

Mapping Bright Futures for New Hampshire:

Facilitator's Guide and Workbook

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For further information on non-discrimination policies and procedures, visit your local CTE Center website, visit <https://ocrcas.ed.gov/contact-ocr> for the address and phone number of the Civil Rights office that serves your area, or call 1-800-421-3481.

Overview

Developed by the Region 1 Comprehensive Center in partnership with the New Hampshire Department of Education's Bureau of Career Development, this document and corresponding materials support New Hampshire teams in exploring the [Mapping Bright Futures for New Hampshire](#) geographic information system (GIS) map. These resources will support facilitating conversations on the data presented in the map and develop recommendations to strengthen career and technical education (CTE) programming and alignment to high-wage, high-demand occupations.

Objectives

Participants will

- learn how to navigate and use the Mapping Bright Futures for New Hampshire GIS map,
- reflect on and discuss data observations from the tool, and
- develop recommendations to support CTE programs in preparing students for high-wage, high-demand occupations in the state.

Audience

The guidance and workbook are designed for a team of invested community leaders, led by a facilitator, who are interested in strengthening CTE programs in New Hampshire to prepare students for bright futures. It is recommended that teams be composed of diverse members and could include representatives from CTE, postsecondary education, business and industry, and state or local policymakers who support identifying employment needs and education training opportunities to meet those needs. The facilitator should be someone comfortable leading community engagement sessions and helping others explore and use data.

Materials

Listed below are the recommended materials for teams to complete the Mapping Bright Futures map exploration and application activities:

- Slide presentation (with talking points and facilitation guidance)
- Printed copies of the Workbook
- Mapping Bright Futures for New Hampshire GIS map
- Mapping Bright Futures tutorial video
- Chart paper
- Pens and markers
- Computer, projector, and screen for the slide presentation
- Internet access
- Computers or laptops for participants

Facilitator's Guide

This section provides facilitators with suggestions for structuring the data exploration and notes on how to implement the suggested activities. The other core components include a workbook, a slide presentation with talking points and facilitation guide in each slide note, and the Mapping Bright Futures GIS map. It is highly recommended that the facilitator thoroughly reviews these materials prior to facilitating the session.

Session Agenda

Table 1 provides a detailed outline of the agenda for the map exploration session, including suggested timing for the activities, corresponding slide numbers, and materials needed. Additional time may need to be allotted for the activities depending on the team's familiarity with the content and the number of participants. The presentation may be divided into two sessions and will take approximately 4 hours total to complete.

Table 1. Detailed Outline of the Agenda

Agenda item	Time	Slides	Materials needed
Welcome and Introductions	10 minutes	1–9	<ul style="list-style-type: none"> • Slides
Introduction to Mapping Bright Futures for New Hampshire	20 minutes	10–30	<ul style="list-style-type: none"> • Slides • Mapping Bright Futures for New Hampshire GIS map • Tutorial video
Mapping Bright Futures Practice: Crosswalk	20 minutes	31–35	<ul style="list-style-type: none"> • Slides • Mapping Bright Futures for New Hampshire GIS map • Workbook • Pens • Computers/laptops
Mapping Bright Futures Exploration: High-Wage, High-Demand Occupations	60 minutes	36–42	<ul style="list-style-type: none"> • Slides • Mapping Bright Futures for New Hampshire GIS map • Workbook • Pens • Computers/laptops
Break	15 minutes		
Mapping Bright Futures Exploration: CTE Program Accessibility and Alignment	75 minutes	43–48	<ul style="list-style-type: none"> • Slides • Mapping Bright Futures for New Hampshire GIS map • Workbook • Pens • Computers/laptops
Developing Recommendation	30 minutes	49–50	<ul style="list-style-type: none"> • Slides • Mapping Bright Futures for New Hampshire GIS map • Workbook • Computers/laptops • Chart paper • Markers
Additional Resources	10 minutes	51–53	<ul style="list-style-type: none"> • Slides

Guidance for Activities

Welcome and Introductions (Slides 1–9)

Objective: Develop a sense of community among team members and share the purpose and goals of the session.

Overview of engagement: The facilitator will welcome participants; the facilitator and team members will briefly introduce themselves. The facilitator will review the agenda, objectives of the session, and any norms that have been agreed upon for discussion.

Introduction to Mapping Bright Futures for New Hampshire (Slides 10–30)

Objective: Participants will learn about the functionality and how to navigate the Mapping Bright Futures GIS map.

Overview of engagement: The facilitator will introduce the purpose of the tool and the importance of place effects. The facilitator will explain how to navigate the GIS map and demonstrate the various functionalities of the tool.

Activity implementation: The following are three options for facilitating this section of the session:

- The facilitator presents slides 10–30 and gives a tour of the Mapping Bright Futures map to participants.
- The facilitator plays the tutorial video during the session, which covers the same content as the slides and includes a tour of the map.
- The facilitator assigns the tutorial videos for pre-work to participants prior to the session.

Mapping Bright Futures Practice: Crosswalk (Slides 31–35)

Objective: Participants will understand how to use the crosswalk dashboard of the Mapping Bright Futures map.

Overview of engagement: The facilitator will demonstrate the crosswalk dashboard and explain how the crosswalk can help identify the career pathway aligned to each occupation. Next, the facilitator will provide the link for participants to access the Mapping Bright Futures map. Participants will then practice exploring the crosswalk by completing a pop quiz.

Activity implementation: The facilitator will show the questions on slides 34 and 35, asking participants to find the answer using the crosswalk. The facilitator will give 3 to 5 minutes for participants to find the answer and then have participants share their answers. The facilitator will then click on the slide to show the correct answer.



Mapping Bright Futures Exploration: High-Wage, High-Demand Occupations (Slides 36–42)

Objective: Participants will identify their local high-wage, high-demand occupations.

Overview of engagement: The facilitator will demonstrate the “High Wage/Demand Occupations” dashboard of the Mapping Bright Futures map and provide an overview of the instructions for the activity. The facilitator will divide participants into pairs, and each pair will explore the “High Wage/Demand Occupations” dashboard. The map exploration can be divided regionally or focused on a particular region relevant to the team.

Activity implementation: The facilitator will divide participants into pairs or small groups, depending on the number of participants, with one member serving as the navigator who will drive the map and one member serving as the notetaker who will write responses in the workbook. If hosting a session with a statewide focus, the facilitator can assign groups by region. Below are the steps for setting up and facilitating this activity:

1. When organizing the small-group setup, ensure that groups have space to engage in conversations without disrupting other groups.
2. Provide each group with pens and hard copies of the workbook
3. Instruct the navigator to share the Mapping Bright Futures map with the group and adjust the filters as they explore the map.
4. Direct groups to follow Handout 1 in the workbook for guidance on the specific filters and questions to help explore the maps. The notetaker will write the group's responses to the reflection questions in Table 1 of the workbook.
5. After groups finish responding to the reflection questions for their assigned county(ies), the facilitator will bring them back together.
6. The facilitator will ask participants to share out, based on their exploration of the map, what occupations they found that were high-wage, high-demand and any early reflections.



Mapping Bright Futures Exploration: CTE Program Accessibility and Alignment (Slides 43–48)

Objective: Participants will determine CTE program accessibility and alignment to local high-wage, high-demand occupations.

Overview of engagement: The facilitator will provide a demonstration of the “CTE Programs” dashboard. Next, participants will practice exploring the “CTE Programs” dashboard together by responding to a quiz question. The facilitator will divide participants into pairs or small groups to explore the dashboard. Finally, the facilitator will ask each pair or group to share out their observations from the activity.

Activity implementation: The facilitator will divide participants into pairs or small groups, depending on the number of participants, with one member serving as the navigator who will drive the map and one member serving as the notetaker who will write responses in the workbook. If facilitating a statewide session, the facilitator can assign groups to explore the map by specific career pathways and school districts. If the session is focused on one region or area of the state, the facilitator can assign career pathways and occupations that were identified as high-wage, high-demand in the previous activity. Below are the steps for setting up and facilitating this activity:

1. Assign groups their career pathways and districts to explore in the “CTE Programs” dashboard of the map.
2. Instruct groups to follow Handout 2 in the workbook for guidance on the specific filters and questions to help explore the maps. The notetaker will write the group’s responses to the reflection questions in Table 2 of Handout 2 in the workbook.
3. After groups finish responding to the discussion questions for their assigned career pathways and districts, the facilitator will bring them back together.
4. The facilitator will ask participants to share out, based on their exploration of the map, what they observed related to the alignment of CTE programs to high-wage, high-demand occupations and student access to CTE programs.

Developing Recommendation (Slides 49–50)

Objective: Participants will develop recommendations for strengthening the alignment of CTE programs to high-wage, high-demand occupations and improve student access.

Overview of engagement: The facilitator will divide participants into small groups to discuss and respond to reflection questions on the chart paper.

Activity implementation: The facilitator will divide participants based on career pathways that were identified as misaligned to high-wage, high-demand occupations and districts that lacked access to CTE programs to prepare students for high-wage, high-demand occupations. Below are the steps for setting up and facilitating this activity:

1. Provide each group with chart paper and markers.
2. Instruct each group to identify a notetaker who will write responses on the chart paper.
3. Assign each group a career pathway and/or district to discuss and respond to the reflection questions on slide 50.
4. Ask each group to share out one recommendation from their discussion.

Additional Resources (51–53)

Objective: Participants will learn about other resources to support the use of Mapping Bright Futures for New Hampshire.

Overview of engagement: The facilitator will share about the lesson planning resource, its purpose to help teachers support students to use the map for career exploration and share where to access it.



Workbook Instructions

This workbook is designed to guide users through navigating the geographic information system (GIS) map and facilitate reflection to examine the data. The workbook provides the following:

- Step-by-step instructions for how to navigate the map
- Reflection questions to consider when exploring the GIS map to identify trends, opportunities, and challenges with strengthening alignment to career and technical education (CTE) programs and high-wage, high-demand occupations
- Note-taking space to document observations and responses to the reflection questions

Handout 1: Top 10 High-Wage, High-Demand Occupations

Explore the “High Wage/Demand Occupations” dashboard of the GIS map for your assigned county and a county of your choice. Write your observations in Table 1, which includes an example in italics for your reference. Follow the steps below to help navigate the GIS map:

1. Select your county from the navigation menu on the left. The selected county will be highlighted in green on the map.
2. Review the list of “Top 10 high-wage high-demand occupations” on the right side of the map. The table will default to show occupations by job availability. Write your observations on what occupations have the greatest job availability in the first column in Table 1.
3. Click the tab at the bottom of the “Top 10” list to view the list of occupations by starting salary. Note your observations on what occupations have the greatest starting salary in the second column of Table 1.
4. Looking across your observations on occupations with the greatest job availability and starting salary, reflect on any patterns and anything that stands out to you. Write your observations in the third column of Table 1.
5. Select three occupations and find their career pathways from the “Crosswalk” dashboard, and write them in the final column of Table 1.

Table 1. High-Wage, High-Demand Data Observations

What are the occupations with the greatest job availability?	What are the occupations with the greatest starting salary?	Observations	Pathway
Example: County: Coos			
<ul style="list-style-type: none"> • Registered nurses • Radiologic technologists and technicians • Respiratory therapists • Marketing managers • Computer and information systems managers • Software developers 	<ul style="list-style-type: none"> • Architectural and engineering managers • Computer and information systems managers • Marketing managers • Chief executives • Registered nurses • Software developers 	<ul style="list-style-type: none"> • Occupations in healthcare have the greatest job availability. • Occupations in IT have the highest starting salary but not as many openings compared to healthcare. 	<ul style="list-style-type: none"> • Registered nurse: Therapeutic services • Software developer: Programming and software development • Marketing manager: Marketing management

What are the occupations with the greatest job availability?	What are the occupations with the greatest starting salary?	Observations	Pathway



What are the occupations with the greatest job availability?	What are the occupations with the greatest starting salary?	Observations	Pathway



What are the occupations with the greatest job availability?	What are the occupations with the greatest starting salary?	Observations	Pathway



Handout 2: CTE Program Accessibility and Alignment

Explore the “CTE Programs” dashboard of the GIS map for your assigned career pathways and two career pathways of your choice. Write your observations in Table 2, which includes an example for your reference in italics. Follow the steps below to help navigate and document your observations from the GIS map:

1. Select viewing the data for a single adult in the navigation menu on the right.
2. Select your career pathway from the second drop-down list in the navigation menu on the right. The CTE programs will highlight in blue on the map for the selected career pathway.
3. Select each occupation for the selected career pathway in the second drop-down list.
 - a. Review the data visualizations in the map. Note your observations on the demand for the selected occupation in the second column of Table 2.
 - b. Refer to the list of counties with the most job openings and starting salaries in the box in the upper right-hand side of the map.
 - i. In which counties, if any, is this occupation high-wage and high-demand? Write your observations in the third column of Table 2.
 - ii. Pick a county from the table. Are CTE programs available in the selected county? Does the county have aligned secondary and postsecondary CTE programs? Write your observations in the fourth column of Table 2.
4. Select the 30-minutes button for drive time, and choose the school district from the last drop-down list in the navigation menu. Consider school districts in counties based on your observations from Step 3. Write your observations in the final column of Table 2.

Table 2. Observations on CTE Program Accessibility and Alignment

Occupation	Demand for occupation	Counties with the most job openings or highest starting salaries	Secondary and postsecondary CTE program availability and alignment	Observations on access (drive time)
Example pathway: Construction				
Carpenters	<ul style="list-style-type: none"> • Three counties in the highest range of demand • Remaining counties in the second highest range except Hillsborough 	<p>Job openings</p> <ul style="list-style-type: none"> • Carroll • Grafton • Sullivan <p>Starting salaries</p> <ul style="list-style-type: none"> • Rockingham • Hillsborough • Grafton 	<ul style="list-style-type: none"> • Available CTE program in every county • One postsecondary CTE program in Hillsborough • Grafton has one CTE program and two in Vermont 	<p>Districts in Grafton not 30 minutes from CTE program:</p> <ul style="list-style-type: none"> • Thornton • Campton • Waterville Valley

Occupation	Demand for occupation	Counties with the most job openings or highest starting salaries	Secondary and postsecondary CTE program availability and alignment	Observations on access (drive time)