

New Hampshire Education-to-Workforce GIS Project



High-Leverage Problem

The COVID-19 pandemic presents not only a health crisis but also an economic challenge for New Hampshire. Many industries and businesses had to quickly adapt to meet social distancing guidelines and other health and safety measures, including closing for periods of time, limiting services, and scaling back production. Some businesses pivoted to a work-from-home model; others that were deemed essential experienced greater strain, and industries unable to safely provide goods or services experienced losses. Between February and October 2020, New Hampshire lost 62,000 jobs, or 9% of jobs in the state, according to the U.S. Bureau of Labor Statistics. The job losses varied by industry: the arts, entertainment, and recreation; state government; and the hospitality and food services industries lost approximately 23% to 28% of jobs between February and October 2020. As the pandemic continues, these losses may have a long-lasting impact on the economy and labor market needs.

To support economic recovery from the COVID-19 pandemic and to plan for the future education-to-workforce pipeline, New Hampshire will require current data to understand the evolving labor market. Further, the state will need to develop strategies and policies to strengthen alignment in career and technical education (CTE) programs with high-wage, high-demand occupations. New Hampshire families and students also will need data to understand the changes in the labor market and to identify appropriate CTE pathways that will lead to high-wage, high-demand careers.



R1CC Approach

This project builds on the work started by the Region 1 Comprehensive Center (R1CC) in Year 1 to use geographic information system (GIS) mapping as a tool to help the New Hampshire Department of Education (NHED) understand current CTE program and labor market alignment. The project includes reviewing New Hampshire's labor market data, identifying the high-wage, high-demand jobs and occupations, and mapping those job opportunities by county.

In addition, the R1CC team will review current CTE pathways offered and determine how those pathways align to specific occupations. The team will then map those data into a geographic information system (GIS) software program to visualize how the location of CTE pathways aligns with labor market opportunities statewide and by county.

● — ⊙ — ⊙ → Key Milestones

- Created a wireframe and mock-up for the GIS data dashboards outlining the format, organizations, and features of the GIS map
- Developed a crosswalk to align data from CTE programming, occupations, and postsecondary data
- Built a GIS map



Outputs

- GIS wireframe and guiding research questions
- Crosswalk of data illustrating alignment between occupations and CTE programs
- GIS map with data dashboards

Outcomes

- New Hampshire has aligned data to connect CTE programming from secondary and postsecondary institutions to pathways and occupations.
- NHED increased organizational capacity to access and share cross-agency data.



“Something that was a real strength was R1CC’s staff frequent communication. They wanted to make sure they were responding to our needs. So, a lot of times they would ask questions that were pretty deep and probing and often times I hadn’t thought of myself. I think a real strength of the project and project management was this ongoing communication, this willingness to ask frequent questions, and to really dig in, so there’s a certain depth to the analysis that they were providing that really allowed it to develop in a way that ended up meeting our needs in a really good way.”