census.gov/economic-indicators/

US Census Bureau Economic Statistics – CBP CBP is an annual series that provides subnational economic data by industry. This series includes the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. These data are useful for studying the economic activity of small areas; analyzing economic changes over time; and as a benchmark for other statistical series, surveys, and databases between economic censuses. https://www.census.gov/econ/cbp/index.html

US Census Bureau Industry Statistics Portal – Industry Snapshots allows a viewer to select a specific industry and view all relevant Census Bureau surveys and data files. Clicking on "Selected Visualizations" allows the viewer to view maps, charts, and tables of county-level data for any State. https://www.census.gov/econ/isp/index.php

Metric 2:

Economic Indicators: Historical data detailing metrics such as homeownership, new construction, business licenses and permits, commercial leases, etc. for a specific industry or geography.

Where to find the data:

QCEW Data Viewer: County, MSA, State, and National Data by Industry
http://www.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables

Question: Does the industry meet our outcome expectations (earnings, creation, wage-levels, etc.)?

Metric 1:

Average Wage: This metric calculates the average occupational wage associated with a particular defined industry sector. The average wage provides a perspective on the quality of jobs within a given industry.

Where to find the data:

US Census Bureau's QWI http://lehd.did.census.gov/data/

The QWI Explorer Tool allows for comparative analysis of a wide variety of employment indicators across counties, MSAs, and WIBS for any industry.
http://qwiexplorer.ces.census.gov/#x=0&g=0

The LED Extraction Tool allows for more detailed and intentional examination of specific geographies, employment indicators and industries.
http://ledextract.ces.census.gov

Metric 2:

Job Creation/Gains: Analysis of the number of jobs an industry has added over a given period of time, taking into account losses and separations.

Where to find the data:

See **Employment Dynamics** sections throughout this worksheet for available data sources.

Question: Are there untapped regional assets that give an industry an opportunity to grow/emerge?

Beyond quantitative metrics, communities need to factor in key qualitative on-the-ground intelligence when determining target sectors. The following interrelated regional "assets" should be accounted for, especially as regions look at industry sectors that may not yet be high growth but show potential for emergence in the future:

- Concentrated research and development (e.g. a region may have top-tier research institutions with potential for translating R&D into industry growth and job creation)
- Natural resources; and
- Physical infrastructure (e.g. highways, ports)

Regions should consult with their economic development entities, which often track this information.

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 its 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 have already collaborated with local training institutions. Career pathways systems enhance the sector partnership by offering a clear sequence of coursework and credentials that align with the natural progression of occupations within an industry or across industries—a pathway.

The following graphic from the National Governors Association illustrates the linkages between sector partnerships and career pathways.
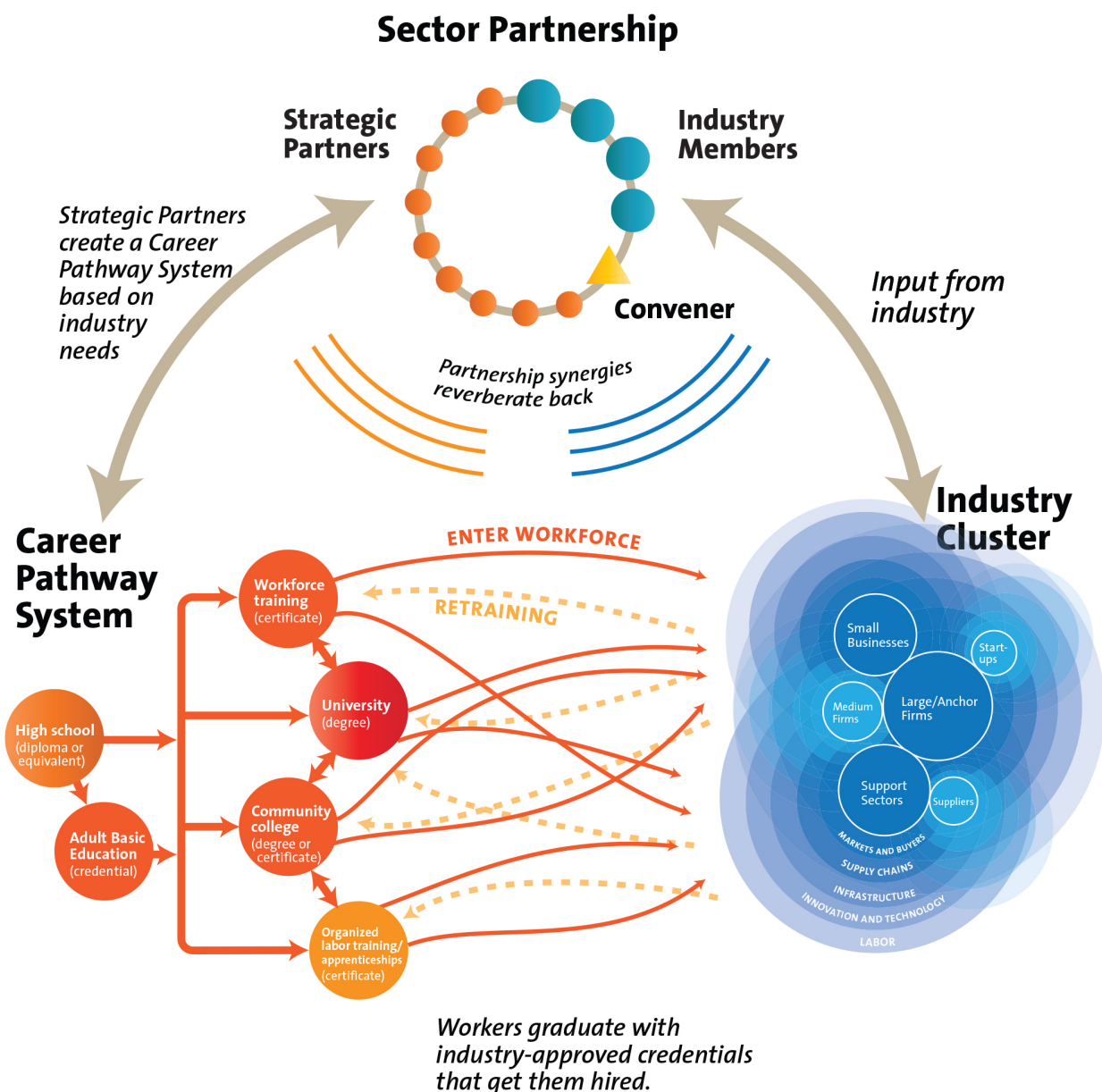
Woolsey, L., & Groves G. (2013). *State sector strategies coming of age: Implications for state workforce policymakers*. Retrieved from National Governors Association Web site: http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-ehsw-publications/col2-content/main-content-list/state-sector-strategies-coming-o.html

Although the leadership team may have identified industry sectors and engaged industry leaders, it is important to determine to what extent agencies have operationalized this approach on a daily basis through the actions of frontline staff. An Employer Engagement Self-Assessment (Worksheet 2.2a) helps evaluate a system's preparedness to move along a maturity spectrum from separate programmatic approaches to employer engagement to a coordinated strategic approach to employer engagement.

2.2a EMPLOYER ENGAGEMENT SELF-ASSESSMENT

This self-assessment is designed to help the leadership team explore the current realities surrounding the collective system's employer engagement strategies.

Partners may complete the assessment separately and then compare answers in a team meeting to identify strategies that will improve upon the team's ability to drive employer engagement strategies to frontline staff. Several staff members at various levels within an organization may complete this worksheet.

Rate the Current Status of the Items Below

1. Staff is knowledgeable of the local labor market area.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

2. Staff has a well-defined purpose in mind when contacting employers.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

3. Staff assess employer's needs rather than try to sell them what they have.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

4. Staff can articulate the agency's value proposition to employers.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

5. Staff knows the value proposition of my agency.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

6. Staff knows the value proposition of cross-agency partners.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

7. Staff uses industry jargon rather than programmatic or government jargon.
    ◯ strongly agree   ◯ agree   ◯ neither   ◯ disagree   ◯ strongly disagree

8. Rate the maturity of your employer engagement strategies.

    a. Staff conducts programmatic job development.
       ◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

    b. Staff conducts outreach as business service representatives.
       ◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

    c. Staff conducts outreach as industry sector navigators.
       ◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

d. Staff coordinates employer engagement strategies across programs.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

e. Staff coordinates employer engagement strategies across agencies.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

f. Agencies share an employer engagement database.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

g. Staff has expert knowledge of services provided by partner agencies.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

h. Programs share marketing materials.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

i. Staff use a collaborative tool for business needs assessment.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

j. Programs collaborate in providing staff with training in how to execute sector strategies.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

k. Programs collaborate in providing staff with training in the State's career pathways system.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

l. Programs collaborate in providing training to staff on how to conduct employer needs assessments.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

9. The system has an employer engagement strategy that incorporates the needs of all programs.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

10. Agencies have a shared vision of success for employer engagement.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

11. Agencies measure the collective impact of a coordinated employer engagement strategy.

◯ always   ◯ often   ◯ seldom   ◯ never   ◯ don't know

Top Three Areas

The leadership team should compare agencies' answers to the assessment instrument in a team meeting. Then, list the top three areas to prioritize in order to move employer engagement activities from a programmatic to a more coordinated strategic and systematic approach.

Need #1 Identified:

Responsible Party:

Strategy:

Need #2 Identified:

Responsible Party:

Strategy:

Need #3 Identified:

Responsible Party:

Strategy:

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

Each agency within the career pathways leadership team may have a different level of engagement within an industry or with a specific employer. To determine which agency/ agencies already have a working relationship within an industry, it may be helpful to take an inventory of their level of engagement. An Inventory of Partners' Employer Engagement (Worksheet 2.3a) is included in this module to help identify the extent to which a partnership has relationships with an employer and/or industry. The business team should complete these worksheets and analyze the results. The results may show that collectively there is a higher level of engagement with an employer or within an industry than expected.

Once the team has documented the level of engagement, it may become apparent that key employers will accept multiple roles and contribute in the development of career pathways programs. The greater the role of the employers, the more likely the career pathways programs will meet industry needs. The graphic below lists some of the roles that employers can play in the system:

PROVIDE REAL EQUIPMENT, SUPPLIES, OR TOOLS

MAKE REAL INDUSTRY-BASED PROJECTS

CO-INVEST RESOURCES IN DEVELOPMENT AND DELIVERY OF TRAINING

ASSIST IN DEVELOPING CERTIFICATION/ CREDENTIALING PROCESS

PROVIDE MENTORING OR WORK-BASED LEARNING OPPORTUNITIES

HIRE COMPLETERS

IDENTIFY PARTNER INDUSTRY LEADERS THAT MAY CONTRIBUTE

AFFIRM THE SET OF FOUNDATIONAL ACADEMIC, WORK READINESS, AND TECHNICAL SKILLS, ABILITIES, AND KNOWLEDGE

AFFIRM THE REQUIRED CERTIFICATES AND CREDENTIALS

HELP DESIGN EDUCATION AND TRAINING PROGRAMS

ASSIST IN INSTRUCTION

PROVIDE ON-SITE TRAINING SPACE

Write an Employer Agreement

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

The MOU can specify the parameters of employer contributions, such as the specific role of an employer instructor; the rules and expectations of any work-based learning opportunities; the use of the employer's facilities and equipment; and any co-investment into curriculum development. For more ideas about potential employer activities that could be included in an MOU, review the employer activities for engagement listed in the Inventory of Partners' Employer Engagement (Worksheet 2.3a).

2.3a INVENTORY OF PARTNERS' EMPLOYER ENGAGEMENT

It may be helpful for the team to take an inventory of what industries State agencies are currently working with and the nature of their engagement. Group the engagement activities with industry into five levels. **Have each agency complete the worksheet for an industry sector to identify the employers they have a relationship with and their corresponding level of engagement.**

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Key Employer Role: Advising	**Key Employer Role:** Capacity-building	**Key Employer Role:** Co-designing	**Key Employer Role:** Convening	**Key Employer Role:** Leading
State of Relationship: Initial contact; new relationship	**State of Relationship:** Establishing trust & credibility	**State of Relationship:** Working relationship	**State of Relationship:** Trusted provider & collaborator	**State of Relationship:** Full strategic partner
New Relationship	**Working Relationship**		**Strategic Partnership**	

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

Note that the engagement activities listed at each relationship level are intended to build upon activities under previous levels. For example, an employer that is a full strategic partner likely engages in activities listed in earlier levels. The activities listed in progressive relationship levels can act as goals and targets for future activities as the relationship deepens.

Level 1: New Relationship

Sector:

Agency:

Employer name:

Contact Person:

Key Employer Role: *Advising*

State of Relationship: *Initial contact; new relationship*

Engagement Activities: (check all that apply)

☐ Discuss hiring needs

☐ Identify skill and knowledge requirements

☐ Advise on curricula

☐ Contract for training

☐ Participate in job fairs

☐ Advise on special accommodations

☐ Consult on LMI and validate labor market research

☐ List job vacancies

☐ Hire applicants from job postings

☐ Hire graduates from training programs

☐ Explore export opportunities

☐ Other: _____

☐ Other: _____

Notes:

Level 2: Working Relationship

Sector:

Agency:

Employer name:

Contact Person:

Key Employer Role: ***Capacity-building***

State of Relationship: ***Establishing trust & credibility***

Engagement Activities: (check all that apply)

☐ Provide job site tours

☐ Provide speakers

☐ Participate in mock interviews

☐ Engage in mentoring

☐ Participate in informational interviews

☐ Provide subject matter experts for job skills analyses

☐ Engage in mass recruitment strategies

☐ Provide work-based learning opportunities

☐ Participate in employee needs assessment

☐ Provide speakers for career explorations

☐ Loan/donate equipment

☐ Recruit and screen candidates

☐ Hire new workers, or select current employees

☐ Identify career ladders/lattices

☐ Identify pay levels for career ladders/lattices

☐ Identify industry-recognized credentials

☐ Pay progressively higher wages as skills increase

☐ Other: _____

☐ Other: _____

Notes:

Level 3: Working Relationship

Sector:

Agency:

Employer name:

Contact Person:

Key Employer Role: *Co-designing*

State of Relationship: *Working relationship*

Engagement Activities: (check all that apply)

☐ Aid in developing pathways

☐ Co-design curriculum

☐ Provide adjunct faculty

☐ Engage in on-the-job training

☐ Co-teach curriculum

☐ Co-design pre-apprenticeships

☐ Co-design apprenticeships

☐ Provide or donate training equipment

☐ Provide training facilities

☐ Other: _____

☐ Other: _____

☐ Other: _____

Notes:

Level 4: Strategic Partnership

Sector:

Agency:

Employer name:

Contact Person:

Key Employer Role: *Convening*

State of Relationship: *Trusted provider & collaborator*

Engagement Activities: (check all that apply)

☐ Connect peers to pathway system

☐ Provide technical assistance and support to peers

☐ Provide related in-house instruction or in partnership with others

☐ Connect businesses with training providers

☐ Advise peers on funding for pathways

☐ Provide industry trainers

☐ Provide funds to expand pathways capacity

☐ Recruit new employers to join partnership

☐ Assist educators on contextualizing curriculum

☐ Co-develop agenda for sector meetings

☐ Other: _____

☐ Other: _____

Notes:

Level 5: Strategic Partnership

Sector:

Agency:

Employer name:

Contact Person:

Key Employer Role: *Leading*

State of Relationship: *Full strategic partner*

Engagement Activities: (check all that apply)

☐ Spokesperson for the industry sector

☐ Sets agenda for sector meetings

☐ Leads sector partnership meetings

☐ Develops marketing strategies to expand talent pool

☐ Mentors peers on career pathways system

☐ Participates as an equal partner on career pathways leadership team

☐ Participates as a member of the State or Local Workforce Development Board

☐ Establishes criteria to measure success of the partnership

☐ Develops career pathway capacity at multiple business sites

☐ Develops career pathway capacity with multiple college partners at strategic locations

☐ Other: _____

☐ Other: _____

Notes:

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 an industry and align curricula 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

Designing a training program requires a thorough understanding of the competencies necessary for successful job performance. Pathway designers, working with the employer, allow the employer to describe and determine the needed skills, knowledge, and abilities for their industry. A precursor to developing a career pathways program is a thorough understanding of what type of positions are most critical to an industry and what their long-term projections are. To determine critical positions, an Employer Needs Guide (Worksheet 2.5a) is used to gather preliminary information on the workforce needs of an industry and/or individual employer. Once critical positions have been identified, drill down and document the essential functions of each job, which form the basis of a competency model.

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 designing a 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. Occasionally, documentation may already exist that will contribute to the development of the model. It is very important that the employer and team review and confirm the accuracy of the lists of competencies.

For a more detailed explanation of competency models, see Element 3: Design Education and Training Programs, Component 3.3 "Review or Develop Competency Models."

2.5a EMPLOYER NEEDS GUIDE

The Employer Needs Guide may help the employer engagement team gather preliminary information on the workforce needs of an individual employer or an industry sector. Use this guide during an industry focus group or one-on-one with an individual employer. This guide has been adapted from the work of CORD.

Industry Needs

This assessment divides workers into three broad levels: entry-level, skilled workers (technical workers), and supervisory. These categories may or may not work for all industries. Modify the instrument as needed.

Entry-level Positions

1. Name the top three critical **entry-level positions** for your industry (*critical to your ability to grow and stay competitive*), their corresponding skills/competencies, and credentials needed:

Position	Skills/Competencies	Credentials Needed

2. Why did you identify these positions as your most critical needs in the **entry-level arena**? Check all boxes that apply, and, where applicable, provide the additional data needed.

☐ Hardest to fill with the right skills/competencies.

What skills/competencies are hardest to find?

☐ Large number of positions needed.

Number projected needed by quarter?

☐ Highest turnover rate.

What is the turnover rate?

What factors contribute to the turnover?

☐ Working conditions ☐ Training

☐ Shift work ☐ Adequate supervision

☐ Competitive salary

☐ Other:

[   ]

☐ The **entry-level positions** require a great deal of company staff time to provide adequate on-the-job training before the employee is productive.

How many weeks/months?

[   ]

3. I anticipate a number of **entry-level positions** will become vacant due to retirements in the next five years.

◯ yes ◯ no ◯ somewhat

What percentage of the workforce?

[   ]

Technical-level (skilled) Positions

1. Name the top three critical **technical/skilled-level positions** for your industry (*critical to your ability to grow and stay competitive*), their corresponding skills/competencies and credentials needed:

Position	Skills/Competencies	Credentials Needed

2. Why did you identify these positions as your most critical needs in the ***technical/ skilled-level arena***? Check all boxes that apply, and, where applicable, provide the additional data needed.

☐ Hardest to fill with the right skills/competencies.

What skills/competencies are hardest to find?

☐ Large number of positions needed.

Number projected needed by quarter?

☐ Highest turnover rate.

What is the turnover rate?

What factors contribute to the turnover?

☐ Working conditions   ☐ Training

☐ Shift work   ☐ Adequate supervision

☐ Competitive salary

☐ Other:

☐ The ***technical-level/skilled positions*** require a great deal of company staff time to provide adequate on-the-job training before the employee is productive.

How many weeks/months?

3. I anticipate a number of ***technical-level/skilled positions*** will become vacant due to retirements in the next five years.

◯ yes   ◯ no   ◯ somewhat

What percentage of the workforce?

Supervisory Positions

1. Name the top three critical **supervisory-level positions** for your industry (*critical for your ability to grow and stay competitive*), their corresponding skills/competencies and the natural progression and credentials needed:

Position	Skills/Competencies	Career Ladder to Obtain this Position (Natural Progression to this Position) and Credentials Needed:

2. Why did you identify these positions as your most critical needs in the **supervisory-level arena**? Check all boxes that apply, and, where applicable, provide the additional data needed.

☐ Hardest to fill with the right skills/competencies.

Skills/competencies hardest to find?

[   ]

☐ Large number of them.

projected needed by quarter?

[   ]

☐ Highest turnover rate.

What is the turnover rate?

[   ]

What factors contribute to the turnover?

☐ Working conditions   ☐ Training

☐ Shift work   ☐ Adequate supervision

☐ Competitive salary

☐ Other:

[   ]

☐ The ***supervisory-level*** *positions* require a great deal of company staff time to provide adequate on-the-job training before the employee is productive.

How many weeks/months?

3. I anticipate a number of supervisor-level positions will become vacant due to retirements in the next five years.

◯ yes ◯ no ◯ somewhat

What percentage of the workforce?

Future Needs

1. What positions in your industry are disappearing?

2. What are you doing to retrain these employees?

3. Are you planning major layoffs in upcoming quarters?

◯ yes ◯ no

If so, what positions?

4. What new positions will you need in your industry in the future?

Future Position	Skills/Competencies

   a. Have you done a job analysis to determine the essential skills/competencies for the positions?

   ◯ yes   ◯ no

   If so, what were the results of the job anaylsis?

   b. If you have not done a job analysis for the future positions, how do you plan to identify the new skills/competencies required?

5. What challenges have you encountered in helping workers keep pace with industry advances?

6. Is your company willing to allow release time for incumbent workers or new employees to participate in training on the company clock?

   ◯ yes   ◯ no

7. What policies do you have in place to support a diverse workforce?

    a. Do you offer telecommuting?

    ◯ yes   ◯ no

    b. Do you offer training incorporating new technologies in the workplace?

    ◯ yes   ◯ no

    c. Do you have an employee mentorship program?

    ◯ yes   ◯ no

    d. Do you provide special accommodations to employees with a disability if needed?

    ◯ yes   ◯ no

    e. Do you provide tuition reimbursement?

    ◯ yes   ◯ no

Training/Upward Mobility

1. What are the potential growth opportunities for employees to advance within your company or industry?

2. Have you mapped out the natural career advancement avenues for entry-level workers?

    ◯ yes   ◯ no

3. What positions have the greatest opportunity for upward mobility?

4. What type of in-house company or industry-supported training do you use to train entry-level workers?

5. What type of in-house company or industry-supported training do you use to train technical/skilled-level workers?

6. Do you have a labor union in which employees participate?

    ◯ yes   ◯ no

7. Does the labor union offer training for your employees?

    ◯ yes   ◯ no

8. List the local training institutions that have provided or are providing training in areas where skill gaps are most plentiful?

Institution	Training Provided

9. Have local training institutions been able to fulfill your needs for qualified workers?

   ○ yes   ○ no

   a.   If no, how could they improve?

   ```



   ```

10. How do you recruit qualified job applicants?

    ☐ Electronic job boards   ☐ Word-of-mouth

    ☐ Newspaper ads   ☐ Training institutions

    ☐ American Job Centers   ☐ Private nonprofit organizations

    ☐ Employee referrals   ☐ Union hiring hall

    ☐ Other:

    ```

    ```

    ☐ Other:

    ```

    ```

    ☐ Other:

    ```

    ```

    ☐ Other:

    ```

    ```

    ☐ Other:

    ```

    ```

    What method is most effective?

    ```

    ```

Component 2.6: Sustain and Expand Business Partnerships

Strong, reliable relationships with employers require a routine series of communications and outstanding customer service 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. The leadership team should also work to figure out how to merge the varying styles and expectations and be well organized. It may be helpful to document employer engagement activities by completing the Matrix of Employer Engagement Activities within a Partnership (Worksheet 2.6a).

As career pathways systems expand to target additional industries or sector partnerships, other employers are cultivated to inform all new career pathways program development. Remember to include economic development agencies in your partnership, as they bring valuable insight into your regional economy.

	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

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

2.6a MATRIX OF EMPLOYER ENGAGEMENT ACTIVITIES WITHIN A PARTNERSHIP

Developing a Coordinated Employer Engagement Strategy Matrix

After completing the agency/agencies form entitled Inventory of Partners' Employer Engagement (Worksheet 2.3a), combine the individual worksheets into a matrix depicting the collective engagement of all partners. Partnerships may move to another level when all agencies participate. The partnership may wish to assign an industry sector or a specific employer to one staff person who can coordinate the business engagement activities with all the involved agencies. Update the matrix periodically to evaluate the lessons learned from previous engagements and share the matrix with all involved agencies. Consider evaluating the level of engagement that best meets the needs of a specific industry sector and/or employer.

The worksheets on the following pages will allow the leadership team to evaluate the overall engagement with an industry sector and/or employer and can assist the team in setting priorities for future engagement within the industry. In the tables on the following pages, check the operating level of each employer in the partnership based on the criteria of key employer role, state of relationship, and information from Worksheet 2.3a.

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Key Employer Role: Advising	**Key Employer Role:** Capacity-building	**Key Employer Role:** Co-designing	**Key Employer Role:** Convening	**Key Employer Role:** Leading
State of Relationship: Initial contact; new relationship	**State of Relationship:** Establishing trust & credibility	**State of Relationship:** Working relationship	**State of Relationship:** Trusted provider & collaborator	**State of Relationship:** Full strategic partner

New Relationship | **Working Relationship** | **Strategic Partnership**

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

| |

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

Sector

Indicate the employer's industry sector.

Complete the chart by entering employers within the identified sector in the first column. Indicate the relationship level with each employer along the row, according to the criteria on the previous page.

Complete a new chart for each sector explored.

Employer	LEVEL 1 Advising	LEVEL 2 Capacity-building	LEVEL 3 Co-designing	LEVEL 4 Convening	LEVEL 5 Leading

REPORTS AND PUBLICATIONS

U.S. Department of Labor, Employment and Training Administration. (n.d.). *ETA sector strategies technical assistance initiative: State support for sector partnerships: A guide for action*. Retrieved from https://businessengagement.workforcegps.org/~/media/WorkforceGPS/ion/Files/New%20Sector%20Strategies/SS_State_Framework_20160602r1FINALbc.pdf

U.S. Department of Labor, Employment and Training Administration. (n.d.). *ETA sector strategies technical assistance initiative: Using data to understand demand*. Retrieved from https://businessengagement.workforcegps.org/~/media/WorkforceGPS/ion/Files/New%20Sector%20Strategies/SS_Understanding_Data_Draft_20160604FINAL.pdf

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

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 Web site: http://www.jff.org/sites/default/files/publications/materials/A-Resource-Guide-to-Employer-Engagement-011315.pdf

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