

A MISSING LINK FOR CALIFORNIA'S PATHWAYS MOVEMENT

CTE INSTRUCTIONAL STAFF

By Valerie Lundy-Wagner, PhD, Associate Research Director



JOBS FOR THE FUTURE

Recently, the State of California committed nearly one billion dollars to the development of career and technical education (CTE) pathways that lead to locally relevant, high-growth, high-demand careers. This investment represents a pivot from relatively disjointed approaches to CTE in high schools and community colleges, and reflects an aspiration to create a more integrated system that aligns the education systems with workforce needs while promoting equity.¹ Access to locally relevant CTE pathways both exposes students to the expectations of and supports their transition to college and work. These local opportunities are beneficial for all students, especially given that the majority of young people will stay close to home for postsecondary education or training (Mattern & Wyatt, 2009). And yet, despite the energy and aspirations related to CTE pathway development in California, attention to the instructional staff needed to design and implement them has been scant.²

School leaders attempting to implement CTE pathways report that numerous CTE instructor openings go unfilled each year, despite the growth in CTE student enrollment. Between 2012 and 2014, California K-12 schools realized a significant increase in secondary CTE enrollment (DataQuest,

2016). In the California community college system, the number of CTE students has declined in recent years (California Community College Chancellor's Office [CCCCO], 2015); however, these leaders also describe challenges in hiring CTE faculty as they attempt to address California's skills gap.³ The CTE

instructor shortage is perceived as a serious drag on the momentum secondary and postsecondary systems need for both the design and implementation of CTE courses and grade 9-14 CTE and career pathways. These grade 9-14 pathways integrate standards-based academics with a career-relevant, sequenced curriculum following industry-themes that are aligned to high-skill, high-wage, high-growth jobs, or emerging regional economic sectors.⁴

Between 2014 and 2015, the California Department of Education (CDE) funded 79 regional consortia through the California Career Pathways Trust (CCPT) initiative in two cohorts. These consortia, comprised of K-12 districts, county offices of education, community college districts, and workforce development stakeholders, were funded to develop CTE and career pathways intended to lead students to a postsecondary credential in a skilled, well-paying, high-growth field in their area. The following research and analysis draw on interview data from CCPT Round 1 consortium leaders and other relevant reports, databases, and artifacts that inform 9-14 CTE pathways development.

In this brief, we highlight three challenges to increasing the supply of CTE pathways instructional staff in California. First, credentialing requirements for secondary schools and community colleges are discrete and disconnected. Second, there are few

“Credentialing requirements for secondary schools and community colleges are discrete and disconnected.”

accelerated paths to building a CTE instructional staff pipeline. Third, there are few data publicly available for

understanding and matching the supply of and demand for CTE pathways staff. Finally, this brief notes key opportunities and considerations for state and local leaders as they pursue strategies for more systematically supporting 9-14 CTE instructional staff and pathways.

CTE CREDENTIALING REQUIREMENTS FOR GRADE 9-14 PATHWAYS

The differences in credentialing requirements for K-12 and community college CTE instructors can be an obstacle to creating 9-14 CTE pathways. Instructional staff are the human resources needed to both design

and implement grade 9-14 CTE pathways. And yet, CTE credentialing policies and procedures vary considerably across California high schools and the community colleges despite the curricular overlap between high schools and colleges that participate in concurrent or dual enrollment

“Clarifying CTE credentialing differences in the education systems has important consequences for meeting staff capacity required for implementing 9-14 CTE pathways.”

or course articulation. There is also staffing overlap between high schools and community colleges; instructional staff in either system may teach similar or even the same curriculum to both minors and adults. As such, clarifying CTE credentialing differences in the education systems has important consequences for meeting staff capacity required for implementing 9-14 CTE pathways.

There are two types of secondary CTE credentials in California: **preliminary** and **clear**.⁵ In terms of education and work experience, the **preliminary** designated CTE credential requires three years of sector-specific work experience and a high school diploma. The **clear** credential requires a valid preliminary CTE teaching credential, as well as completion of three additional courses (i.e., health education, the U.S. Constitution, and computer-based technology). The **preliminary** CTE teaching credential allows an instructor to teach elementary and secondary students, as well as adults in CTE courses in the CDE-approved industry sector subject(s) named on their credential for up to three years. The **clear** designated CTE teaching credential further permits staff to teach English learners in Specially Designated Academic Instruction Delivered in English and must be renewed every five years.⁶

First, community college CTE instructors have higher education requirements than secondary CTE credential holders.⁷ Individual colleges may add additional criteria for employment based on the community college district, specific institution and/or department criteria. Renewal of eligibility for CTE instruction in community colleges is also context specific (e.g., based on departmental and/or disciplinary need).

Table 1, below, summarizes select differences between secondary and community college CTE credential requirements. The data reveal three important observations.

Table 1: Summary of CA CTE Secondary and Community College Credential Requirements⁸

Credential Requirements	CA CTE Credentials		
	Secondary		Community College
	Preliminary	Clear	
Education			
High school diploma	Yes	Yes	No
Postsecondary credential	No	No	associate's/ bachelor's
U.S. Constitution	No	Yes	No
Health education	No	Yes	No
Computer-based technology	No	Yes	No
Personalized preparation including SDAIE	No	Yes	No
Work Experience/Verification			
Successful teaching with preliminary credential	No	2 years	No
Commission on Teacher Credentialing-approved program of personalized preparation	Yes	Yes	No
Sector-specific experience	3 years or 1000 hrs	3 years or 1000 hrs	6 years/2 years
Valid CA Preliminary CTE credential	No	Yes	No
Completed Live Scan receipt⁹	Yes	Yes	Yes
Completed application	Yes	Yes	Yes
Application processing fee	\$195	\$150	at college discretion
Recommendation by CTE program sponsor	Yes	Yes	Yes

Sources: California Commission on Teacher Credentialing (2016); California Community College Chancellor's Office (2016).

Note: Data presented on this table are for general illustrative purposes, and should be verified with the relevant organization(s).

First, there are higher education requirements for community college CTE instructors than for secondary CTE credential holders. Community college CTE instructors must have some postsecondary education, an associate's or bachelor's degree, whereas the preliminary CTE credential requires only a high school diploma.

Second, the data on Table 1 show that some requirements for teaching CTE in high schools and community colleges are similar. For example, CTE program sponsor recommendation and verification are needed in both education systems.¹⁰ These differences and similarities in credentialing requirements probably reflect the rational evolution of two distinct, even if sometimes loosely coupled, education systems sometimes serving common populations (e.g., adults, dual enrollees). They also suggest that there is an opportunity for K-12 and community college leaders to better align and streamline these requirements—working together to optimize the supply of qualified CTE teachers for students in grade 9-14 pathways.

Third, the time associated with obtaining CTE credentials may vary in consequential ways. For example, individuals seeking the secondary clear CTE credential are required to satisfy a United States Constitution, Health Education, and computer-based technology requirement above and beyond other education requirements. Completing these requirements could add at least two to three months to the application process, which can discourage applicants from obtaining the CTE credentials.

Building the CTE Instruction Pipeline

Increasing the supply of CTE instructional staff in California is a long-term process that may involve aligning credential requirements and building pathways that satisfy them. While there has been some attention to building education pathways via CCPT (Smith, 2015), only five of the 39 Round 1 consortia were developing pathways in the Education and Child Development sector. Yet, even if high school students did choose a

career pathway in CTE teaching, like others, they would be required to obtain adequate education and/or work experience to meet the CTE credential requirements.

In the meantime, K-12 districts and community colleges can expand the supply of available CTE instructors in two ways: enhance their recruitment efforts among the overlooked pool of potential CTE instructors (i.e., underemployed, unemployed or retired workers); and look for opportunities for existing CTE instructors to teach in both secondary and postsecondary settings, rather than just one or the other.

Both secondary and postsecondary CCPT leaders reported a reliance on two strategies for recruitment. High school CTE instructional staff needs are typically

“While respondents from both education sectors noted the potential value of industry partners in meeting CTE instructor demand, identifying individuals interested in teaching and sufficiently incentivizing them to attain credentials in a timely manner was a challenge.”

being addressed by credentialing existing teachers in one of two ways. Some schools are using variable-term waivers, while others are supporting completion of preliminary and then clear CTE credential

requirements with incentives (e.g., tuition remission or time off).¹¹ In community colleges, the CTE teaching shortfall is largely being addressed by focusing on existing faculty who are eligible or near eligible to teach in specific postsecondary CTE programs. While respondents from both education sectors noted the potential value of industry partners in meeting CTE instructor demand, they also reported that identifying individuals interested in teaching and sufficiently incentivizing them to attain credentials in a timely manner was a challenge.

There was virtually no mention of the potential for the unemployed, underemployed or retirees to fill CTE teaching positions.

Finally, there was only minimal recognition that for some courses, sectors, and pathways, CTE instructional staff could teach both high school and community college students.

Insufficient Data

Beyond credentialing requirement differences and recruitment challenges, lack of data on the

supply and demand for CTE instructional staff in California presents an additional systemic challenge for developing 9-14 CTE pathways. Namely, current policies and protocols make it difficult to quantify CTE instructional staff in terms of supply, demand, or the gap between them. While CDE collects data on the number of CTE high school instructors, the California Commission on Teacher Credentialing (CTC) produces complementary annual reports that describe teacher preparation program completions. According to CDE, during the 2014-2015 school year, there were about 1,600 full-time equivalent secondary CTE instructors in California teaching 229,839 CTE students in 13,373 CTE courses.¹² The most recent CTC report (Suckow, 2015) notes that 987 individuals were awarded Designated Subject CTE (high school) credentials in 2013-2014. However, the extent to which the 987 completers are filling instructional CTE staffing gaps that leaders described is not clear from existing data. Furthermore, while all those completers are eligible to teach CTE courses, only a subset teach CTE courses nested within pathways.

The CCCCO does not collect data on instructors teaching CTE courses or within CTE pathways across the 113-campus system. Thus, while education leaders in high schools and community colleges describe CTE instructional staff shortages, neither system provides publicly accessible data about the state, system, or local shortages that practitioners can use for local planning and recruitment. This lack of systematic data prevents fully characterizing the CTE instructional staff shortage, and hinders efforts to close what could be a growing gap, particularly in more rural regions where it is already difficult to recruit teachers and faculty.

“This lack of systematic data prevents fully characterizing the CTE instructional staff shortage, and hinders efforts to close what could be a growing gap, particularly in more rural regions where it is already difficult to recruit teachers and faculty.”

Considerations and Opportunities

Given the secondary teacher shortage in California that is exacerbated for specialized fields like CTE (Darling-Hammond et al., 2015; Suckow, 2015; Smith, 2015), and the organizational barriers facing CTE in high schools and the community college system (e.g., higher average program costs, and smaller governance representation), it is important for state and local leaders to consider practical opportunities

for increasing the supply of instructional staff for CTE pathways.

Monitor and understand the state's movement toward CTE pathways:

- Define and track distinctions between single CTE courses and CTE pathways in the secondary and community college contexts in order to develop standards for metrics and data collection across segments.
- Finalize and disseminate a crosswalk between CDE, CCCCCO, and the Workforce Investment Opportunity Act priority sectors and associated pathways to support consistency in CTE pathway development across the state and by region.

Examine ways to optimize CTE teacher credentialing requirements:

- Revisit the CTE credential requirements across systems (including the various waiver options) to assess potential (dis)advantages in seeking community college over secondary CTE credentials, the practical implications for CTE pathways, and opportunities for system and/or local alignment by region and/or sector.

Quantify and build the supply of qualified CTE teachers that matches demand:

- Encourage local leaders to devise a strategy to gauge the human resources from K-12, community colleges, and industry needed to design high-quality, locally relevant grade 9-14 CTE pathways.
- Assess the extent to which staff teaching articulated, dual and/or concurrent enrollment courses can serve as a mechanism for identifying CTE instructional staff who can teach high school and postsecondary students while supporting regional CTE pathway development.
- Enlist regionally focused staff (e.g., SB1070 Directors, Statewide Technical Assistance Providers, Sector Navigators, and Deputy Sector Navigators) to support recruitment of full- and part-time CTE instructional staff.
- Leverage CCPT, other regional pathways or CTE-related initiatives to collect data on CTE instructional staff capacity and needs at participating high schools and community colleges. (This will not fully capture the supply and demand for CTE instructional staff, but it does provide key

stakeholders with short-term information germane to closing the CTE instructional staff shortages.)

- Facilitate partnership with employers and regional workforce development stakeholders to strategize ways for identifying current workers, retirees, underemployed, and unemployed individuals who may be interested in and eligible (or near eligible) for pursuing a secondary or postsecondary CTE credential.

Concluding Thoughts

The State of California and local partners have committed to employing grade 9-14 CTE pathways as part of a strategy for more equitably improving attainment goals and meeting local labor market demand. Yet, according to education leaders, more attention must be paid to the CTE instructional staff needed to design and implement these pathways.

While acknowledging three reasons for the CTE instructional staff shortage, this brief also attempts to shift the dialogue about secondary CTE teacher shortfalls to one that focuses on CTE pathways and incorporates community colleges more explicitly. Although the data for fully characterizing the CTE instructional staff shortage for grade 9-14 CTE pathways are lacking, the brief also highlights an opportunity that course articulation and dual and concurrent enrollment provide: leveraging instructional staff who can teach both high school and community college CTE students. While there are shorter- and longer-term strategies that can help align credentialing requirements and better capture supply and demand for CTE instructional staff, it is clear that both education systems and industry/workforce development should play an active role in devising a more transparent and effective system.

Governor Brown's May 2016 Budget Revision is evidence of state-level support for addressing the teacher workforce problem in California. The proposal encourages postsecondary institutions and local K-12 education agencies to partner around developing four-year teacher credential programs as well as teacher recruitment.¹³ In addition, this budget revision opens the door for innovation around credentialing for CTE pathways. This is an opportunity for intentionality related to the role community colleges and public four-year institutions can and should have in the CTE pathways movement. Given CTE enrollment projections and that California's K-12 schools, community colleges, four-year institutions, and workforce development

partners are already at the table to develop locally relevant CTE pathways (in many locations via CCPT), it's time to acknowledge the missing link: CTE instructional staff.

ACKNOWLEDGMENTS

This research was made possible through generous support from the Stuart Foundation and the Noyce Foundation. The author would like to thank, in alphabetical order, Marty Alvarado, Mina Dagdar, Renee Faulkner, Annie Johnston, Hannah Smith, Joel Vargas, and Maureen White for their timely and thorough feedback.

ENDNOTES

¹ See Schwartz et al. (2011). *Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century*. Cambridge, MA: Harvard Graduate School of Education.

² It is important to note that there is no consistent definition of pathway in California across high schools and community colleges at the system level. And furthermore, while CDE has a list of 15 CTE industry sectors: <http://www.cde.ca.gov/ci/ct/sf/documents/ctecpwposter.pdf>, the CCCCO has approved 10 high-demand sectors and more than 150 programs of study that may qualify as CTE.

³ The CCCCO established Doing What Matters for Jobs and the Economy to help bridge the skills and jobs mismatch and prepare California's workforce for 21st-century careers. The goals are to supply in-demand skills for employers, create relevant career pathways and stackable credentials, promote student success, and get Californians into open jobs. For more information, see: <http://doingwhatmatters.cccco.edu>

⁴ The pathways description for CCPT can be found here: [http://www.cde.ca.gov/ci/ct/pt/Department of Education](http://www.cde.ca.gov/ci/ct/pt/Department%20of%20Education)

⁵ See <http://www.ctc.ca.gov/credentials/leaflets/cl888.pdf>.

⁶ Specially Designated Academic Instruction in English replaces the terminology for English as a second language (ESL). In 2015, there were 1,392,263 SDAIE students statewide.

⁷ While the CCCCO minimum qualifications note a Bachelor's degree and two years of experience (see: <http://extranet.cccco.edu/Divisions/AcademicAffairs/InstructionalProgramsandServiceUnit/MinimumQualifications.aspx>), the Board of Governors Task

Force on Workforce, Job Creation, and a Strong Economy Report and Recommendations mentions the former or an associate's degree and six years of experience (see: http://doingwhatmatters.cccco.edu/portals/6/docs/sw/BOG_TaskForce_Report_v12_web.pdf).

⁸ This table is simplified for illustration and data included should be cross-referenced with previously cited documents, reports, etc. Of particular note are community college CTE credentials data that are based on the minimum qualifications. Instructors seeking to teach CTE courses in the CCC system must meet minimum qualifications and additional requirements set forth by the college and the department.

⁹ The Live Scan receipt is a verification that fingerprints have been taken and fees have been paid, unless fingerprint clearance is already on file with the Commission as noted here: <http://www.ctc.ca.gov/credentials/leaflets/cl888.pdf>

¹⁰ Secondary CTE credentials require a program of advanced personalized preparation as determined by the program sponsor agency as noted here: <http://www.ctc.ca.gov/credentials/leaflets/cl888.pdf>.

¹¹ Variable-term waivers can be issued to individuals based on the request of an employer when a fully credentialed educator is not available for the opening. The CTC provides a Waiver Request Guidebook that describes the circumstances and eligibility for waivers: <http://www.ctc.ca.gov/credentials/manuals-handbooks/WaiverHandbook.pdf>.

¹² See <http://data1.cde.ca.gov/dataquest/>

¹³ See: <http://www.ebudget.ca.gov/FullBudgetSummary.pdf>

AUTHOR BIOGRAPHY

Valerie Lundy-Wagner is an associate research director at Jobs for the Future (JFF). She is co-leading an early implementation study of selected regions that are building career pathways in California and coaching sites seeking to enact systems change to support seamless K-14 pathways. Prior to joining JFF, Dr. Lundy-Wagner was a senior research associate at the Community College Research Center where she focused on applied and practical research that informed institutional and state-level strategies for supporting students from demographically, academically, and geographically diverse backgrounds. Dr. Lundy-Wagner earned her Bachelor of Science degree in civil & environmental engineering from UCLA, a master's degree in education from Stanford, and a PhD in higher education from the University of Pennsylvania.

REFERENCES

Blue Sky Consulting Group (2015). Funding Career and Technical Education (CTE) Programs at California Community Colleges. Sacramento, CA: California Community Colleges Task Force on Workforce Job Creation and a Strong Economy. Retrieved from: <http://doingwhatmatters.cccco.edu/portals/6/docs/SW/CTE%20Funding%20Report%20for%20CCCCO%20REVISED%2020150420.pdf>

California Community College Chancellor's Office (2015). Board of Governors Task Force on Workforce, Job Creation, and a Strong Economy: Report and Recommendations. Sacramento, CA. Retrieved from: http://doingwhatmatters.cccco.edu/portals/6/docs/sw/BOG_TaskForce_Report_v12_web.pdf

Darling-Hammond, L., Furger, R., Shields, P.M., & Sutchter, L. (2016). Addressing California's emerging teacher shortage: An analysis of sources and solutions. Palo Alto, CA: Learning Policy Institute. Retrieved from: http://learningpolicyinstitute.org/wp-content/uploads/2016/03/LPI-Report-AddressingCA_TeacherShortage.pdf

DataQuest (2016). Sacramento, CA: California Department of Education. <http://data1.cde.ca.gov/dataquest/>

Johnston, A., & Stern, D. (2015). Coursework for college & career pathways: Dual academic/CTE courses. Berkeley, CA: University of California, Berkeley, College & Career Academy Support Network. Retrieved from: http://casn.berkeley.edu/resource_files/CCASN_Brochure_WEB.pdf

Mattern, K., & Wyatt, J. (2009). Student choice of college: How far do students go for an education. Journal of College Admission, 203(18-29). Retrieved from: <http://files.eric.ed.gov/fulltext/EJ838811.pdf>

Smith, H. (2015). Pathways to careers . . . but not in Education: The CTE teacher shortage in California. Boston, MA: Jobs for the Future. Retrieved from: <http://www.jff.org/blog/2015/09/24/pathways-careersbut-not-education-cte-shortage-california>

Suckow, M.A. (2015). Annual Report Card on California Teacher Preparation Programs for the Academic Year 2013-2014-9as required by Title II of the Higher Education Act. Sacramento, CA: California Commission on Teacher Credentialing. Retrieved from: <http://www.ctc.ca.gov/reports/TitleII-2013-14-AnnualRpt.pdf>

JUNE 2016

Jobs for the Future works with our partners to design and drive the adoption of education and career pathways leading from college readiness to career advancement for those struggling to succeed in today's economy. Across the country, we work to improve the pathways leading from high school to college to family-supporting careers. Our work aligns education and training to ensure that employers have access to a skilled workforce.



JOBS FOR THE FUTURE

TEL 617.728.4446 FAX 617.728.4857 info@jff.org
88 Broad Street, 8th Floor, Boston, MA 02110 (HQ)
122 C Street, NW, Suite 650, Washington, DC 20001
505 14th Street, Suite 900, Oakland, CA 94612

WWW.JFF.ORG

