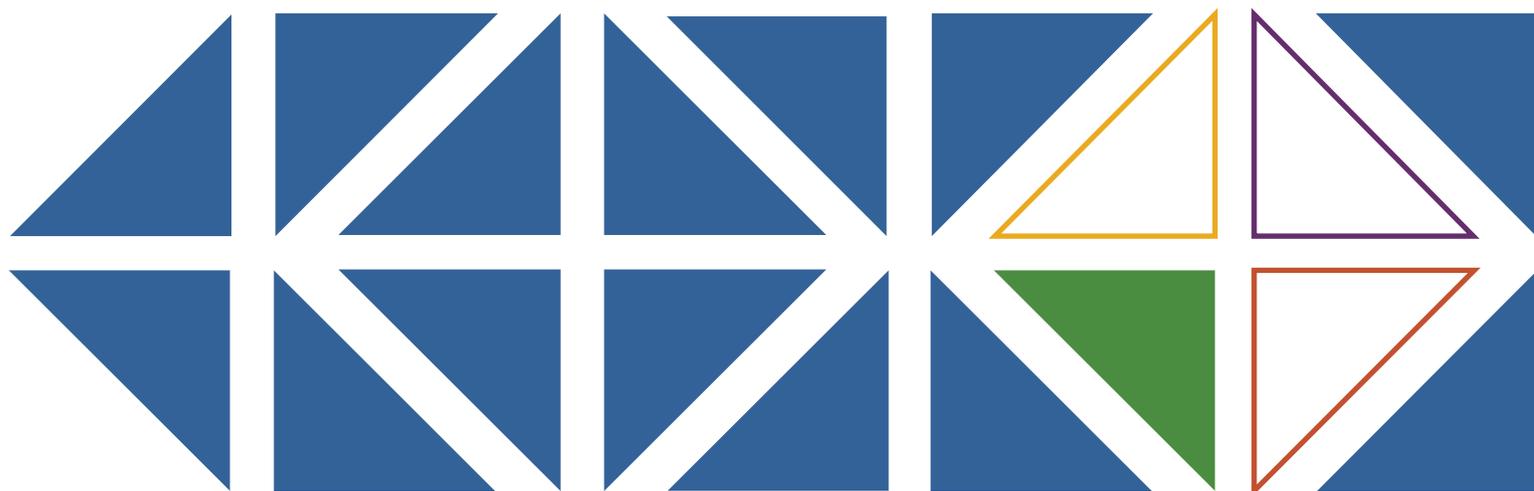


Designing a Career Pathways System

A Framework for State Education Agencies



Chapter 3

Designing a Career Pathways Framework

FACILITATOR'S GUIDE

FEBRUARY 2016

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Overview of the Facilitator’s Guide

Across the nation, state leaders are exploring ways to better connect academic learning with career aspirations and workforce needs. One promising strategy is a career pathways system, a coordinated system of programs and services that supports and guides an individual in the transition from secondary education to—and often through—the workforce. Historically, in a workforce development strategy, education stakeholders are increasingly looking to career pathways as a way to improve student outcomes and help set graduates on a path for success after high school. This *Facilitator’s Guide*, developed by the College and Career Readiness and Success Center (CCRS Center), is designed to provide state education agency (SEA) staff with a process and resources for designing a career pathways system in collaboration with other vested stakeholders from throughout the state.

For SEAs beginning the career pathways design process with this chapter, please be sure to read this introduction. Otherwise, please skip to page 2.

Career pathways can be part of a comprehensive system to support students’ college and career readiness. Career exploration programs and courses are appropriate for students at all levels, especially elementary and middle school students. Because choosing a career pathway requires mature decision making, these courses are most appropriate for students at the high school level.

WHY SEAs?

New data continue to expand our understanding of the inextricable link between education and employment. The endgame for K–12 stakeholders is no longer high school graduation. Instead, necessity demands a longer range view that includes preparing all students for a successful career. The SEA plays several roles in understanding and supporting these career and life goals, including the following:

- ▶ Establishing college- and career-ready goals for all students
- ▶ Determining the college and career readiness standards that outline the skills needed for career readiness
- ▶ Providing the sequence of activities that students can engage in that provide the building blocks for career readiness, including career exploration programs, extracurricular activities, work-based learning opportunities, and so on
- ▶ Facilitating collaborative partnerships with the Department of Labor/Workforce and securing business investments

OBJECTIVE OF THE GUIDE

The *Facilitator's Guide* is written for the project lead, the individual within the SEA who will guide a group of committed partners—from secondary and postsecondary education, labor, policy, and business and industry—through the process of designing and implementing a career pathways system. The *Facilitator's Guide* provides guidance from the beginning stages of stakeholder identification and information gathering, through the design of a pathways system, and into continuous improvement and sustainability planning. For states already in the process of designing or implementing career pathways, the *Facilitator's Guide* can help enhance or refine efforts already underway.

The *Facilitator's Guide* offers an overview of the key elements of a pathways system, along with guidance on a process for designing a system tailored to a state's individual needs and priorities. The *Facilitator's Guide* is organized into four customizable chapters. Each chapter includes the following:

- ▶ Important context or information for the facilitator to know and understand
- ▶ Facilitation tips
- ▶ Slide presentation with facilitation notes
- ▶ Resources

The resources and tools found in the *Facilitator's Guide* do not promote any particular career pathways model or initiative, or address teaching and learning strategies or curriculum resources.

The *Facilitator's Guide* includes chapter objectives, facilitation tips, and activities for each session. There are two types of activities included in this guide:

- ▶ Planning activities, which involve the facilitator and (if applicable) other supporting staff
- ▶ Group activities, which involve a larger group of stakeholders engaged in the work

Each activity includes information and considerations for both internal planning and group activities.

Chapter 3 at a Glance

The goal of this chapter is to facilitate a process for stakeholders to develop a career pathways system framework. This process includes reviewing labor market data, analyzing industry expert presentations, identifying priority industries, and creating a career pathways system framework.

Table 1. Designing a Career Pathways System Framework

 Objectives	 Planning and Preparation Tasks	 Group Activities	 Handouts
1. Review completed prioritized labor market gap analysis.	<ul style="list-style-type: none"> Complete Prioritized Labor Market Gap Analysis Template. 	<ul style="list-style-type: none"> Review completed Prioritized Labor Market Gap Analysis Template. 	<ul style="list-style-type: none"> Handout 3A: Prioritized Labor Market Gap Analysis Template Slides 6–9
2. Learn from industry experts key knowledge, skills, competencies, dispositions, and wage earnings.	<ul style="list-style-type: none"> Identify industry experts and develop presentation. 	<ul style="list-style-type: none"> Develop an understanding of the key knowledge, skills, dispositions, and competencies needed for each industry. 	<ul style="list-style-type: none"> Industry expert slide presentations (to be determined) Slides 10–12
3. Interpret career pathways system data.	<ul style="list-style-type: none"> Interpret career pathways system data. 	<ul style="list-style-type: none"> Interpret career pathways system data. Discuss influencing factors: Funding, policy and partner engagement. 	<ul style="list-style-type: none"> Slides 13–17
4. Develop a career pathways framework.	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Select a career pathways system industry of focus. Develop industry-specific career pathways system framework(s). 	<ul style="list-style-type: none"> Handout 3B: Knowledge, Skills, Dispositions, and Competencies Note-Taking Template Handout 3C: Influencing Factors Template Handout 3D: Career Pathways System Framework Slides 18–27
5. Plan for continuous improvement and sustainability.	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Plan for continuous improvement and sustainability: Timeline Key milestones Resources Outcome data 	<ul style="list-style-type: none"> Handout 3E: Continuous Improvement and Sustainability Planning Document Slides 28–31



OBJECTIVES

In Chapter 3, the information gathering and group analysis conducted in Chapters 1 and 2 result in a career pathways framework for action. The key input for this work will be completed by using



Handout 3A: Prioritized Labor Market Gap Analysis Template. Using this document and industry expert guidance, the facilitator will help the group identify the key skills, knowledge, competencies, dispositions, and wage earnings for the identified industries. This chapter also will help the facilitator identify what is needed to fully implement the system and assess the feasibility of implementing the plan before launching the initiative. There are five objectives in this chapter:

- ▶ **Objective 1:** Review Completed Prioritized Labor Market Gap Analysis Template
- ▶ **Objective 2:** Learn From Industry Experts Key Knowledge, Skills, Competencies, Dispositions, and Wage Earnings
- ▶ **Objective 3:** Interpret Career Pathways System Data
- ▶ **Objective 4:** Develop a Career Pathways Framework Plan
- ▶ **Objective 5:** Plan for Continuous Improvement and Sustainability

PLANNING AND PREPARATION ACTIVITIES



Prioritize Labor Market Data

Designing the career pathways system framework requires a significant amount of preparation work on behalf of the facilitator, and it can take several weeks or months to collect all of the information **Handout 3A: Prioritized Labor Market Gap Analysis Template.** As a reminder, this template identifies important criteria about each of the industries the stakeholder group has deemed important for this work. Completing this template can be done in collaboration with your Regional Comprehensive Center (RCC) or CCRS Center colleagues or labor market or economic development experts from the state. After collecting all of the information in **Handout 3A: Prioritized Labor Market Gap Analysis Template**, the facilitator should send the document to the stakeholder group for their review in preparation for the next in-person session.



This part of the meeting may require more than one person to complete. For example, some experts may understand labor market trends but not be well versed in a particular industry. Ensuring that there are experts who understand both labor market data and the prioritized industries is important to keep this part of the process moving forward. Consider additional supports from workforce investment boards or chambers of commerce for this activity as well.



Identify Industry Experts



In addition to completing **Handout 3A: Prioritized Labor Market Gap Analysis Template**, the facilitator will need to identify experts who provide guidance to the stakeholder groups. Prior to the next in-person meeting, the facilitator will identify key experts from the prioritized industries and ask them to prepare a presentation that provides key information. Information that might be helpful for your stakeholder group to know includes the following:

- ▶ What are the key skills, knowledge, competencies, dispositions, and wage earnings that graduates need for the industry?
- ▶ Are there examples or models from other states or other organizations for how a career pathway was developed or designed for this industry? Are there examples of course sequences that can be shared?
- ▶ What additional guidance, information, or recommendations would this stakeholder group consider?
- ▶ Are there specific employability skills that are important for graduates to possess to be successful in this industry?

It may be difficult for industry experts to speak to other state examples; however, other organizations and partners such as RCC staff can help identify examples in the field.

Also, because this presentation will be a deep-dive, the facilitator may try to anticipate questions that the stakeholder group may have and use that information to guide the industry experts on their presentation.

The expert(s) should share the expert presentations during the next in-person stakeholder session.



Interpret Career Pathways System Data

Prior to the in-person meeting, the facilitator will want to prepare select materials for the group activities. The first group activity that requires preparation is when the group interprets career pathways system data. For this activity, the facilitator will develop a strengths, weaknesses, opportunities, and threats (SWOT) grid on chart paper for each of the prioritized industries.

- ▶ *Strengths* are characteristics of a career pathway for the industry that give it an advantage relative to others.
- ▶ *Weaknesses* are characteristics of a career pathway for the industry that place it at a disadvantage relative to others.
- ▶ *Opportunities* are elements that the industry could exploit to its advantage when pursuing a career pathway.
- ▶ *Threats* are the elements in the environment that could cause trouble for the industry when it pursues a career pathway. The stakeholder group should develop this table for each prioritized industry it discusses.

The Office of Career, Technical, and Adult Education identifies nine overarching employability skills:

- Applied Academic Skills
- Critical Thinking
- Interpersonal Skills
- Personal Qualities
- Resource Management
- Information Use
- Communication Skills
- Systems Thinking
- Technology Use

Additional information on the Employability Skills Framework is available here: http://cte.ed.gov/employabilityskills/index.php/framework/workplace_skills

Exhibit 1. SWOT Analysis Template

Prioritized Industry 1	
Strengths	Weaknesses
Opportunities	Threats

FACILITATION ACTIVITIES

After completing the preparation work for designing the career pathways framework, the facilitator will reconvene the stakeholders. During this meeting, the team will develop an initial framework and long-term action plan for the career pathways system for its state.



Review Completed Prioritized Labor Market Gap Analysis Template (Slides 6–9)



Note: This activity allows stakeholders to share their thoughts on the completed **Handout 3A: Prioritized Labor Market Gap Analysis Template** that had been shared with them prior to the stakeholder meeting. During this conversation, participants should think about the knowledge, skills, dispositions, and competencies needed, as well as the information regarding wage earnings. Participants also will begin thinking about the course sequencing; however, it is likely that the discussion on course sequence will have to be further fleshed out in subsequent conversations.



Develop an Understanding of the Key Knowledge, Skills, Dispositions, and Competencies Needed for Each Industry (Slides 10–12)

During this activity, the facilitator:

- ▶ Asks participants to respond to key questions, including the following:
 - What are the key skills, knowledge, dispositions, and competencies that graduates need for their industry?
 - Will the future wage earnings provide a livable wage for the employee?
 - What might the course sequencing look like for these different industries?
 - What additional guidance, information, or recommendations would you like this stakeholder group to consider?



Note: During this activity, stakeholders will use **Handout 3B: Knowledge, Skills, Dispositions, and Competencies Note-Taking Template** when listening to the prepared presentations and note examples and models to explore. Stakeholders will discuss this information in conjunction with the information collected in the Prioritized Labor Market Gap Analysis Template so that the stakeholders can begin to develop a career pathways framework.



Interpret Career Pathways System Data (Slides 13–17)

All of the work until this point has involved developing stakeholder knowledge of what students would need to know for priority industries in your state, taking into consideration the policy and labor market contexts. Reviewing the information presented, stakeholders will have to decide how they will begin to develop a career pathways framework. The process a state may take to develop this framework will vary based on the data provided and stakeholders' interpretation of the data.

During the activity, the facilitator:

- ▶ Divides stakeholders into small groups, with each group representing one of the prioritized industries.
- ▶ Shares copies of the labor market data report for each industry with the small groups.
- ▶ Distributes four sets of colored sticky notes, with each color representing one of the four quadrants of the SWOT table. See Exhibit 2 for an example.
- ▶ Posts the SWOT grid for each industry around the room.
- ▶ Instructs the small groups to interpret the labor market data and their notes from the Expert Presentation Notes Template for their specific industry. Participants review the data for their industry to identify the strengths, weaknesses, opportunities, and threats. Participants record their findings on the appropriate sticky note (e.g., the color sticky note associated with that quadrant).

After individuals have completed the SWOT on their own, they will want to discuss their individual findings in their small groups. The facilitator:

- ▶ Instructs the small groups to discuss and review findings with each other. During this time, the small groups will consolidate their findings from their group by removing duplicate findings and creating broader themes that capture similar findings.
- ▶ Instructs small groups to post their SWOT findings on the chart paper provided to their group. Exhibit 2 offers an example of what a completed SWOT grid for one industry might look like.

Exhibit 2. SWOT Analysis Example Complete

Prioritized Industry 1	
Strengths ●●●●	Weaknesses ●●●●●
Opportunities ●●●●●●●	Threats ●●

After all of the small groups have developed a complete SWOT grid for their industries, they will present their industry SWOT to the larger group. During this discussion, the facilitator will:

- ▶ Facilitate a conversation where each of the groups share out their SWOT chart paper.
- ▶ Identify SWOT themes across the industries and capture that information on chart paper.

Note: The next set of group activities will help the group further understand the strengths, weaknesses, opportunities, and threats for the industries. The facilitator will want to continue to draw connections between the elements identified in this activity with the elements that the group will discuss during subsequent group meetings.



Discuss Influencing Factors: Funding, Policy, and Partner Engagement (Slides 18-22)

After the larger group has developed a cursory overview of the strengths, weaknesses, opportunities, and threats for the prioritized industries, they will be prepared to examine the industries in more detail. The next set of activities can vary based on which industries have been selected, the capacity of the state, and the current efforts for developing a career pathways system; however, the purpose of these activities is for participants to ultimately decide which industries they want to focus on. As the group begins this conversation, participants should explore three general topics to better inform their career pathways system industry of focus, including funding, policy structure, and engaging partners.

During this activity, the facilitator:

- ▶ Maintains the small-group configuration, with each small group continuing to focus on the industry discussed during the SWOT.
- ▶ Asks participants and expert presenters to respond to a set of questions for each of these general topic areas in their small groups. The small groups capture the information on **Handout 3C: Influencing Factors Template**. Exhibit 3 offers an example of how the facilitator can record the information. Questions for participants include:

Information collected during Chapter 2, including information on the policies, programs, and funding streams, can be used to inform these conversations.

- Funding:
 - What state, local, and private funding currently exists that could be used to prepare and support workers for this industry (total funding available)?
 - What programs are already funded that prepare and support workers for this industry?
 - Is there more funding that is needed to prepare and support workers for this industry? How do you know?
 - How sustainable are all of these funding sources?
- Policy structure:
 - Are there policies in place that support career education programs to focus on this industry?
 - Are there policies that act as a barrier?
 - Where are there natural entry points to this industry through existing policy (e.g., college and career readiness initiatives)?

- Engaging partners (employers, local education agencies, funders, trade unions):
 - Which partners will be most impacted by the development of a career pathways system in this industry (positively and negatively)?
 - How can we engage partners in a meaningful way that supports their overall goals and objectives?
 - What factors might dissuade different partners in engaging in the development of a career pathways system for this industry?
 - What incentives (monetary and nonmonetary) can be considered to promote partner engagement?
 - What information do different partners need to know about this career pathways system? When do they need this information?

Exhibit 3. Influencing Factors Template—Industry 1

	Funding	Policy Structure	Engaging Partners
Industry 1			
Industry 2			

Influencing Factors Template—Industry 2

	Funding	Policy Structure	Engaging Partners
Industry 1			
Industry 2			

After the small groups discuss the questions with their teams, they will report out their responses to the larger group. The facilitator:

- ▶ Captures the responses from each of the groups on chart paper. For each of the industries, the chart paper will be matched with its corresponding SWOT analysis so that participants can see a complete picture of the industry.
- ▶ Instruct participants to revisit their SWOT analysis and add additional strengths, weakness, opportunities, and threats based on the additional information discussed.



Select a Career Pathways System Industry of Focus (Slides 23–27)

In the previous activity, participants analyzed the data available for all of the prioritized industries. In this next activity, participants will vote on the industry or industries that they will focus on and identify the key levers for beginning to develop the framework.

During the activity, the facilitator:

- ▶ Distributes three sticky dots to each participant.
- ▶ Asks participants to vote on the industry that they should focus on for developing a career pathways system. Participants are asked to place their sticky dots on their preferred industries. Participants can place all three on one industry or spread them across different industries. The facilitator can ask participants to vote based on different priorities, including:
 - The pathway(s) that align directly with workforce needs in the state versus pathway(s) that align the least.
 - The pathway(s) that the state can best leverage with existing associations and business leaders versus pathway(s) with the least existing leverage.
 - The pathway(s) that will most likely result in gainful employment versus pathway(s) that would likely have the least gainful employment.
- ▶ Facilitates a conversation after everyone has voted, highlighting the industries that are clear winners. For any industries that are close or not selected, the facilitator allows participants to “make a case” for an industry. If needed, participants can vote a second time to select these industries.
- ▶ Facilitates a conversation with participants to identify which one of these three topic areas makes sense to explore in more detail in subsequent team meetings. As these questions are answered, short- and long-term activities will be brought into the discussion. The facilitator captures this information and uses those notes to inform the final group activity using the Career Pathways System Framework Template.

The number of sticky dots distributed is based on the number of industries to vote on and the number of stakeholders voting. Facilitators should use their expert judgment when determining how many sticky dots to distribute.



Develop Industry-Specific Career Pathways System Framework(s) (Slides 28–31)

During this activity, the large group will begin to develop the career pathways system framework for the industry or industries selected. **Handout 3D: Career Pathways System Framework** can be used to guide the conversation and allow participants a dedicated space to record their notes.



During this activity, the facilitator:

- ▶ Facilitates a conversation with participants to list potential career options within the identified industry.

- ▶ Engages the expert presenters in the conversation to ensure that the career options are comprehensive.
- ▶ Records the potential career options on a piece of chart paper.

After the career options are identified, the group will begin developing the course sequencing for the industry as well as the work-based opportunities and postsecondary options that are appropriate for students preparing for the industry. The course sequencing, work-based opportunities, and postsecondary options should reflect the previous conversation of the knowledge, skills, dispositions, and competencies required for the listed careers. The group also should reference state high school graduation requirements when completing this activity, as those requirements will need to be reflected in the course sequencing conversation and work-based opportunities. Exhibit 4 is a replication of **Handout 3D: Career Pathways System Framework**, which can be used with the larger group to facilitate discussion.

During this part of the activity, the facilitator:

- ▶ Engages the larger group in a discussion regarding the courses that students should take to be prepared for the identified industry. The conversation should begin with a discussion of the state's graduation requirements.
- ▶ Works with the group to complete as much of **Handout 3D: Career Pathways System Framework** as possible. Sections that participants cannot complete during the discussion will be used in the final group activity to help participants plan for continuous improvement and sustainability.

Exhibit 4. Sample Career Pathways Framework

Course Sequencing			
9th Grade	10th Grade	11th Grade	12th Grade

Work-Based Opportunity and Postsecondary Options for the Industry

Work-Based Opportunities	Postsecondary Options
Examples: Job shadowing, internship, apprenticeship, project-based learning	Examples: Two-year program, four-year college, apprenticeships, certifications, other



Plan for Continuous Improvement and Sustainability

After the stakeholder group identifies the next steps for developing the career pathways system, it is important for the group to plan for continuous improvement and sustainability.

During this activity, the facilitator:

- ▶ Primes participants for a larger work plan for the industry career pathways system. This includes:
 - Identifying key milestones—determining important milestone activities and target dates to ensure the state is on track for the overall timeline.
 - Establishing a timeline—describing how long this work will take and securing participants' commitment to the timeline and their role in the work.
 - Identifying necessary resources—determining the resources needed, who or what will provide them, and when in the implementation process they are necessary.
 - Brainstorming expected outcome data—determining measures for career pathways success, including short- and long-term data needs, data sources, and key contacts for the data.



- ▶ Uses **Handout 3E: Continuous Improvement and Sustainability Planning Document** to capture the milestones, timeline, resources, and data that will help plan for continuous improvement and sustainability.

Chapter 3 Summary and Desired Outcomes

The goal of Chapter 3 was for participants to learn additional details about each of the state's prioritized industries. This work includes analyzing labor market data and presentations from industry experts to prioritize the industries and developing a career pathways framework. Participants also prepared for Chapter 4 by identifying next steps and brainstorming the timeline, milestones, resources, and outcome data for those next steps.

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