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COLLEGE & WORKFORCE READINESS WHAT THE RESEARCH SAYS

The State of Career and Technical Education, in Charts

By Sarah D. Sparks — June 03, 2024 2 min read

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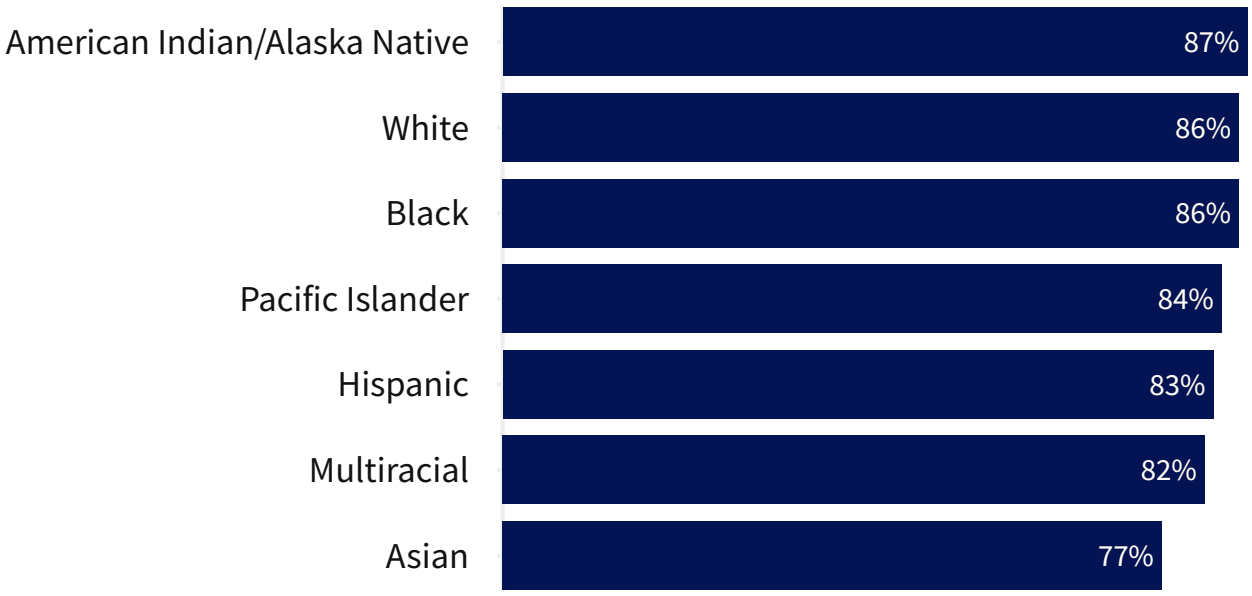
More than 8 in 10 high school graduates completed at least one course in a career-education field in 2019, according to new federal data. However, it's unclear how much secondary career pathways really link to students' work after graduation.

The U.S. Department of Education's annual Condition of Education, released last week, highlighted detailed data from 2019 to give an updated snapshot of career and technical education teachers, courses, participation, and postsecondary degrees.

Career education remains somewhat skewed to male students, 87 percent of whom earned career-tech credit in 2019, 5 percentage points more than female students who earned CTE credit. Each credit, or Carnegie unit, represents 120 hours of class time in a particular subject.

Who earns career-ed credit?

While 85 percent of 2019 graduates earned at least one Carnegie credit in a career education course, those rates differed by student groups, according to federal data.



SOURCE: U.S. Education Department, Condition of Education 2024, Career and Technical

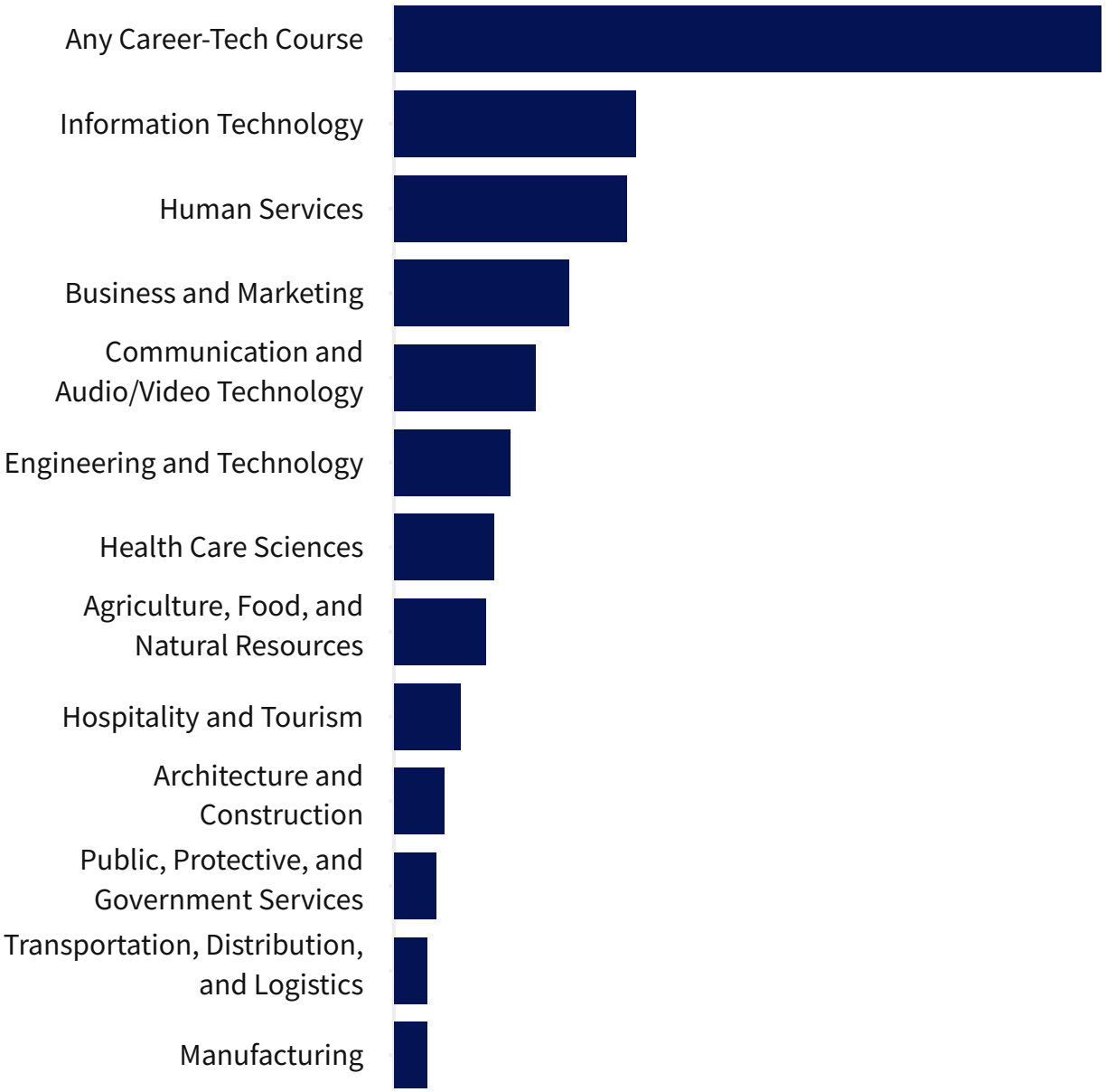
EdW
A Flourish chart

More students took information technology courses than any other field. Technology and health sciences have gotten boosts in recent years, as more school districts offer "pathways," or multi-year curriculums focused on high-need career fields.

Which career classes do students favor?

More than 8 in 10 high school students earn at least one credit in career and technical education, according to 2019 federal data. Technology courses lead in popularity.

High School Graduates Earning Credit



SOURCE: U.S. Education Department, Condition of Education 2024, Career and Technical Education Spotlight

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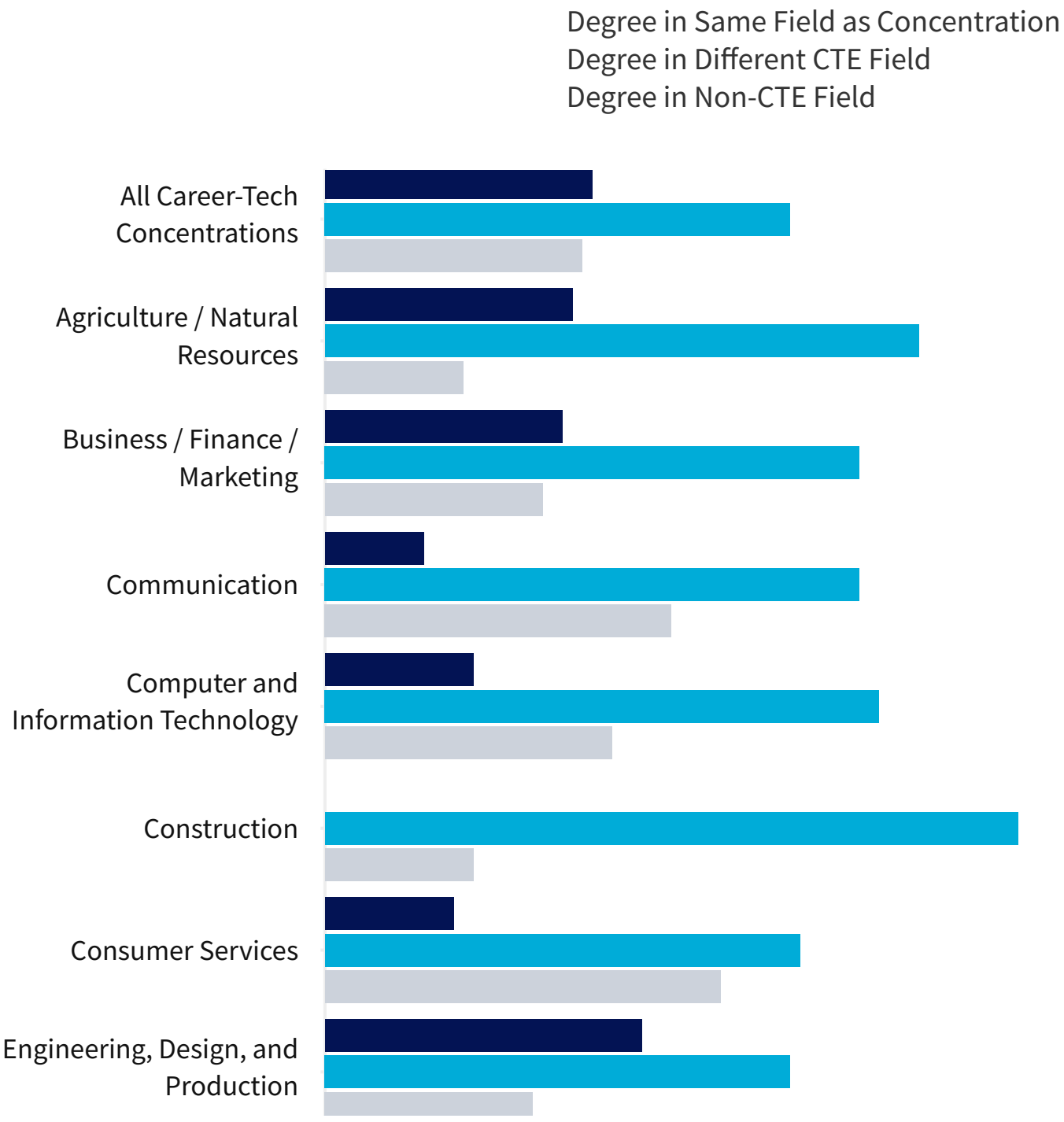
In 2023, every state except Massachusetts, Minnesota, and New York passed career-education laws, with a majority of the new laws adding accountability measures for the programs and supporting more industry partnerships and work-based learning for schools. The legislative push was part of a more than decade-long state effort to make career-focused coursework more challenging and build pathways from school to work, regardless of whether students go to college after high school.

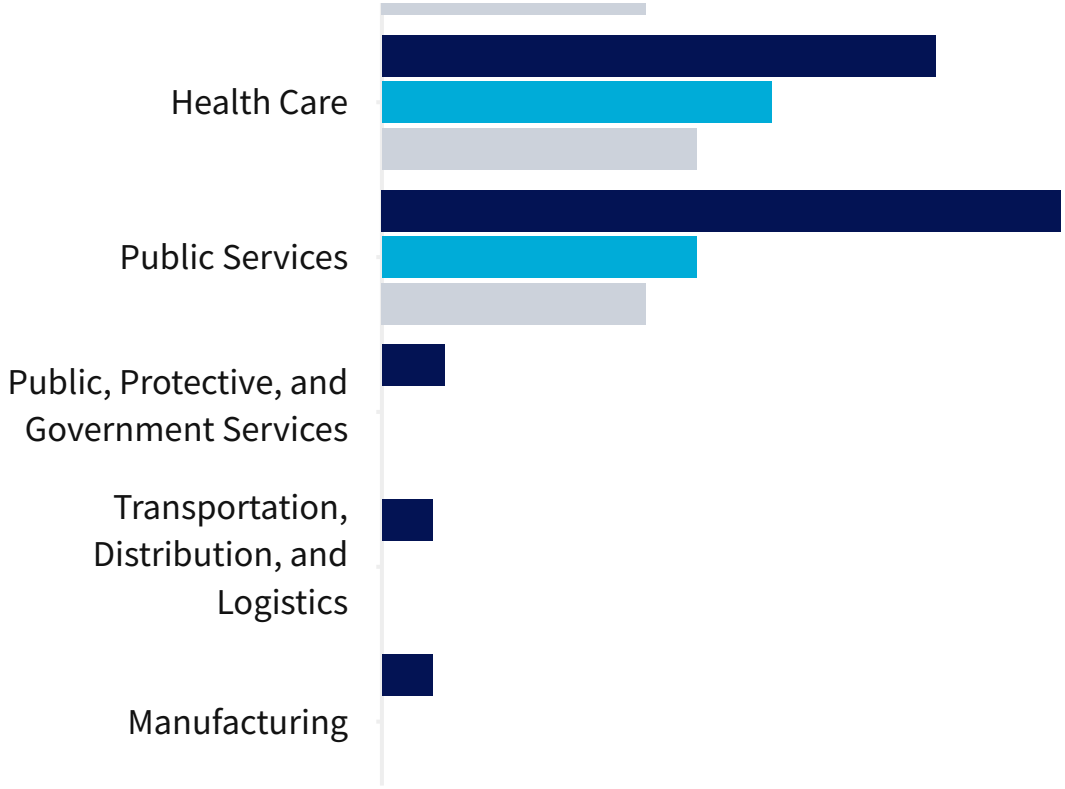
The federal data show that career-tech pathways may still funnel students into shorter-term degrees after high school. Among public school graduates in 2013 who entered a college degree program by 2021, those who had concentrated on career-education courses in high school were nearly twice as likely to earn an associate degree (14 percent versus 9 percent) than those who didn't focus on CTE. However, 54 percent of non-CTE students earned at least a bachelor's degree, while less than half of CTE-focused students did so.

Do students' postsecondary degrees match their high school concentration?

More than 1 in 3 students who graduated in 2013 and earned postsecondary degrees by 2021 had followed a career and technical education concentration or pathway in high school, federal data show, but these did not always match their postsecondary fields.

High School Graduates' Postsecondary Degrees





SOURCE: U.S. Education Department, Condition of Education 2024, Career and Technical Education Spotlight
NOTE: Interpret asterisk data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.

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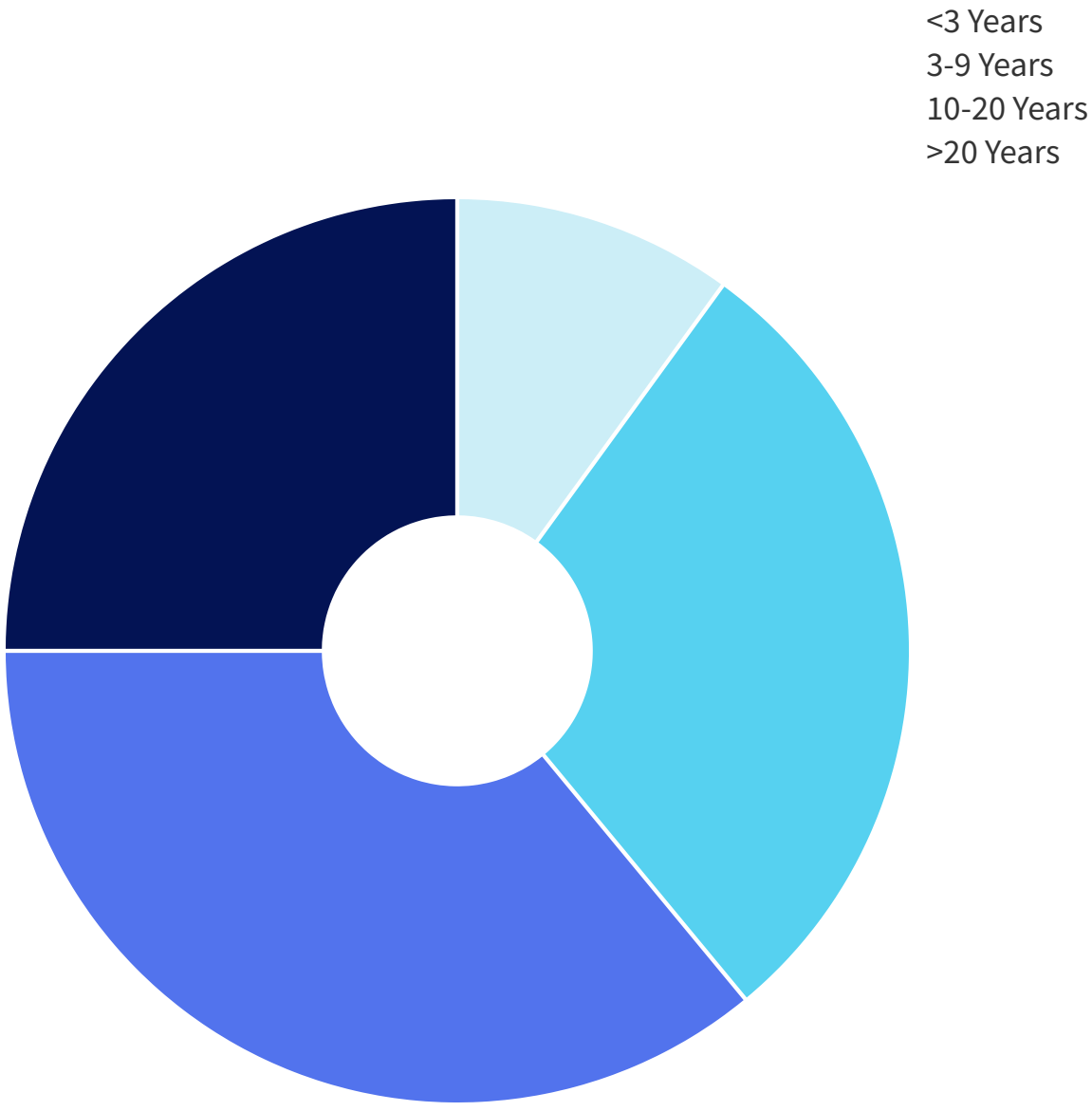
A Flourish chart

The federal data also show school districts continue to struggle to recruit and keep high-quality career-tech-education teachers across a multitude of fields.

Career-tech teachers' experience

Eleven percent of U.S. teachers in grades 9-12 focus on career-technical education as of 2020-21, federal data show. While their teaching experience generally mirrors the teaching force as a whole, career education includes significantly more teachers in their first three years on the job. For example, language arts included about 7 percent early-career teachers, and only 5 percent of math and science were new, versus 10 percent of career-tech teachers.

Hover on the graphic below to reveal data.



SOURCE: NCES Condition of Education, Career-Technical Education Spotlight

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A Flourish chart

For example, the 42,000-student Kern High School district, in Bakersfield, Calif., offers—and must recruit teachers for—some 40 career pathways, from finance to medical research to industrial robotics.

Dean McGee, Kern's deputy superintendent of educational services and innovative programs and a 2023 EdWeek Leader to Learn From, launched a special teacher-induction program to move industry professionals like welders to the classroom, which McGee said has helped them keep up with demand.

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