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**Problem Question for 2024 NC Education Datathon**

EVENT DESCRIPTION

The goal of the NC Datathon is to leverage technology and data to develop innovative solutions for addressing complex problems. This event will bring together university and student-led teams from across North Carolina. Teams are challenged to solve an education-related problem by using multiple sources of data. With the support of industry mentors, teams will work to develop applications, dashboards, and/or solutions to the problem and then present their projects to a panel of expert judges and conference attendees who vote for the best team. The two-day event will include keynote speakers, team work time, presentations, judging, and awarding of winners.

**Connecting Career and Technical Education (CTE) and North Carolina Workforce Needs**

The COVID-19 pandemic had a major impact on the United States unemployment rate and job openings. At the end of 2020, [10.7 million](https://www.bls.gov/news.release/pdf/jolts.pdf) workers were unemployed, and 6.65 million jobs were vacant. Even prior to the pandemic, the disparity between the jobs available and the skillsets of job seekers – also known as the skills gap – was a concern. In a 2019 survey, [75 percent](https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM%20Skills%20Gap%202019.pdf) of human resource professionals stated they had difficulties recruiting candidates for a job because the candidate pool lacked the requisite skills. As North Carolina works to [ensure](https://www.dpi.nc.gov/districts-schools/operation-polaris/portrait-graduate) that high school graduates are prepared for success in a 21st-century place of work, it is crucial that schools are offering career and technical education programs and experiences that are aligned with the state’s workforce needs.

Questions to consider:

* What are the state’s short and long-term workforce needs?
* How are K-12 schools currently preparing students to meet those workforce needs?
* Do all students have access to workforce development courses and programs?
* How could North Carolina better align career and technical education with the state’s workforce needs?

Data Sources:

* + United States Census Bureau Data - <https://www.census.gov/>
  + NC’s Official Labor Market Data Source (NC Department of Commerce) - <https://d4.nccommerce.com/>
  + NCDPI State and School Report Cards - <https://ncreports.ondemand.sas.com/src/state?year=2022&lng=en>
  + <https://www.dpi.nc.gov/data-reports/school-report-cards/school-report-card-resources-researchers>
  + <https://www.dpi.nc.gov/data-reports/school-report-cards/data-sources-and-information-guide>
  + Perkins State Plans and Data Explorer - <https://cte.ed.gov/dataexplorer/build_enrollment>
  + NC Tower Data - <https://tower.nc.gov/>
  + NC Careers Data - <https://nccareers.org/look-new-job/search-for-a-job>
  + NC Prosperity Zones – <https://www.ncse.org/>
* NC Main Street & Rural Planning Center - <https://www.ncmainstreetandplanning.com/>
* NC List of Essential and Career Credentials - <https://nccareers.org/credentials/credentials-list>
* myFutureNC County Alignment Profiles - <https://www.myfuturenc.org/news/myfuturenc-releases-2022-county-attainment-profiles/>
* NCDPI County Funding - <https://ncreports.ondemand.sas.com/srcfinance/>
* [dpi.nc.gov/broaden-successful-participation-advanced-courses-1/download?attachment](https://www.dpi.nc.gov/broaden-successful-participation-advanced-courses-1/download?attachment)