# ExcelinEd

Data Science for our Students, Schools, and Workforce

Frequently Asked Questions | 2024

Why do we need students to learn data science in our schools?

Data is everywhere, but the people with the skills to interpret the data and make it useful are not. According to a **recent report** from ExcelinEd and the Burning Glass Institute:

- Over 22% of US job postings require data science skills. **See where your state ranks** in employer demand for data science skills.
- For some jobs, employers are willing to pay up to a 14% wage premium for data science skills.
- Some of the fastest growing careers are the most data-intensive.
- Data science skills are no longer tied to a narrow set of data science jobs.
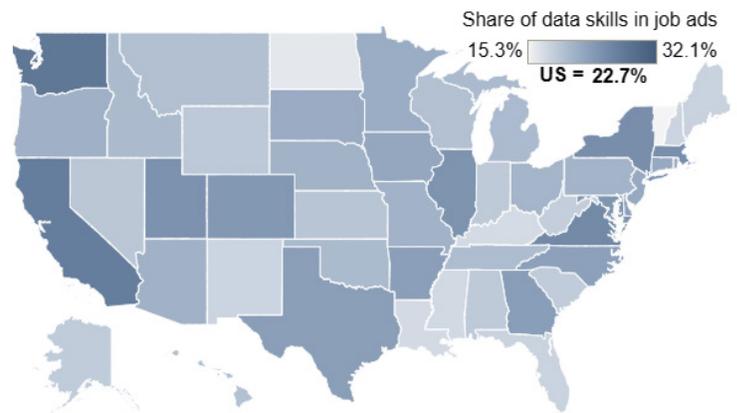
Most schools either don't offer data science, or data science skills are barely covered in the student learning standards. In fact, the most recent National Assessment of Educational Progress (NAEP) shows student scores in the fundamentals of data have been declining greater than any other math content area. And this decline existed before COVID.

How can policymakers ensure data science is available to students in K-12?

- Create a data science course or sequence of courses for students in high school.
- Recognize data science coursework as a higher-level math credit for high school and for college admissions.
- Modernize K-12 subject standards to incorporate data science skills that better align to a data-driven world.
- Provide professional development opportunities for educators to teach data science skills.

> " *I like NOT getting the question [from students] of, "when am I going to use this?"* "
> Ashley Salisbury, teacher in Davis School District (Utah), referring to data science

What is data science?

Data science equips students with the introductory skills and problem-solving that are necessary to collect, analyze, interpret, model, and visualize data. In K-12 education, data science focuses on the systematic processes, analytical techniques, and use of appropriate technologies to gain knowledge from data. Data science draws upon tools and methods in areas such as mathematics, statistics, and computer science.
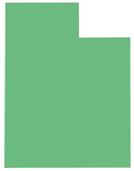
Spotlight on Utah

Utah is currently piloting a data science course in high school with interested teachers and school districts. The state now has one fourth of its school districts prepared to teach data science in high school.

Spotlight on West Virginia

West Virginia is in the process of adopting **new high school mathematics standards**, which include exploring, analyzing, visualizing, and communicating data through data science skills.

Spotlight on Arkansas

Arkansas created a three-course sequence of data science in high school that will prepare students to succeed in postsecondary education and careers in data science. The data science course sequence concurrently fills career and technical education and math requirements.

Where can I find additional resources?

To read and learn more: **ExcelinEd landing page for data science**, **DataScience4Everyone**.

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