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Introduction

In the fall of 2013, the U.S. Department of Education, Office of Career, Technical, and Adult Education (OCTAE) invited states and discretionary grantees to submit requests for individualized technical assistance to improve the quality of their Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) accountability systems. The Hawai‘i Department of Education requested technical assistance in identifying key career and technical education (CTE) policy questions and integrating CTE data into the state’s developing state longitudinal data system (SLDS). The linked data available through a state longitudinal data system has the potential to allow Hawai‘i to investigate issues that it has been unable to fully explore before.

This report summarizes key policy questions identified by other states and national initiatives and through preliminary discussions with Hawai‘i state CTE administrators. The report also provides a structure for a brainstorming process to more specifically identify the CTE policy questions that are most important to the state.
Key Policy Questions

Following are common key policy and research questions developed by other states and national initiatives. The policy questions listed here represent research topics that administrators, instructors, students, families, and the public may need or want to know about CTE in Hawai‘i, and can be explored through a range of measurement approaches.

- How many students enroll in CTE?
- How well do CTE students do in high school?
- At what rate do secondary CTE students transition to postsecondary education?
- Are CTE students ready for further education?
- How well do CTE students do in postsecondary education?
- Are CTE students prepared for the workforce?
- How successful are CTE students in the workforce?
- How relevant and effective are CTE programs?
- What types of programs and course delivery methods are effective for CTE?
- How effective is CTE instruction and guidance?
- What benefits does CTE offer students, parents, and the public?

Measures of Key Policy Questions

States and national initiatives have identified a variety of measures to explore common key policy questions. Measures are often tailored to state or initiative priorities and circumstances.

The performance measures provide more concrete detail about the general policy question and offer the option to disaggregate and compare results for subgroups of interest. Examples of populations of interest could include CTE concentrators and non-concentrators, students in different types of institutions, students participating in concurrent enrollment, students with different demographic characteristics, and students in different regions of the state.
How many students enroll in CTE?

- What is total CTE enrollment by grade and program/cluster?
- At what rate do students with different characteristics enroll in CTE?
- What is CTE’s market penetration?
- Do all students have equitable access to CTE programs and courses?

How well do CTE students do in high school?

Disaggregate results by student characteristics, course type, program, concurrent enrollment, and cluster.

- What percentage of CTE programs or courses use performance-based assessments?
- At what rate do students pass performance-based assessments compared to students taking traditional assessments?
- What are students’ overall grade point averages and grades in CTE and non-CTE courses?
- How well do students perform on state assessments of reading/language arts and math?
- What is the four-year graduation rate of CTE students versus all students?
- How many CTE students earn a high school diploma, and what type of diploma do they earn?
- What percentage of high school dropouts complete a diploma or earn a GED within three years?
- What preparation have students had prior to taking CTE courses, and does that affect success?

At what rate do secondary CTE students transition to postsecondary education?

Disaggregate results by student characteristics, course type, program, cluster, concurrent enrollment, and students in underrepresented groups.

- What percentage of CTE students enroll in postsecondary education?
- What is the timing of students’ enrollment after leaving high school?
- What percentage of students enrolls in related postsecondary programs?
Are CTE students ready for further education?

Disaggregate results by student characteristics, remedial course type, program, cluster, and concurrent enrollment.

- How many students earn postsecondary credits while in high school, and in what courses?
- How many of those credits are eventually applied to a credential program in postsecondary?
- What percentage of students takes remedial coursework in postsecondary education?
- At what rate do students complete developmental courses and take gateway courses?
- When are postsecondary CTE students most likely to transfer to further education (by credits and awards earned and time)?

How well do CTE students do in postsecondary education?

Disaggregate results by student characteristics, courses taken, type of award earned, type of institution, program, cluster, remedial course-taking, past concurrent enrollment participation, and part-time versus full-time enrollment.

- At what rate do students persist from year to year and term to term?
- At what rate do students pass their first year courses?
- At what rate do students complete courses and earn credits for the classes in which they enroll?
- What percentage of students earns a postsecondary award and how long does it take?
- How many credits have students earned by the time they receive their award?
- What percentage of students takes and passes state and national licensing and certification examinations?
- Are CTE students transferring from one institution to another and completing their degrees at the institution they transferred into without any loss of time?
Are students prepared for the workforce?
Disaggregate results by student characteristics, coursetaking, program, cluster, and credential attainment.

- What percentage of secondary CTE students participates in a career and technical student organization?
- How many CTE students participate in work-based learning opportunities?
- What percentage of students demonstrates proficiency in technical and employability skills?
- What percentage of students works while in high school or postsecondary education?

How successful are CTE students in the workforce?
Disaggregate results by student characteristics, program, cluster, time to employment, employment retention, wage growth relative to prior earnings, and dropouts versus graduates/completers.

- What percentage of students is found to be employed, in the military, or in an apprenticeship program within six to 12 months of leaving education?
- What are their average wages or earnings?
- At what rate are they retained in employment over time?

How relevant and effective are CTE programs?
Disaggregate results by student characteristics, region, program, and cluster.

- What percentage of students has a personal learning plan in high school and postsecondary?
- What is the average CTE enrollment compared to overall enrollment in education?
- How many postsecondary CTE students are employed and upgrading their qualifications?
- At what rate do students complete CTE programs?
- What are the annual costs of CTE programs?
- What are the most common transfer programs for CTE students?
• Do any CTE programs lead to occupations/industries with high unemployment or high out-of-field employment rates?
• How successful are CTE programs in meeting current and future labor market needs?

**What types of programs and course delivery methods are effective for CTE?**

Disaggregate results by student characteristics, region, course type, program, cluster, delivery method, and students in underrepresented groups.

• What delivery methods are offered and how many courses are available (online, hybrid, other)?
• How many students enroll in courses offered through nontraditional methods and what are their grades and pass rates in these courses?

**How effective is CTE instruction and guidance?**

Disaggregate results by student characteristics, program, cluster, type of certification, and participation in professional development.

• What percentage of high school CTE teachers has a traditional or alternative certification?
• What instructional improvement initiatives are being developed and implemented and how many students are involved?
• What level of experience and education do teachers and instructors have?
• What professional development is offered and what percentage of instructors participates?
• How successful are students with completed personal career/education plans compared to those who have partial or no formal plans?

**What benefits does CTE offer students, parents, and the public?**

Disaggregate results by student characteristics, program, cluster, concurrent enrollment participation, and student goal.

• How much do students save by participating in dual enrollment while in high school?
• How long do postsecondary students take to earn an award and how many courses/credits do they take?
• What is the cost of a CTE concentrator who graduates from high school versus all other high school graduates?
• What goals do students have and what percentage achieves those goals?
• How many students are employed before and after education and what percentage sees an increase in wages?
• How many students report they were prepared for their career after completing a CTE program?
• What percentage of employers is satisfied with the preparation of the CTE students they hire?
Brainstorming Discussions

Brainstorming sessions are designed to help stakeholders generate research and topic ideas that are specific to Hawai‘i. Through the sessions, participants may consider several questions and topic areas relating to CTE.

Questions

- What do you most want and need to know about CTE students in secondary, postsecondary, and adult education?
- What do you feel that parents, teachers, administrators, and policy makers want and need to know?
- How might your answers to these questions change in the next few years?
- What reports have been requested from your office?
- What issues have come up related to CTE in the media?
- What trends or new issues in CTE have you noticed locally, in other states, and nationally?

Topic Areas

- Who is participating?
  - Student characteristics
  - Instructor characteristics
  - Equity and access
  - Focus on particular groups

- How are they participating?
  - Program subject area
  - Program type
  - Program locations
  - Curricula features
• What are their outcomes?
  • Secondary education outcomes
  • Postsecondary education outcomes
  • Employer-recognized credentials
  • Workforce outcomes

• What factors contribute to their outcomes?
  • Instructor credentials/experience
  • Courses
  • Programs

• How effective are programs and what benefits do they offer?
  • Costs per student
  • Costs per outcome
  • Student and employer satisfaction
  • Employment and earnings
References


Richards Sheil, Amanda and Laura Rasmussen Foster. 2013. *Integrating Colorado Career and Technical Education Data into RISE.* Colorado Community College System.


