



DATA AND PROGRAM IMPROVEMENT

By Catherine Imperatore

THE RECENT PUSH FOR EVIDENCE-BASED DECISION-MAKING AND DATA-SYSTEM INNOVATIONS HAS

helped education programs harness data to improve programs and enhance student outcomes. Data-driven decision-making is now encouraged on the local, state and federal levels and is a key component of the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) through the comprehensive local needs assessment (CLNA). For these reasons, Data and Program Improvement is one of the ACTE's 12 elements of high-quality CTE within the *Quality CTE Program of Study Framework*.

The Data and Program Improvement element of ACTE's quality framework includes nine criteria that address collection, reporting and use of data for continuous evaluation and program improvement, as well as appropriate access to relevant data. The criteria listed below are from the 2018 version of ACTE *Quality CTE Program of Study Framework*.

Criteria for High-quality Data Collection and Use

- a. All stakeholders understand why data are collected, how they will be used and their value in supporting student success.

In high-quality programs of study, staff communicate to all stakeholders — students, parents/guardians (when appropriate), instructors, support staff and program partners — what data are collected, how data are kept secure and what data are used for. Students need to know that their data will be kept private and used to further their learning needs, not to punish them. Instructors and partners also need assurances that data being collected and reported will be used to further student and program goals.

- b. Processes and supports are in place in the program of study to ensure the timely and accurate collection and submission of valid and reliable data for required reporting.
- c. In addition to data required for reporting, data aligned with program of study goals and the elements of ACTE's *Quality CTE Program of Study Framework* are collected to aid in program improvement.
- d. Labor market information is used to inform program of study decision-making and support program improvement.

Programs of study that receive Perkins funds must report performance on Perkins accountability indicators. In addition, many states require additional reporting; for instance, performance on state college- and career-readiness measures. To ensure that required reporting is accurate and timely, program of study staff should have access to an aligned data infrastructure across the classroom, the district/institution and ultimately the state, with clear roles and responsibilities, data glossaries, timelines for collection and reporting, and training for users.

In addition to required reporting, programs of study can chart performance on internal indicators that align with goals or address challenges specific to the program, institution or community. These could be performance targets for special or underserved learner groups or measures of program quality, such as increasing the number of career-advising opportunities available to students or

growing participation in career and technical student organizations. Results from self-assessment tools like the ACTE framework can be used to track progress on measures of program implementation and quality.

It is also vital that programs of study have access to current and projected occupation and industry data. These data, combined with employer input, help administrators and teachers decide what programs to develop, where to shift program focus to more closely align with occupational trends and when to significantly change or close programs that no longer respond to labor market demand. Criteria in the Standards-aligned and Integrated Curriculum element and Business and Community Partnerships element further address integrating partners into the data analysis and program evaluation process.

- e. Privacy and security protections that adhere to all federal, state and local privacy laws are in place for data collection, storage, analysis and reporting.
- f. Educators have access to relevant, valid and reliable aggregate data on all students participating in the program of study.
- g. Educators have access to relevant, valid and reliable data disaggregated by gender, race and ethnicity, and special population status, thus facilitating the comparisons of access and performance among subpopulations and with the general student population and the identification of equity gaps.

As noted earlier, a robust infrastructure is needed to support required reporting and also to ensure that data systems fully align with federal, state and institution/district-specific privacy laws and guidelines. Organizations like the Data Quality Campaign have resources to help districts and institutions turn legal requirements into functional systems and suggestions for ways to go further than the letter of the law to protect student data.

These security and privacy procedures should not prevent program of study staff from accessing data — both aggregated and

disaggregated by learner groups — for analysis and the development of action plans to close gaps and improve programs. Indeed, analyzing disaggregated data is integral to completing the CLNA. Further criteria in the Prepared and Effective Program Staff element address educators' needs for professional development, time and resources to effectively collect, report and analyze data.

- h. Data is shared in an easy-to-understand format with students, parents/guardians (as appropriate), partners and the public.

Programs of study should share aggregate data with all stakeholders in ways that are easy to read and understand; for instance, through charts and filterable data visualization tools. This engages the entire stakeholder community in understanding the program's accomplishments and challenges, and develops trust through transparency.

- i. There is a formal process in place for the systematic and continuous use of data, including student access and performance data and program evaluation results, for program improvement, including addressing equity gaps.

Formal processes are needed to navigate the complexities of continuous collection, reporting and use of data to respond to student needs and improve programs. Programs of study staff should regularly meet to iteratively review data, identify goals, develop action plans and track progress toward program improvement and enhanced learner outcomes, with a clear understanding of roles and responsibilities within this process.

Success Strategy: Data-driven Institutional Change

Amarillo College in Texas has used data to drive big changes at the institution, in order to better support the needs of each learner. Through a data summit for faculty and staff as well as student focus groups, the college learned that students were preoccupied with food, housing, transportation, child care and health-care challenges, impacting their academic progress. Amarillo College

developed a multi-pronged response focused on accelerated learning, predictive analytics and wraparound supports. It restructured programs to include stackable credentials and established a career and employment center, among other supports. The college also developed a broader and deeper data system and created data dashboards to communicate progress. Since implementing these changes, the college's three-year graduation rate has increased by nine percent, with an increase of 16% for black students. In 2019, Amarillo College was recognized by Achieving the Dream for its data-driven approach and measurable improvements in student outcomes.

Learn More and Assess Your Programs

Practitioners can turn to ACTE's High-quality CTE Tools online library for resources on data collection, reporting and use. The Data and Program Improvement section features case studies on using labor market data for program decision-making, strategies for accessing industry certification data and tips on how to share data in easy-to-understand formats.

In addition, practitioners can use the *Quality CTE Program of Study Framework Self-evaluation Instrument* to assess a single program, or multiple programs across a district or institution, in relation to Data and Program Improvement and all 12 elements of high-quality CTE. The rubric can be completed on paper or online, where users can receive automatically calculated scores, save and print their results, and connect to the online library for areas identified as needing improvement. ■

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acteonline.org/high-quality-CTE

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