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Designing a Career Pathways System

A Framework for State Education Agencies

Chapter 2

Mapping and Assessing Career Readiness Policies, Programs, and Industries

FACILITATOR'S GUIDE

MAY 2017

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Designing a Career Pathways System: A Framework for State Education Agencies

Chapter 2: Mapping and Assessing Career Readiness Policies, Programs, and Industries

Facilitator's Guide

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Overview of the Facilitator’s Guide

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

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 support and guide an individual in the transition from secondary education to the workforce. 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.

> The U.S. Departments of Education, Health and Human Services, and Labor define a career pathway as a “series of connected education and training strategies and support services that enable individuals to secure industry relevant certification and obtain employment within an occupational area and to advance to higher levels of future education and employment in that area.” 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, career pathway 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:

- 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; and
- 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 to 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, and
- 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 and
- 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 2 at a Glance

The overall goal of this chapter is to understand the state's career pathways landscape, including policies and programs already in place as well as the growing industries and occupations that will need qualified workers in the future. Table 1 provides a high-level overview of the objectives, planning and preparation tasks, activities, and related resources for Chapter 2.

Table 1. Mapping and Assessing Career Readiness Policies, Programs, and Industries

Objectives	Planning and Preparation Tasks	Group Activities	Handouts
1. Map and assess existing state policies and programs on career readiness initiatives.	▪ Complete the Career Readiness Policies and Programs Mapping Inventory. ▪ Survey stakeholders to inventory existing career pathways efforts.	▪ Review the completed Career Readiness Policies and Programs Mapping Inventory. ▪ Analyze stakeholder survey data	▪ Handout 2A: Career Readiness Policies and Programs Mapping Inventory ▪ Handout 2B: Resources for Surveying Local Practices ▪ Handout 2C: Tips for Developing Surveys ▪ Handout 2D: Data Predictions Versus Actual Data Findings ▪ Handout 2E: Data Inferences and Implications ▪ Slides 6–27
2. Identify growing occupations in the state.	▪ Complete the Labor Market Gap Analysis Template.	▪ Review the completed Labor Market Gap Analysis Template.	▪ Handout 2F: Labor Market Gap Analysis Template ▪ Slides 28–31
3. Prioritize industries and occupations for an in-depth review.	▪ None	▪ Review the completed Labor Market Gap Analysis Template.	▪ Handout 2F: Labor Market Gap Analysis Template ▪ Slides 32–34

Objectives

Chapter 2 focuses on the state policy and labor context, as well as the industries and occupations that will be part of the career pathways system. The key inputs for this chapter include **Handout 2A: Career Readiness Policies and Programs Mapping Inventory** and **Handout 2F: Labor Market Gap Analysis Template**. Using these documents, the facilitator will list and discuss existing career readiness policies and programs,

It is possible that decision makers have chosen industries in mind for a career pathways system; however, it is important to review labor market data with a critical eye to ensure that the industries and occupations will have available job openings.

identify growing occupations in the state, and map those occupations to existing policies and programs. Finally, stakeholders will prioritize which industries and occupations will be the focus of the career pathways system. The work in Chapter 2 will serve as the backbone of Chapter 3: Designing a Career Pathways System Framework.

There are three objectives in this chapter:

- **Objective 1:** Map and assess existing state policies and programs related to the career readiness initiative.
- **Objective 2:** Identify growing occupations in the state.
- **Objective 3:** Prioritize career pathways industries.

Of all the chapters, Chapter 2 requires the most planning and preparation on behalf of the facilitator. For the mapping and assessing state policies and programs activity, the facilitator will collect the majority of the information prior to the next in-person meeting. These tasks can take time to complete, so the facilitator schedule the next in-person stakeholder session with sufficient time to conduct this preparation.

> Consider using existing regions—like state economic or workforce development regions—to inform the scan of regional labor market data. Regional labor market data are typically available from each state's Department of Labor.

Planning and Preparation Activities

Map and Assess Existing Career Readiness Policies and Programs

In each state, numerous policies and programs already in place relate to career readiness. Understanding the current landscape of a state's policies, programs, and funding streams and how they intersect—or do not—is critical to implementing a cohesive career pathways system. **Handout 2A: Career Readiness Policies and Programs Mapping Inventory** will guide the facilitator through a process of mapping the career readiness landscape. The handout creates an inventory of secondary and postsecondary education, labor, and industry programs and policies.

The facilitator will complete the first draft of the inventory prior to the next in-person stakeholder meeting. This activity can be a labor- and time-intensive undertaking for the facilitator, and accessing additional staff or support (such as a Department of Labor or career and technical education partner) is recommended. To complete this first draft, the facilitator should have certain key information available:

- Policy or program funding streams (public and private),
- The name of the policy or program and its purpose,
- The target population and major programmatic or policy components,
- The year(s) for which this policy or program is funded, and
- Opportunities or barriers to alignment with the state's career pathways system goals.

The resulting inventory will be expansive because it will include information from an array of key stakeholder groups in the state, including the governor's office; the legislature; educational, labor, and economic development agencies; and private funding entities. The facilitator also may choose to include additional policies, such as those from the State Board of Education or any other stakeholder group that has implemented or funded a career readiness policy or program.

Note: The facilitator uses this inventory to inform the next in-person group discussion. The facilitator should share the completed inventory with stakeholders at least a week before the next in-person meeting so that the stakeholders have time to review, assess, and prepare a response for the meeting.

Survey Stakeholders to Inventory Existing Career Pathways Efforts

To help map and assess existing policies and programs in the state, the facilitator can use a survey to conduct an inventory of existing career pathways work. A survey can help the facilitator identify career pathways work underway, policies and programs at the district or school level, and potential local funding streams. With this information, the state will have a better understanding of career pathways efforts throughout the state.

Surveys allow a variety of stakeholders to provide feedback in a short time frame. Data are most valuable if they represent all of the intended stakeholders. Efforts should be made to ensure a strong response rate (response rates of at least 60 percent are generally acceptable). Consider the following when conducting a survey:

- Identify which stakeholder groups to survey. Potential stakeholders could include:
  - Classroom teachers,
  - School/district administrators,
  - Local business leaders,
  - School counselors,
  - Parents,
  - Students, and
  - College or university administrators.
- Develop a sampling process if you plan to survey large groups of more than 1,000 people. Develop a random sample for each stakeholder type and focus on getting a good response rate from that smaller sample.
- Determine the survey administration.
  - Select dates to administer the survey that avoid holidays, vacations, testing dates, or other busy dates.
  - Dates should include sufficient time for participants to respond (at least two weeks).
  - Determine what will be the most effective method of administering the survey, such as an online platform or a paper-and-pencil survey. You will want to use the method that will achieve the greatest response rate for each stakeholder group. An online platform will be the most efficient way to

administer the survey and to analyze and aggregate results. However, some stakeholder groups such as teachers or parents may not have the accessible technology to complete the survey.

- Write survey invitations and follow-up communications to maximize response rates.
  - In the invitation, include the purpose of the survey, the deadline, how to complete the survey, and contact information for questions.
  - In the follow-up communication, include reminders about the purpose of the survey, the deadline, and how to complete the survey.
- Carefully design the survey to collect data that will be most beneficial to the needs assessment.
  - Review **Handout 2B: Resources for Surveying Local Practices** for examples of survey items.
  - Read **Handout 2C: Tips for Developing Surveys** for suggestions on how to develop a high-quality survey.
- Pretest the survey with some respondents from each stakeholder group. Ideally, someone will sit with a respondent while he or she takes the survey and ask targeted question about how the respondent is interpreting the items and coming up with answers. With limited time, conducting even just a few of these "cognitive interviews" can provide important information about how well the survey items will work and which items may require revision to improve clarity.

Labor Market Gap Analysis

After identifying the key career readiness policies and programs, the facilitator will need to identify the growing industries within the state. Aligning career pathways with future labor market needs will increase the chances that students will be able to secure gainful employment. Youth who consider and pursue a career in growing business and industry sectors also create a pipeline of trained employees for these employers.

> The Career One Stop website uses federal labor data to identify each state's growing careers. This site is a good place to start when researching the information necessary to complete the table. Information on related occupation policies or programs will be preliminary as it will likely be refined once the facilitator convenes the stakeholders and discusses the information.

To prepare for this discussion, the facilitator identifies the growing industries and occupations and completes the **Handout 2F: Labor Market Gap Analysis Template**. When completing the template, the facilitator should have access to key information about each occupation:

- Annual job openings,
- Number of qualified annual applicants,
- Projected annual gap in qualified applicants, and
- Projected 10-year gap in qualified applicants.

This information will be used with stakeholders to identify and prioritize growing industries. Facilitators can find examples of this information through federal resources such as O*NET OnLine or the Bureau of Labor Statistics, state resources such as the state workforce commission or Department of Labor, and additional resources such as One Stop Career Center or chambers of commerce.

Note: The facilitator will need to use the template table for as many industries as will be the focus of this analysis. Because this work is time intensive, the facilitator may wish to include additional staff within and outside of the facilitator's agency, such as regional comprehensive center staff or staff from other agencies, to locate the information.

If the career pathways system will include micro-economies, that is, economies with greater regional, county, or municipal significance than statewide significance, this information should be included in the mapping process.

Data available through public sources are typically lagging. There are real-time labor market information sources that are usually available for a fee. Costs range from $5,000 to $10,000 for a single-user, one-year license. (*Source:* http://www.jff.org/sites/default/files/publications/VendorProductReview_041712.pdf)

Facilitation Activities

After completing the preparation work for identifying policies, programs, and growing industries, the facilitator will need to reconvene the stakeholders. During this meeting, the team will review the information collected, assess the information (perform a "gut check"), and develop a list of prioritized industries and occupations that would benefit from the development of a career pathways system for their state.

Discuss the Career Readiness Policies and Programs Mapping Inventory (Slides 6–9)
Prior to the meeting, the facilitator:

- Completes a preliminary version of **Handout 2A: Career Readiness Policies and Programs Mapping Inventory.**
- Shares this information with stakeholders.

During the meeting, the facilitator:

- Guides participants through a reflection exercise that focuses on the accuracy of the information as well as a discussion about the opportunities and barriers for alignment with a career pathways system.
- Asks a set of questions that will inform the conversation, including the following:
  - Are all of the policies and programs specific to your work captured in the document?
  - Is the information accurate and characterized fairly?
  - What are additional opportunities and barriers to creating a state career pathways system?

- Leads the group in a discussion about potential areas of alignment and coherence; this second part of the group activity will ask stakeholders to discuss several questions:
  - What are the intersections across current policies, programs, and funding? Where are the gaps?
  - What are the big takeaways as you and other stakeholders head into designing a career pathways system?
  - How do these align with the career pathways goals identified in Chapter 1?
  - What do you want to be sure is reflected in the career pathways system?
- Captures the discussion using a flip chart or another mechanism, and uses that information to later update **Handout 2A: Career Readiness Policies and Programs Mapping Inventory**.

Note: This activity lays the foundation for a subsequent discussion and activity with the stakeholder group to identify the workforce needs for the state and determine which occupations and industries are appropriate for including in the state's career pathways system.

Conduct Data Interpretation (Slides 10–27)

Prior to the meeting, the facilitator:

- Conducts stakeholder inventory survey.
- Brings chart paper, dot stickers, and multicolored sticky notes (a different color representing each stakeholder group).
- Prints copies of survey questions and results categorized by stakeholder group.
- Develops a list of topics aligned to the survey for participants to organize findings.

During the meeting, the facilitator:

- Provides an overview of the survey development process and the response rates.
  - Shares a copy of the survey questions.
  - Provides an overview of the data to familiarize participants.
    - What was the data collection process?
    - Who responded to the survey(s)?
    - What was the purpose of the survey or each survey section?
    - What is the purpose of the review?
- Facilitates a discussion with participants regarding questions they have about the data and their assumptions about what the data will reveal.
  - Prior to reviewing survey data, asks participants to predict the top four themes using **Handout 2D: Data Predictions Versus Actual Data Findings.**
  - Distributes the survey questions and reports the number of respondents from each stakeholder group in Handout 2D.

    - Asks participants to enter their predictions for each question in the table in Handout 2D. After entering predictions, gives participants the survey data and asks them to identify the actual answers. The facilitator should modify the questions in the handout to align with the survey.
    - Facilitates a group discussion on biases participants have specific to the survey questions to help participants understand the perceptions they bring to the analysis. Asks participants to discuss the following questions:
        - What are some of your assumptions and predictions?
        - How do your assumptions and predictions influence your expectations about what the survey results will show?
        - How can we set aside our assumptions and predictions to focus on the data?
- Facilitates a review and analysis of the survey data to identify patterns, trends, and additional questions.
    - Describes how to identify findings and offers examples of what findings look like.
    - Divides participants into groups and assigns each group a stakeholder survey to review.
        - Distributes the aggregated survey data results for each stakeholder group (i.e., teachers, business leaders, higher education stakeholders, etc.).
        - Distributes a colored sticky note to each group. Each stakeholder group is assigned a different colored sticky note.
        - Facilitates each group's review of the survey data and captures findings on the corresponding sticky notes.
            - Posts chart paper on the wall that identifies key topic areas aligned to the survey (i.e., employer engagement; quality and rigor in pathways; ensuring cross institutional alignment).
            - Instructs participants to post their sticky note findings under the topic area that most directly connects with the finding.
- Develops themes and strategies based on the data analysis.
    - Identifies overarching themes from the survey findings by:
        - Reading and discussing findings
        - Looking for related findings
        - Categorizing findings across data sources
        - Synthesizing each category of findings into a theme
    - Divides participants into groups, with each group working on two topic areas.
    - Instructs participants to organize findings into big themes of work based on a variety of stakeholder feedback.

- Records overarching themes and related survey findings on **Handout 2E: Data Inferences and Implications.** For each theme, the group should brainstorm and record draft strategies for how to address that data-based theme.
- Presents themes to the whole group; leads a discussion on the clarity of the theme, questions about the theme, and overlap with other themes.
- Leads participants to engage in a gallery walk of the themes and to prioritize the themes that should be a focus for developing, defining, and refining the career pathways system.
    - Themes are prioritized by having participants place green dots on themes that are essential for career pathways system planning.
    - Participants place red dots on themes that address career pathway system planning but that could better work elsewhere or at a later time.
- Facilitates a reflection discussion by asking participants:
    - What did you learn?
    - How did your predictions compare with your actual data?
    - Were there any surprises in the data? If so, what surprised you?
    - Were there any findings or themes that raised questions?

Prioritizing State Labor Market Gaps (Slides 11–17)
During the meeting, the facilitator:

- Focuses the discussion on the labor market information collected prior to the meeting to identify where industries align with existing policies and programs; participants prioritize which industries the group should focus on for developing a career pathways system.
- Identifies how well the data resonate with the real-life experience of the stakeholder group members.
- Narrows the scope of occupations that the group will consider for inclusion in a career pathways system by discussing any overlap among the growing occupations and the existing programs, policies, and funding streams, especially those over which group members have any influence.
- Writes out on chart paper the industries that will be voted on; see Exhibit 1 for an example of how this information could be captured.
- Asks stakeholders to select their top number of industries (based on the individual state) they want the facilitator to collect more detailed information on. The number of votes and rounds of voting will depend on the number of industries identified in the labor market analysis as well as the information collected on those industries. As a result, this activity should be modified accordingly.

Exhibit 1. Prioritized Industries Sample

Industry 1	●●○	Industry 4	●
Industry 2	●●○○	Industry 5	●●○
Industry 3	●●●○○○	Industry 6	

Note: The facilitator will gather information on the prioritized industry occupations, including knowledge, skills, and dispositions required for graduates entering the workforce. This prioritized industry information will be reviewed at the next stakeholder meeting.

Chapter 2 Summary and Desired Outcomes

The goal of Chapter 2 was to create a list of industries and occupations that are growing within the state or states in the region. By the end of this chapter, the stakeholder group will have participated in a discussion about how these industries and occupations relate to the goals identified in Chapter 1. As a result of this discussion, the facilitator will have a list of prioritized industries to focus on in the next meeting for an in-depth discussion of the knowledge, skills, competencies, and dispositions needed for entry-level workers.

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