



# THE ONES THAT GOT AWAY

*Why Completing a College Degree Is Not the Only Way to Succeed*



## ***Acknowledgements***

This LearningWorks inquiry guide was prepared in association with WestEd, a research, development, and service agency that works with education and other communities to promote excellence, achieve equity, and improve learning for children, youth, and adults.

The principal author of this guide was Kathy Booth, Senior Research Associate at WestEd. It follows on three previous pieces published by LearningWorks: *The Missing Piece: Quantifying Non-Completion Pathways to Success* (2013), *What's Completion Got to Do With It? Using Course-Taking Behavior to Understand Community College Success* (2012), and *Segmentation Model of Assisting Course-Taking Patterns: A Research Methodology and Discussion Guide* (2012).

See the “Find Out More” section at the end of this guide for a listing of related guides and resources on the topic of skills-builder students.

## ***About***

### **LEARNINGWORKS**

LearningWorks aims to strengthen student achievement in community colleges. It does so by facilitating, disseminating, and funding practitioner-informed recommendations for changes at the system and classroom levels, infusing these strategies with state and national insights. LearningWorks is supported by the William and Flora Hewlett Foundation and the Walter S. Johnson Foundation.

### **WESTED**

WestEd is a nonprofit research, development, and service agency that works with education and other communities to promote excellence, achieve equity, and improve learning for children, youth, and adults. WestEd has served as the West's Regional Educational Laboratory for over 40 years. To learn more about WestEd's areas of work, the services we offer, and the impact our agency has had on policies, systems, and people of all ages, visit [WestEd.org](http://WestEd.org).



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## ***Introduction***

Recent research on the California community college system has revealed that workforce training programs yield some of the highest earnings for community college students, regardless of whether those students complete a degree or college certificate. Still, most conversations about community college success are limited to whether students graduate. An exclusive focus on degree completion does not fit well with the diversity of workforce training pathways that colleges have built in career and technical education (CTE), because many of these pathways do not lead to a college credential. By expanding definitions of student success to include employment, earnings gains, and third-party credentials, colleges will be able to more accurately measure the outcomes of all their CTE programs. This brief draws on numerous studies to explore alternative approaches to measuring how well community colleges serve CTE students.



## UNDERSTANDING CTE PATHWAYS

Community colleges offer many different career training pathways to serve a wide variety of students pursuing different goals. In addition to providing comprehensive programs that teach the fundamental skills of various professions, community colleges support rapidly evolving fields in which retraining is needed, and provide experienced workers an opportunity to retrain for emerging professions. This training may be offered several ways. Some CTE courses are part of for-credit programs, and other CTE offerings are given as noncredit classes or through contract education—custom training designed and paid for by specific employers.

In California, where most workforce training exists within for-credit programs, new research has shown that both short- and long-term community college participation has a significant impact on students' earnings, whether or not students achieve a community college credential (Bahr, 2014). Students in CTE pathways account for most of the earnings gains attributable to community colleges. Furthermore, in many CTE pathways, students who take only a few courses see a larger earnings gain than students who obtain an associate's degree in non-CTE disciplines.

However, because the completion of a community college credential is the gold standard for success, students who participate in short-term CTE training are currently counted as failures. As a result, colleges may push these students to the back of the enrollment priority line (Bahr & Booth, 2012) or elect not to schedule courses that are not part of a completion pathway (Bahr, Gross, Slay, & Christensen, 2014). Students may have to go to for-profit training providers to learn these skills, at a significantly higher price, and community colleges will have fewer ways to address the skills gaps that are reported by many employers.

## Research Sources

This brief draws on a number of research studies that measure the success of career and technical education (CTE) students:

**Peter Riley Bahr**, associate professor at the University of Michigan, has conducted several studies on labor market outcomes of California community college students by matching the state's student records against earnings information from California's unemployment insurance system. [www.soe.umich.edu/people/profile/peter\\_riley\\_bahr/](http://www.soe.umich.edu/people/profile/peter_riley_bahr/)

**The California Community Colleges Chancellor's Office** has also investigated wage gains by matching the state's student records against earnings information from California's unemployment insurance system. [www.rpgroup.org/resources/exploring-labor-market-returns-california-community-college-awards-comparing-wages-complet](http://www.rpgroup.org/resources/exploring-labor-market-returns-california-community-college-awards-comparing-wages-complet)

**The CTE Outcomes Survey** is sent to students in California who completed nine or more vocational units and are no longer enrolled, or who earned a community college CTE credential. Thirty-four colleges (30 percent of the California community college system) participate in the survey. [www.santarosa.edu/cteos](http://www.santarosa.edu/cteos)

**WestEd** conducted interviews with faculty and administrators at eight colleges that had a significant number of skills-builder students in specific program areas to better understand offerings and student profiles. [www.wested.org/project/quantifying-non-completion-pathways-to-success](http://www.wested.org/project/quantifying-non-completion-pathways-to-success)

In California’s community colleges, about two-thirds of the students who complete a CTE course are of traditional college age (17–22 years old). A third are older (23–50 years old), so most often enter college with some work experience. Some of these students also already hold a credential, such as an associate’s or bachelor’s degree, third-party or community college certificate, or journey status in a trade. Given the scale of the California community college system, the number of older students being served is significant. Among students who started community college between 2002–2006, well over a quarter of a million (272,008) “non-traditional” students took CTE coursework—accounting for one-sixth (17 percent) of all students who began community college during that time period. Returning students, particularly in CTE, often

“Certificates have become so popular that **they are now the second-most common higher education credential** in the United States, behind bachelor’s degrees but ahead of associate’s degrees.”

need to fill in missing skills rather than start from scratch, and can do so either by taking a few courses or participating in certificate programs that can be completed in a year or less. Therefore, several researchers have adopted the term “skills-builders” to describe students who participate in workforce training that does not necessarily lead to a community college credential (Bahr, 2014; Bahr & Booth, 2012; Booth & Bahr, 2013).

Community colleges have adapted to the needs of skills-builder students by working closely with employers to determine how to tailor content to the workplace, creating low-unit certificates, and building sets of “stackable” certificates that focus on discrete skill sets within an overall pathway.

This trend has been growing steadily for the last 30 years. According to Georgetown University’s Center on Education and the Workforce (Carnevale, Rose, & Hanson, 2012), 8 percent of post-secondary awards were certificates in 1980. By 2010, certificates accounted for nearly a quarter (22 percent) of awards. Certificates have become so popular that they are now the second most common higher education credential in the United States, behind bachelor’s degrees but ahead of associate’s degrees. Nationwide, most certificate programs (54 percent) are short-term, meaning a certificate can be earned within a year or less. The trend is even more pronounced in the California community college system, where two-thirds of credentials in CTE fields are short-term (Moore et al., 2012).

Coursework aimed at more experienced workers often is intermingled with content designed for those who are just starting out, as well as for students exploring a concept for personal enrichment—meaning that diverse student types tend to take similar

courses. For example, City College of San Francisco (CCSF) offers the state’s most comprehensive real estate training program, which includes an associate’s degree, a certificate, and courses that can transfer into the California State University system to fulfill requirements for a bachelor’s degree in fields like real estate or business. The program’s courses also align with two different state licenses and a federal licensure exam.

Students may enroll at CCSF to take pre-license courses that allow them to become a real estate broker or a real estate agent. These courses also draw workers who may need to build competencies for fields outside of sales or appraisals. According to Carol Jensen, the director of CCSF’s Real Estate



Education Center, the property management course might be attended by a security guard who works in large high-rise buildings, a landlord, and a municipal transit worker who wants to transfer to the city's real estate management department. Finally, people who are seeking to buy a home may take courses to become more informed consumers as they prepare for the largest single purchase—and debt burden—of their lives.

CTE course-takers are similarly diverse in other programs of study. Los Angeles Trade Technical College's construction program attracts a broad range of participants—many of whom are likely to leave before they obtain a community college credential; but they leave for different reasons, according to Joseph Guerrieri, Dean of Academic Affairs and Workforce Development. First, enrollment in the program is driven by the local job market. When jobs are scarce, many workers enroll in classes that will make them more competitive applicants. When hiring picks up, students begin to drop out. Second, the Los Angeles Department of Building and Safety offers a certificate considered essential for securing a welding job. Stu-

dents may take only the courses that they need to secure this high-value credential. Third, the college offers training for green construction techniques, which are intended to round out a broader set of competencies. For example, there is little employer demand for a certification in solar installation, but this is a valuable additional skill for working electricians. Fourth, many students start out in construction by learning skills on the job, such as installing dry wall or painting. They then may take a handful of courses to broaden their skills in fields such as heating, ventilation, and air conditioning (HVAC)

“Los Angeles Trade Technical College's construction program attracts **a broad range of participants**—many of whom are likely to leave before they obtain a community college credential.”

or plumbing. To be hired, these workers may simply need to demonstrate newly learned competencies on a job site, rather than present a postsecondary credential. Finally, class participants might be homeowners seeking carpentry or electrical skills to support home-improvement projects.

Supporting this variety of student types makes it difficult for programs to demonstrate success within

the conventional “completion” framework, which measures success by the attainment of a community college credential or transfer to a four-year college. For example, Los Angeles Trade Technical College is working to create stackable certificates that guide students to valuable course combinations and to capture the impact of the coursework by issuing a credential. Nevertheless, certificates are not given automatically. Students have to request them, and if they don’t value the credential, they are unlikely to complete the additional paperwork.

Certificate programs that require students to take a small number of units face other hurdles to inclusion in success metrics. For the purposes of accountability reporting, California community colleges are required to track only certificates of 18 or more units. Although colleges are allowed to voluntarily upload information on lower-level awards, many colleges elect not to do so, meaning that these successes are not included in official reports like the statewide Scorecard or the Salary Surfer, which posts information on the earnings gains of students who complete community college credentials. The Chancellor’s Office has worked to lower the threshold of units required for program approval, which has enabled some 12- or 18-unit certificates to be recognized, but programs that require less than 18 units are not forwarded for consideration. These issues, together with increasing requests for post-college outcomes by accrediting agencies, federal funders, and state agencies, have led some colleges to gather additional information to measure success, including whether students secure jobs, retain their employment, and experience earnings gains.

“A three-week course called “Train for Success” enables students to master ten discrete competencies that are required for work in both the petroleum industry and other local professions, such as agriculture.”



## MEASURING THE IMPACT OF COMMUNITY COLLEGE COURSEWORK

In addition to examining data collection efforts at individual colleges and state systems, a number of studies have examined the economic returns of short-term credentials in CTE by analyzing whether students see an increase in their earnings. The research shows mixed results. Some studies found minimal or no earnings gains (Jepsen, Troske, & Coomes, 2014; Lang & Weinstein, 2012; Dadgar & Weiss, 2012); others reported increases in earnings (Carnevale, Strohl, & Melton, 2012). One confounding factor in these analyses is that earnings gains typically are assessed by comparing the earnings of students who have a community college credential with the earnings of students who do not secure a certificate or degree, which assumes incorrectly that non-completing students are a homogeneous group.

Peter Riley Bahr (2014) sought to provide a more comprehensive analysis by studying simultaneously both the returns to credentials—the awards given—and the returns to credits—the courses taken. Bahr examined the records of 759,489 students who entered California community colleges for the first time between 2002–2006 and matched them to earnings data from the unemployment insurance earnings database, from six years prior to college entry through the final quarter of 2012 (see Table 1). He found that students experienced significant earnings increases after completing a postsecondary credential in any of a wide range of CTE programs, including associate’s degree, long-term certificate (more than 29 units), short-term certificate (6-29 units), or low-credit awards (less than six units—or about two classes).

Table 1.

### EARNINGS GAINS AT VARIOUS AWARD LEVELS

FIELD OF STUDY	LOW-CREDIT AWARD: LESS THAN 6 UNITS	SHORT-TERM CERTIFICATE: 6 - 29 UNITS	LONG-TERM CERTIFICATE: 30+ UNITS	ASSOCIATE'S DEGREE: 60+ UNITS
HEALTH	+8%	+11%	+39%	+106%
BUSINESS & MANAGEMENT	+12%	+9%	Not significant	+6%
PUBLIC & PROTECTIVE SERVICES	+13%	+32%	+27%	+11%
ENGINEERING & INDUSTRIAL TECHNOLOGY	Not significant	+11%	+11%	+12%
FAMILY & CONSUMER SCIENCES	Not significant	+9%	+6%	+3%
INFORMATION TECHNOLOGY	Too few awards	+9%	Not significant	+12%

Source: Bahr, 2014

Bahr also demonstrated only negligible differences between earnings gains for completers of community college credentials and non-completers who took similar coursework (though completion of a community college credential was a significant factor in earnings gains in some fields, such as health). In explaining this surprising finding, Bahr reasons that community college classes teach skills that are valuable in the labor market, but that many community college credentials have low signaling value to employers. In short, workers are able to translate the competencies that they master in college directly to their work or to earn a certification or license from a third party, both of which hold greater value in the workforce than a community college certificate or degree.

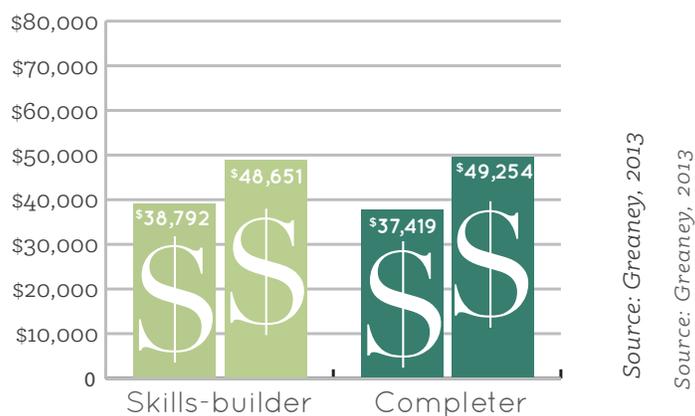
In line with Bahr’s analysis, research is beginning to show that third-party credentials may help to explain earnings gains in CTE fields. The Census Bureau (2014) found that third-party credentials are common among workers at all educational levels, and that they have a significant impact on incomes of workers who report having “some college” or an associate’s degree. California data are also available from the 2013 CTE Outcomes Survey. This study gathered information from 11,595 former community college students, including those who took nine or more vocational units and then stopped taking courses, as well as those who earned a CTE certificate or degree. Almost a third (31%) of these former students went on to earn an industry certification, state license, or journey status (Greaney, 2013).

The CTE Outcomes Survey also found that 35 percent of respondents were “skills-builders”—students who undertook workforce training but did not obtain an award or transfer—and these students had a mean earnings gain of 22 percent. Earnings of the skills-builder group were similar to earnings of those who completed a credential or transferred. Although the end result was similar, the skills-builder students had higher wages before beginning their studies and

saw a smaller percentage increase in earnings (see Figure 1). This pattern may have been a function of both age—skills-builders’ median age was 37—and experience. Twenty-seven percent of skills-builders had earned a bachelor’s degree or higher prior to enrolling in community college coursework.

Figure 1.

## PRE AND POST-COLLEGE WAGES BY COMPLETION STATUS



Other research points to the value of taking short sequences of courses, particularly for older students. Earlier research by Bahr (2013) assessed earnings gains for 204,309 first-time students who were highly successful in their coursework but did not obtain a community college credential or transfer to a four-year institution. About half of these students were skills-builders who enrolled in six or fewer units per semester and stayed for no more than four semesters. As with the CTE Outcomes Survey, the students that Bahr studied had an average age of 37. Bahr found that in 16 of the 24 CTE subfields in which skills-builders are found, students boosted their earnings significantly after a minimal investment of time and money. Students who took just six units—two courses—saw median earnings gains ranging from 2–66 percent, depending on the subject area. Bahr found even larger earnings gains for students who took additional credits. For example, earnings gains for students who took 12 units ranged from 3–131 percent, with a median of 8 percent.

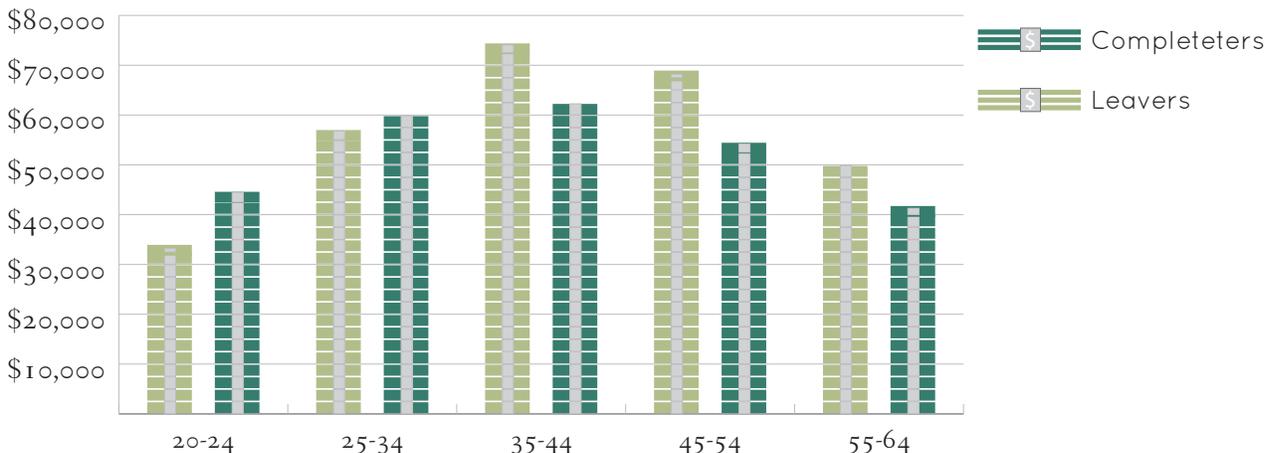
The California Community Colleges Chancellor’s Office investigated earnings gains for students who described their college goal in Fall 2010 as “update job skills” (Fuller, 2013). The study matched student-level records with the state’s unemployment insurance earnings data. Of the 67,800 students included in the study, about two-thirds (62 percent) took vocational courses, such as public safety, fire sciences, office technology, and child development. Median earnings for this group increased by nine percent, from \$49,800 to \$54,600. High starting earnings may have been a function of age and experience; the median age of these students was 38, and 33 percent had attended a four-year college prior to enrolling in community college. The study also looked at the issue of job retention within a field of study, finding that 42 percent of students in the study remained in the same industry and of those, 64 percent saw a positive earnings gain.

The Chancellor’s Office (Fuller, 2014) has also explored relative earnings gains of those who completed credentials (“completers”) and those who left without a credential and did not transfer to a four-year institution (“leavers”). In a matched comparison of roughly 68,000 students who either stopped enrolling or earned a credential in the California community college system between 2002 and 2007,

Fuller found that earnings outcomes for leavers were mixed, particularly when looking at particular demographic groups, genders, ages, programs of study, and economic regions. Overall, completers experienced larger increases in earnings than non-completers. However, income patterns were different for students aged 35 and older, students aged 25 or older taking ten units or less, and those who selected “personal development” or “update job skills” as their goals (see Figure 2). Furthermore, some fields (e.g., real estate, automotive technology, electronics and electronic technology, administration of justice) showed either equivalent or stronger earnings for leavers, particularly when looking at lower unit thresholds. In these cases, college participation appeared to be part of a steady increase in wages, which were higher both before and after taking college courses. For example, among students who took 10 or fewer units (about three classes or less), non-completing students entered college making \$70,000 a year and increased their earnings to \$75,000 after one year and \$80,000 after five years—a steady upward climb. In contrast, completers entered college making \$45,000 and increased their earnings to \$55,000 after one year and \$60,000 after five years—a bigger initial increase, but at a much lower income total.

Figure 2.

### MEDIAN WAGES OF COMPLETERS VS LEAVERS



Source: Fuller, 2014

Source: Fuller, 2014



**CASE STUDY: USING SHORT-TERM TRAINING TO BOOST EARNINGS OF DISADVANTAGED STUDENTS**

Taft College is located on the southwestern edge of California's San Joaquin Valley in a region dominated by the oil industry. In 1982, petroleum companies identified the need for a workforce that could meet federal requirements regarding safety and equipment management. To provide support for trainings that targeted this need, Taft partnered with nearby Bakersfield College to create a nonprofit called Westside Energy Services Training & Education Center (WESTEC). WESTEC then partnered with local industries to secure donations of equipment and supplies, and built a dedicated training facility. WESTEC has since expanded and now provides trainings in areas beyond petroleum technology, such as correctional and peace officer training.

To develop WESTEC’s Safety and Petroleum program, Taft faculty worked closely with industry representatives to determine key competencies for jobs in the petroleum sector as well as broader safety standards. This content was aligned with state and federal mandates from the Occupational Safety and Health Administration, for instance, and the International Association of Drilling Contractors certification. Content is offered in small chunks within intensive time-frames. This allows employers to get skilled workers in a timely fashion and ensures that students can quickly transition into living-wage jobs. For example, a three-week course called “Train for Success” enables students to master ten discrete competencies that are required by the petroleum job market and local industries like agriculture. This program emphasizes job training for low-skilled adults with limited educations, including homeless adults and former felons. After students finish the course, they receive a set of laminated cards called “passports” that are associated with each core competency. These cards are recognized by employers and certify that workers are ready for specific jobs or could be hired at higher salaries.

As the program evolved, Taft faculty elected to develop coursework that exceeded industry and federal requirements, so that students learn key skills to help them secure better employment opportunities—particularly once the physical toll of working on a rig requires them to find new work. The college ensured that courses on topics such as “well control” or “coil tubing” count toward a certificate in energy technology or an associate’s degree in health and safety. Giving college credit

also keeps tuition costs manageable and provides access to the Board of Governors’ fee waiver.

These benefits are particularly important because the program aims to reach students who are unemployed or working minimum-wage jobs. The only other petroleum and safety training provider in the area is a for-profit company that charges more than twice as much.

“There is still an urgent need to provide longer-term foundational training for traditional college-age students, but the concept of college needs to be expanded to also encompass the training needs of older workers.”

Participation in these programs is strong, drawing up to 32,000 students for short courses like Petroleum Orientation Safety and Confined Spaces, compared to 300 students in the full Petroleum Technology certificate program. Furthermore, the Safety and Petroleum program generates the strongest increase in employment outcomes of all community college programs in California. Students see an earnings boost of 11 percent after taking one credit, with a spike of 162 percent by the time they have taken 12 units (Bahr, 2014). Once they secure jobs as field technicians or working on a rig, these students can expect to make well over \$100,000 per year.



## DEFINING SUCCESS

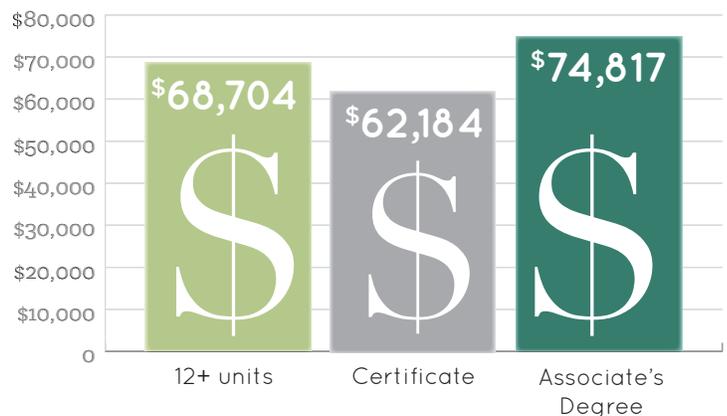
Most CTE programs are assessed using standard community college metrics such as term-to-term retention, completing a certain number of units, and completing degrees or certificates. However, the diversity of pathways and possible successful outcomes in CTE makes it difficult to apply these standard success metrics to all workforce students. A program (such as one focused on early childhood education) may teach the required skill sets in just six units or (as in the case of an aviation program) may require as many as 110 units. Colleges may also support different types of credentials to meet the needs of different industries, such as a quarter-unit certificate in rig safety for petroleum workers, a two-year certificate for sign language interpreters, an associate's degree for accountants, or a third-party credential for graphic designers.

Some disciplines, like information technology, may offer numerous credentialing options within the same program. Colleges might offer an associate's degree in computer software development that both helps students move into jobs requiring coding skills and prepares them for bachelor's degrees in computer science. The same college might also offer short-term certificates designed to

help IT professionals learn new skill sets, like game programming or mobile application development. Some of these short-term options might lead to a community college certificate, and other course clusters might enable workers to pass third-party exams like Cisco or Adobe certifications. All of these options may lead to earnings gains (see Figure 3). However, earnings gains may not be the only metric of success to consider. Some students may use coursework to secure a new job at a similar salary level, such as moving from networking to

Figure 3.  
**EARNINGS BY CREDITS AND CREDENTIALS**

### *Computer Software Development*



Source: Bahr, 2014

databases, and others may use courses to retain an existing job, as with an office worker keeping computer skills up-to-date.

To effectively measure CTE outcomes, college accountability needs to be predicated on the understanding that the modern workforce is no longer driven by a single academic credential that remains good for life. As the studies by Greaney, Fuller, and the Census Bureau show, a large number of students entering CTE programs already hold postsecondary or third-party credentials. This indicates that workers use community colleges to continue learning new skills throughout their careers. Many workers are shifting from jobs that no longer exist to professions that didn't exist when they first obtained their education. Increasingly, the credentials that employers seek for these jobs are issued by industry-sponsored entities rather than by academic institutions. As more employers expect job applicants to be ready for work with no additional training, the burden of professional development is falling on individuals. Also, as technology integrates into jobs ranging from auto repair to biotechnology, workers need ongoing training to keep their skills current. There is still an urgent need to provide longer-term foundational training for traditional college-aged students, but the concept of college needs to be expanded to also encompass the training needs of older workers.

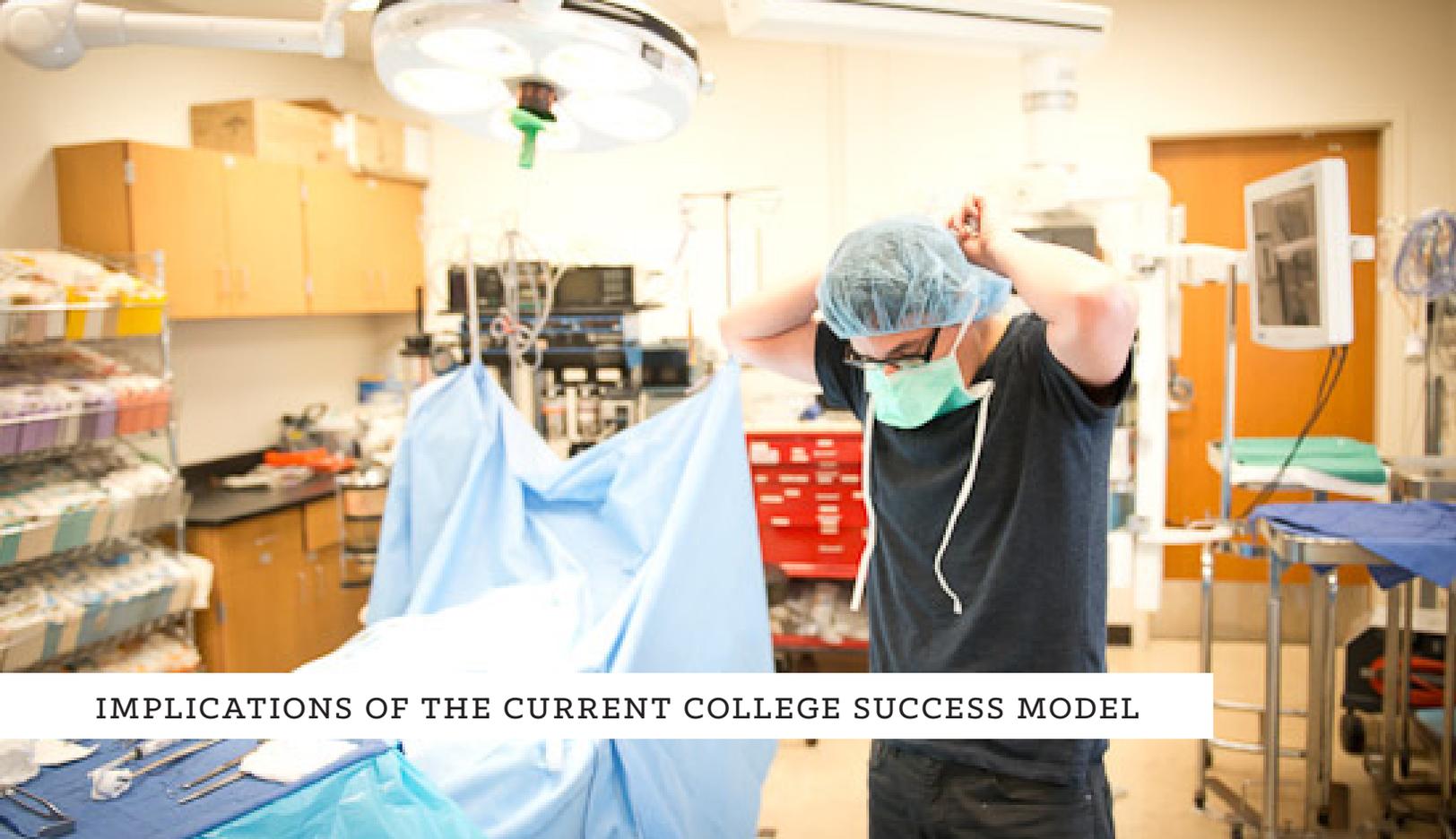
Therefore, success metrics for CTE should identify whether students have the needed skills to gain and retain meaningful employment. In addition to the traditional completion metrics, these new metrics could include:

- » Earnings gains
- » Employment and employment retention
- » Third-party certifications

New tools that have been developed by the California Community Colleges Chancellor's Office are

helping to bring these metrics to light. For example, the Salary Surfer shows aggregated earnings for students who obtained an associate's degree or Chancellor's Office–approved certificate and did not transfer to a four-year institution. The CTE LaunchBoard documents a broad range of outcomes for workforce students—both those who complete a college degree or certification and those who do not. The outcomes documented include graduation, transfer, employment, job retention, earnings gains, and third-party certifications, as well as labor market data, though the data sets are not yet comprehensive.

While these tools give the state a running start, they are still being integrated into success conversations happening at state and college levels, and data on positive outcomes for non-completing students are just becoming more broadly known. Some practitioners and policymakers have expressed interest in integrating skills-builder metrics into accountability tools, but discussions about how to do so are hampered by the difficulty of coming up with a simple definition of a skills-builder student. How can a student taking a course or two for self-enrichment be differentiated from a student seeking a promotion or a new career, particularly if these different students take the same courses? What is a realistic credit threshold to set for skills-builder course-taking, given the variability in courses needed across different disciplines and experience levels? Is it acceptable for colleges to take credit for third-party credentials that are earned through a combination of academic and on-the-job learning? Although discussions of this kind are common among CTE practitioners, such considerations often remain at the periphery of institutional and system-wide goal-setting efforts.



## IMPLICATIONS OF THE CURRENT COLLEGE SUCCESS MODEL

As educators and college leaders wrestle with these fundamental questions about how to structure and measure students' academic experiences, significant changes continue to ripple through higher education. In California, the Student Success Act has focused statewide efforts on assessing students' preparation for college-level coursework, providing orientation, and developing educational plans—with course scheduling and student registration priority pegged to these activities (Bahr et al., 2014). Meanwhile, as the state economic outlook improves, colleges are evaluating which programs to restore after the steep funding cuts of the past decade. Nationwide, the federal government has proposed a scorecard that could influence financial aid eligibility, driven by overall college completion rates, student earnings gains, and student debt loads. At the same time, a number of states are exploring performance-based funding. Decisions are being made now that will shape which kinds of programs are offered, whether students will get into courses, and how success is measured. There is a risk that the existing focus on preparing students for long-term certificates, degrees, and transfer will de-prioritize short-term training options and skills-builder students, thus exacerbating the skills gap.

In WestEd’s interviews with practitioners at colleges with strong skills-builder pathways, CTE directors and faculty noted that colleges opted to preserve low-cost, high-demand courses like remedial English and math over more expensive workforce training offerings. This choice negatively impacted CTE programs in several ways. Because there were fewer course sections offered, many programs were unable to meet student demand, affecting both traditional-aged and older students as well as employers. Furthermore, reductions in offerings often meant that students had to wait years to complete the sequence of courses that would lead to a credential.

“The differing priorities and needs of CTE students—and particularly skills-builders—need to be clearly understood to ensure that they are not inadvertently disadvantaged by new statewide policies and priorities.”

Recent budget cuts have also pitted college-readiness against career-readiness. It is important to ensure that students have a sufficient grasp of reading, writing, and algebra so that they have the option of pursuing a transfer pathway, and several CTE practitioners reported that their students lacked key English language, communications, and quantitative skills, impeding students’ ability to successfully engage in coursework or secure employment. However, CTE practitioners reported that their students were unlikely to take developmental education courses. Older students in particular, who were already struggling to fit workforce-related courses around their jobs, did not see a clear value in taking basic skills courses that were geared toward longer-term academic pathways. If they could get a better job or a promotion by taking a few classes, why would they invest several years in pre-collegiate

coursework? Because these courses are required for associate’s degrees and transfer, practitioners reported that students were less likely to pursue a completion goal, even when advised that they would have more career opportunities down the road.

The differing priorities and needs of CTE students—and particularly skills-builders—need to be clearly understood to ensure that they are not inadvertently disadvantaged by new statewide policies and priorities. For example, if students are required to take a college-readiness assessment test to receive enrollment priority, should developmental education offerings be designed to align with their career and college pathways? If educational plans are another critical milestone

for college participation, are counselors sufficiently well-versed in the diversity of CTE pathways to provide appropriate guidance? Should comprehensive educational

plans and orientation be required for students who intend to take only one or two courses? While many colleges are examining these policies, CTE practitioners report that skills-builders are expected to navigate complex exemptions to requirements, such as securing letters from their employers certifying that they need to take or retake a single course for their job. Skills-builder students are being treated as individual exceptions to college-going models, rather than as a sizable portion of community college students who are participating in pathways that have been intentionally developed to respond to the job market.



## OPPORTUNITIES FOR ACTION

Colleges will be better able to prioritize offerings that are of high value to both students and employers if they have access to data on more comprehensive workforce training outcomes—such as whether students secure an industry-recognized credential, improve their employment status, or increase their earnings—in addition to conventional completion metrics. Some entities have sought to expand success definitions in this direction, such as the California Student Aid Commission, the Accreditation Commission for Community and Junior Colleges, and the federal government through gainful employment reporting. These efforts provide foundations that colleges could build upon when developing appropriate policies for common long-term and short-term CTE pathways in their institutions. Here are examples of possible conversations and actions for various parties:

### Policymakers

- » Expand community college success metrics: Incorporate outcomes such as employment, earnings, and third-party credentials.
- » Improve access to data: Explore ways to automatically share information between state licensing agencies and community colleges, or to draw up agreements that provide access to earnings data from other states.

### College Leaders

- » Expand community college success metrics: Where available, assess outcomes like employment, earnings, and third-party credentials for accreditation, program review, and resource allocation.
- » Establish policies for skills-builder students: Set appropriate rules for low-unit CTE students, particularly regarding assessment, educational planning, and course repeatability.

### CTE Directors and Faculty

- » Examine local pathways: Determine where short-term course-taking fits into overall career pathways, how this relates to industry needs, and who benefits most from particular types of training. Share this information with college leaders to drive goal-setting, program development, and student advising.
- » Assess programs based on more comprehensive metrics: Once program pathways and likely outcomes are clear, ensure that program review and departmental improvement efforts are informed by data that include employment, earnings, and third-party certification outcomes, in addition to completion measures.

## FIND OUT MORE

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Visit the WestEd site at [www.wested.org/project/quantifying-non-completion-pathways-to-success](http://www.wested.org/project/quantifying-non-completion-pathways-to-success) for:

- » A downloadable version of this inquiry guide
- » Short videos and accompanying discussion guides that can be used to further this conversation among faculty, CTE directors, college leaders, and policymakers
- » Scholarly articles by Bahr on skills-builders and earnings gains

Access earlier work on course-taking patterns in California community colleges on the LearningWorks ([www.learningworksca.org/whats-completion-got-to-do-with-it-using-course-taking-behavior-to-understand-community-college-success/](http://www.learningworksca.org/whats-completion-got-to-do-with-it-using-course-taking-behavior-to-understand-community-college-success/)) and RP Group ([www.rpgroup.org/resources/completion-inquiry-guide-and-research-tools](http://www.rpgroup.org/resources/completion-inquiry-guide-and-research-tools)) websites. These resources include:

- » “The Missing Piece” inquiry guide and executive summary examine course-taking patterns and earnings gains for students who enroll in a small number of CTE courses rather than complete a degree or certificate.
- » The “What’s Completion Got to Do with It?” inquiry guide applies Bahr’s research to the current conversation on improving completion outcomes and includes a series of questions that could be used to discuss the research.
- » A recorded webinar summarizes Bahr’s research on course-taking patterns and offers practitioner perspectives on the value of short-term course-taking.
- » The “Segmentation Model for Assessing Course-Taking Patterns” document provides a simplified rule set to sort students into the classifications identified by Bahr. This document also includes sample discussion questions on how to use these results to build a deeper understanding of student course-taking behavior and its relationship to student success.

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