Background Paper:

Structured Career Pathways and Student Support

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Prepared for:

Discussion Category:

1. Workforce Data & Outcomes
2. Curriculum & Instructors
3. Structured Career Pathways & Student Support
4. Funding
5. Regional Coordination
Introduction: Understanding Career Pathways

The changing nature of California’s workforce presents several problems, considering that only one third of workers today have “some college.” Economic forecasts point to an increasing demand for skilled workers by the state’s employers. California’s Employment Development Department estimates that by 2020, employment in the state will have grown by 16% or approximately 2.6 million new jobs. In many occupations, the demand for college-educated workers exceeds the number of current workers with a college degree, with a gap as large 40% (Bidwell, 2014). The Public Policy Institute of California found that if current trends continue, California will likely face a shortage of workers with some post-secondary education by 2025, thus creating a future gap among “some college” educated workers (i.e., those who earn associate degrees or occupational credentials, drop out of college, or transfer but fail to complete a degree) as high as 1.5 million (Bohn, 2014). This mismatch indicates a need to better align all levels of education to where the jobs are.

Future jobs in California will require most employees to have training beyond high school. Improving access to postsecondary training and creating conditions that allow students to complete their education will be critical for California to increase its employable labor pool. Given the high school counselor-to-student ratio of 1 to 800-1000, students are unlikely to receive the level of counseling necessary to make good choices in identifying career goals while in high school as well as educational programs to pursue in college. The decimation of career technical education (CTE) programs in many high schools and colleges due to the lack of priority placed on CTE has also created a situation where students that could be entering their educational pipeline in high school may have to wait until college to do so.

Students can benefit from learning about options for college and career education early. If, for example, students were exposed to these options early in high school or in some cases even in middle school, they could move into career pathways and begin their college careers while still in high school. By identifying a career pathway and participating in activities that either prepare them for college-level study or begin their college career while in high school via dual or concurrent enrollment, students who have a sense of their future direction can develop a clear vision of their goals and make the most of all available educational opportunities. Career pathways may be the vehicle for ensuring that California’s future needs for skilled workers are met. Thus, California needs a statewide coordinated system to create coherent career pathways to serve students moving from high school to community colleges and beyond.

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The term “career pathway” requires definition and explanation. Career pathways are closely related to “programs of study” as defined in legislation. The 2006 reauthorization of Perkins legislation requires local recipients of funds to offer at least one “program of study” as an essential aspect of their CTE offerings. A program of study is a multiyear sequence of courses, similar to a well-defined career pathway, in a career and technical content area. This sequence of courses has the following attributes:

- Must include academic and CTE content in a non-duplicative progression of courses,
- Must combine secondary and postsecondary program elements,
- May allow for dual or concurrent enrollment in a postsecondary program, and
- Must lead to an industry-recognized credential or certificate at the postsecondary level or to an associate’s or bachelor’s degree.

Programs of study can be thought of as career pathways intended to move secondary students toward a postsecondary credential or the baccalaureate level. A program of study can be structured in different ways—e.g., as a component of a career cluster, a career academy, or a small learning community—and can have multiple entry points, including opportunities for adult learners.

California needs schools and colleges to work together as a coordinated system—rather than as individual high schools or colleges—to support faculty in creating coherent career pathways to serve students moving from high school to community colleges and beyond. The linkages between the segments must be explicit, supported, and maintained. Curriculum and industry are dynamic, and therefore any system for maintaining connections must have an integrated review and revision component.

In the last ten years, the federal Tech Prep program funding that had supported such efforts has been dismantled, with the state providing some resources to maintain CTE programs. However, funding has been unpredictable, with almost no consideration for integrating new efforts with existing investments. With the reinstatement of Proposition 98 dollars under SB 70 (Scott, 2005), California continued to fund the Tech Prep program under the title of Transition Coordinators for several years. Through the SB 70 funding, competitive grants were awarded to state-level projects which addressed local efforts to serve students from high school through community college (i.e., Statewide Career Pathways, Career Café), as well as some federal programs that support career pathways such as the Trade Adjustment Assistance Community College and Career Training (TAACCCT) and the Carl Perkins Act.

**Support for Career Pathways Development**

High schools are working to create pathways within their own schools districts but are hampered by a lack of consistency in defining the components that constitute a career

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pathway. However, the legislature and industry partners are applying the same pressure to K-12 districts as community colleges by requiring career pathways linked to industry work. Thus, many nonprofit organizations such as the James Irvine Foundation⁴, National Academy Foundation⁵, and the Linked Learning Alliance⁶ are providing districts with a level of support in development of career pathways regionally unparalleled in recent history. Jobs for the Future⁷, Career Ladders⁸, and ConnectEd California⁹ were established to assist with the development of pathways.

ConnectEd California and the Linked Learning Alliance have been very active infusing support to districts in the midst of the linked learning reform movement. These organizations focus on a specific model in career pathway development known as linked learning, which is an approach that integrates rigorous academics with career-based learning and real world workplace experiences. Linked learning has the potential to ignite high school students’ passions by creating meaningful learning experiences through career-oriented pathways in fields such as engineering, health care, performing arts, law, and more. Students progress in a pathway as a cohort and are connected to industry through a myriad of work based-learning experiences. Each linked learning pathway is grounded in a set of four guiding principles:

1. Rigorous academics that prepare students for success in California’s community colleges and universities, as well as in apprenticeships and other postsecondary programs.
2. Career-based learning in the classroom that delivers concrete knowledge and skills through a cluster of three or more courses, emphasizing the practical application of academic learning and preparing students for high-skill, high-wage employment.
3. Work-based learning in real-world workplaces via job shadowing, apprenticeships, internships, and professional skill-building opportunities.
4. Personalized support services that include counseling and supplemental instruction in reading, writing, and math to help students master the rigorous academic and professional skills necessary for success in college and career.

Many high schools have opted to make linked learning all-inclusive, meaning that every student is in a cohorted pathway with a theme. Others offer a linked learning pathway alongside other options such as a California Partnership Academy, a high school reform movement focused on smaller learning communities with a career theme¹⁰, as well as the traditional career pathways as defined previously.

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⁴ https://www.irvine.org/
⁵ http://naf.org/
⁶ http://linkedlearning.org/
⁷ http://www.jff.org/
⁸ http://www.careerladdersproject.org/
⁹ http://www.connectedcalifornia.org/
¹⁰ http://www.cde.ca.gov/ci/gs/hs/cpagen.asp
The Career Ladders Project consults and partners with community colleges throughout California to help implement educational and career pathways to ensure that disadvantaged youth and adults receive education and training that will meet the demands of employers in the 21st century and lead them to high-wage, high-demand careers. To reach this goal, the Career Ladders Project provides strategic advice and technical assistance to community colleges and their workforce partners on building career pathways and bridge programs. They pursue policy initiatives and make research-based recommendations regarding career ladders from a systems approach. The project supports the development of Career Advancement Academies (CAA) that establish pipelines to college and high wage careers for low-income young adults who face academic and personal barriers to post-secondary education and employment. CAAs improve foundational skills in reading, writing, and mathematics while enrolling students in career technical training programs that lead to careers or higher education opportunities.

CAAs are similar to the format of the Linked Learning model in that they provide CTE counseling, cohorted learning, integrated academics, strong student support, and ties to industry. However, CAAs are focused on adults 18-30 that are seeking workplace skills in disciplines that are clearly occupational. Students are in lock-step pathways that begin after high school. Although somewhat restrictive, this model is useful because it speaks to the needs of students to have some college and skill training. These students are able to succeed in their academic core because of the way that the faculty have integrated the content to the CAA theme. This structured environment ensures students’ success and completion. According to the Career Ladders Project, most CAAs see a success rate of 90%12, meaning that 90% of their graduates are immediately employed upon graduation or continue into further higher education to attain an advanced degree.

National Academy Foundation (NAF) is a national network that has been invested in the creation of career pathway academies for over 30 years. Similar to Linked Learning, NAF provides district support for the creation of cohorted academies in high schools. Teacher teams participate in a year of planning to establish fidelity to the NAF Model prior to launching the academy. The NAF model is built around four essential elements of practice:

- Academy Development and Structure: The NAF academy structure promotes admission that is open to all students, is designed with small classes, and allows for teacher collaboration across subject areas.
- Advisory Board: Teachers and academy directors rely on advisory boards, made up of local business, higher education, and community leaders, to provide current industry context and to secure funding, volunteers, and internships.
- Curriculum and Instruction: NAF curricula are created in partnership with industry professionals and designed around projects that help students make connections across disciplines that are clearly occupational.


subject areas, acquire valuable workplace skills, and see their education as a step toward long-term career options.

- Work-based Learning, including Internships: Academy students participate in a series of work-based learning activities, culminating in compensated internships, designed to provide context and career exposure and build their professional experience and networks.

The infusion of funds through the California Career Pathways Trust (CCPT), created in July 2014, provides the opportunity for California to make significant progress in moving career technical education forward to meet the needs of California’s workforce. One-time competitive grants totaling up to $250 million are available to school districts, county superintendents of schools, direct-funded charter schools, regional occupational centers or programs operated by a joint powers authority, and community college districts. CCPT grants are designed to accomplish the following goals:

- Provide specialists in work-based learning to develop or enhance a locally defined career pathways program that connects school districts, county superintendents of schools, charter schools, and community colleges with business entities.
- Create collaborative regional partnerships with business entities, community organizations, and local institutions of postsecondary education.
- Provide standards-based academics with a career-relevant, sequenced curriculum following industry-themed pathways aligned to high-need, high-growth, or emerging regional economic sectors.
- Establish articulated pathways to postsecondary education aligned with regional economies.
- Build upon or leverage any of the following:
  - Existing structures, requirements, and resources of the Perkins, California Partnership Academies, and regional occupational programs.
  - Matching resources and in-kind contributions from public, private, and philanthropic sources.
  - The California Community Colleges Economic and Workforce Development Program and its sector strategies and deputy sector navigators.
  - Participation in the local California Community Colleges Skills Panel.

**Statewide Career Pathways Project**

The Academic Senate for California Community Colleges (ASCCC) developed the Statewide Career Pathways (SCP) project through a grant funded by SB 70 (Scott, 2005) and awarded through the CCC Chancellor’s Office. The focus of SCP was to create connections for CTE faculty at both high schools and community colleges who were engaged in common struggles, such as a lack of understanding surrounding the formation of articulation agreements, policies, and practices as well as the use of effective practices that existed statewide for these efforts. CTE faculty of both segments embraced the common metrics that SCP provided: articulation
templates, counseling resources, programs of study, CTE awareness, and guidelines and criteria for effective articulation. With this focus, SCP continues to provide tools to ease the transition for students and facilitate faculty relationships across educational segments. However, with the decreasing number of CTE Transitions personnel\(^\text{13}\) on college campuses, creating a community of practice for these college career pathways champions has become increasingly difficult. The recent Regional College Conversations, held to inform the Board of Governors’ Taskforce on Workforce, Job Creation, and a Strong Economy, identified the need for campus hubs to provide student support including career exploration, CTE pathway, education planning, and coordination of work-based learning opportunities for CTE students.

Recognizing that establishing articulation agreements was the start of a process that ultimately would result in the awarding of credit to students and that colleges needed assistance in achieving this goal, the ASCCC, through the SCP Project, developed two papers that were adopted by delegates from all 112 California community colleges: *Alternative Methods for the Awarding of College Credit: Credit by Examination for Articulated High School Courses*\(^\text{14}\) (2013) and *Awarding Credit Where Credit is Due: Effective Practices for the Implementation of Credit by Exam* \(^\text{15}\) (2014). Each paper offered solutions and effective practices regarding appropriate implementation processes for awarding credit by examination, including credit for articulated high school courses. In support of SCP, the ASCCC also passed numerous resolutions focused on changing practices that interfere with maximizing the effectiveness of high school to CCC pathways. For example, Resolution 09.02 F13\(^\text{16}\), “Modify Title 5 Language to Include Credit by Examination Processes into §55051 Articulation of High School Courses to Simplify the Awarding of Credit for Articulated High School Courses,” sought to change language in regulation to create a clear interpretation of articulation and credit by examination for articulated credit. These resolutions were a response to requests from faculty statewide for assistance from the ASCCC in addressing these issues. Subsequently, ASCCC worked with faculty in local and regional collaboratives to draft Title 5 language for consideration by the System Advisory Committee on Curriculum. In this fashion, SCP continues to work in consultation with collaboratives, engaging when needed and providing resources as appropriate.

As a project of the ASCCC, SCP benefited from ASCCC resources to promote its work based on the highly effective ability of the ASCCC to bring faculty from both segments together in cooperative and collegial endeavors. No other organization can show a similar history of success in promoting faculty engagement. For example, SCP held regional professional development workshops for high school and college faculty and administrators to come

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\(^{13}\) CTE Transitions is funded through the Carl D. Perkins Career and Technical Education Improvement ACT of 2006 (Perkins IV) using the option of a “10% Reserve” set-aside from Title I, Part C Funding. For more information see: http://extranet.cccco.edu/Divisions/WorkforceandEconDev/CareerEducationPractices/PerkinsIV/CTETransitions.aspx

\(^{14}\) http://www.asccc.org/sites/default/files/AlternativeMethodsForAwardingOfCollegeCredit.pdf

\(^{15}\) http://www.asccc.org/sites/default/files/Awarding%20Credit%20Where%20Credit%20Is%20Due.pdf

\(^{16}\) http://www.asccc.org/resolutions/modify-title-5-language-include-credit-examination-processes-%2A755051-articulation-high
together to create pathways from high school to college. In support of these workshops, when collaboratives, colleges, or high school partners have requested assistance, SCP has provided it. Often this support would take the form of collective troubleshooting and group facilitation to solve a common problem. Regional and local collaboratives have continued to embrace opportunities to learn and work as a team. This team approach is fundamental to the success of any pathways initiative.

Pathways and Model Curriculum

The 2010 Senate Bill 1440 (Padilla) called for CCCs to establish transfer pathways by developing Transfer Model Curriculum to use as a framework for Associate Degrees for Transfer (ADTs) that provided specific benefits to students including guaranteed admission to the CSU system. ADTs are based upon the Course Identification Numbering System (C-ID), a statewide system of both course-to-course and program-level articulation that began in 2006. C-ID is a faculty-driven system that was initially developed to assign identifying designations (C-ID numbers) to the most common transfer courses, thereby addressing the need for “common course numbers” by providing a mechanism to identify comparable courses.

Traditionally, C-ID numbers identify lower-division transferable courses commonly articulated between the California Community Colleges and universities, including the University of California, the California State University, and many of California’s independent colleges and universities. A C-ID number is a designation that aligns a course to a specific course “descriptor” that is developed by discipline experts from throughout the CCC and university systems. Once a descriptor has undergone statewide vetting by discipline faculty, it is finalized and becomes the basis for the C-ID articulation system. Individual colleges submit their courses to be compared by faculty discipline experts to the minimum requirements set by these descriptors. Any community college course that bears a C-ID designation conveys that faculty have determined that it meets the published course content, rigor, and course objectives. Because submission of a course to C-ID by a CCC indicates acceptance of any course from any college bearing the same C-ID number, C-ID is also a means of establishing articulation within the community college system. In addition, the C-ID descriptor also provides information for ongoing curriculum development and revision of lower division courses.

C-ID began by developing descriptors for courses in 20 disciplines that are among those in which students most frequently transfer. In response to Senate Bill 1440, the next area of focus has been on the courses in TMCs, the Transfer Model Curricula. TMCs are again developed by discipline faculty experts and define the major coursework needed to fulfill the requirements for the ADTs and fulfill CSU admission requirements in the major. Individual community colleges then develop their local ADTs within the parameters set by the TMC for a specific discipline, thus establishing a pathway of coursework for guaranteed transfer within a given program.
As a result of the positive outcomes of establishing TMCs, faculty determined that a similar process may be beneficial for some CTE disciplines. Currently, faculty are working on developing statewide model curriculum in CTE disciplines that may not typically include a transfer expectation thereby creating a similar pathway for students wishing to complete degrees and certificates in middle skills jobs such as Pest Control Advisor, Paramedic, Automotive Technician, etc. SCP has worked with regional representatives to identify the disciplines that are most in need of statewide model curricula and industry representatives inform the work by identifying certification opportunities that would benefit from model curriculum development.

Using the C-ID structure, C-ID and SCP are convening faculty to create model curricula in other certificate and degree areas. This effort is a response to the call from the field to provide multiple paths to college and career versus those that are solely transfer in nature. Early in the implementation of SB 1440, faculty leadership realized that two significant transfer majors (and CTE majors) could not be incorporated into the ADT process due to the unit limits imposed by the legislation and, potentially, the admissions guarantees. Both nursing and engineering do not fit into the 60-unit limit imposed by SB 1440 at the CCC level and commonly exceed 120 units overall. In addition, elements of the nursing curriculum constrain the number of students that can be accommodated. The benefits of descriptors for engineering courses and for model curriculum for both disciplines, however, is apparent. Consequently, faculty were convened to develop descriptors in engineering and model curriculum for both engineering and nursing. Recently, this work was deemed complete and implementation is in progress. Both model curricula are anticipated to be appropriately recognized as major preparation by the universities, which will simplify the transfer process. Other model curricula in process are Addiction Studies, Agriculture, Automotive Technology, Biotechnology, Commercial Music, and Emergency Medical Services. Work on Information Technology Model Curriculum is already completed, and this discipline is expected to be the first fully implemented model curriculum. In each of these areas, industry is involved in the development of the curriculum to ensure its alignment to existing certifications or industry trends. Each of these disciplines are also areas that represent gaps in the labor market.

The potential for C-ID and model curricula to facilitate curriculum development is great. The existing Transfer Model Curricula have dramatically both increased the number of degree opportunities available to students and impacted the number of degrees awarded. The development of descriptors and model curricula can promote appropriate curricular comparability in existing disciplines and provide a means of expanding the introduction of new curriculum.

**The SCP Counseling Toolkit**

Recently, SCP launched the High School Counseling Tool Kit – an online tool that allows high school counselors to create a Grade 9-14 program of study for students in any of the 54 career
pathways as outlined by the California Department of Education. Based upon approved Transfer Model Curriculum (TMC), programs of study in ADTs provide information on the actual courses students can take to efficiently transfer to CSU or UC in the desired major. Thirty templates for ADT majors are currently included in the toolkit, with more being added regularly. Likewise, 42 non-transfer programs of study have been created for each of the California Department of Education approved career pathways. In all, 72 programs of study have been developed, with at least one option for each career pathway. This resource is by far the most comprehensive and customizable program of study tool available. Created in response to the needs of high school counselors, whose main concern was their inability to truly career counsel students given the student to counselor ratio of 1 – 1000, the toolkit is an invaluable resource for high school counselors whom are largely under-informed regarding career pathways.

What makes the toolkit environment exceptional is the connection to real time information via the C-ID database connection. Given the C-ID project’s descriptor-based articulation mechanism, the toolkit is able to provide course numbers for any transfer degree at any college in the state. Efforts are currently underway to include adding statewide model curriculum in non-transfer majors, such as Advanced Manufacturing and Biotechnology. Similar to TMC templates, these model curricula would allow for the tool to provide 9-14 plan to any college in any certificate, degree, or transfer major.

Another positive outcome of the counseling toolkit is the information that is provided for parents. Once a high school counselor finishes counseling the student, an advisory sheet can be printed for the student to take home. This advisory sheet shares with parents the options available to the student if he or she completes the pathway, which includes options if the student obtains a high school diploma, certificate, associate degree, bachelor’s degree, master’s degree, or Ph.D. It also provides parents with opportunities for dual or concurrent enrollment, extracurricular activities, and other opportunities for high school students to expand their educational experience.

**Regional Theme 1: Structured Career Pathways**

Develop strategies and structured industry-informed pathways that are regionally aligned so that high school students can more seamlessly transition to community college CTE certificates and/or transfer degrees; develop CTE model curriculum (e.g., SB1440); extend model curriculum into high schools to enable dual enrollment and CTE pathways between high schools and community colleges.
Summary of the Need
In a March 2013 report, Shulock and Moore identified three barriers to pathways articulation between high schools and community colleges (Shulock & Moore, 2013\(^\text{17}\)). These barriers are

1. K-14 CTE Pathway Development Structured as a non-core mission;
2. Insufficient Focus on Programs of Study; and
3. Variability in College Policies Raises Equity Issues for Students

Furthermore, an additional barrier was identified in how to sustain and evaluate pathways when these programs are funded by competitive and short-term grants.

The national transition of funds from local to regional perspectives has shifted funding toward an over-reliance on competitive grant based funding. The change in focus from local to regional has led to disinvestment in state-level coordination even though many successful efforts are already in place. This change in focus has created an environment where no real coordination of the funding statewide occurs.

Enhancing Structured Pathways
In order for change to occur, the above four barriers need to be addressed on a statewide level. Pathways need to be intentional and well-coordinated to improve student movement from high school to community college. Highly sophisticated pathway efforts, like C-ID Model Curricula and Statewide Career Pathways Programs of Study, take student portability to the state level while also integrating broad stakeholder buy-in to the pathway design.

Conversations with career pathway experts in California and research in this area reveal an overarching need to develop coordinated statewide efforts to promote the development of career pathways from high school to community colleges. A statewide policy conversation that will result in smoother articulation and credit by exam processes for high school students needs to occur in order to increase the number of high school students receiving college credit. In the American Association of Community Colleges brief report *Rebalancing the Mission: The Community College Completion Challenge* (2010\(^\text{18}\)), Mullin recognized that high school students who earn college credit while in high school are more likely to enroll and persist in a postsecondary education institution.

Senate Bill 1070 (Steinberg, 2010) mandated that grantors work to fix problems preventing high school students from moving forward in their career pathway areas and to identify policy and practice changes to eliminate barriers. While individual grants fund local or regional activities, the grantees have expressed a need to develop statewide resources that will promote best


practices and clarify potential areas of misinterpretation related to articulation and dual or concurrent enrollment, the residency requirement, and the regulatory term "in good standing."
Locally, the career pathway experts have had difficulty influencing policy conversations on these barriers. However, statewide engagement of faculty might address some of these concerns.

Additionally, career pathways experts need to have a venue to bring forward issues that require clarification, modification, or resolution. Creating a community of practice where faculty can share the best and worst practices as well as problem solve with their peers and all grant recipients could provide greater opportunity to influence statewide change.

Requests for pathway and model curriculum development can best be addressed through the SCP and C-ID systems that are already in place. These systems allow community college faculty discipline experts to work with both the K-12 faculty and counselors and with industry in creating and improving resources to help prepare students for both the workforce and transfer. Enhanced funding for SCP and C-ID under the leadership of the ASCCC would enable these systems to further build on their already successful structures and serve the needs of both students and industry more fully.

**Regional Theme 2: Student Support**

*Create campus hubs to provide student support including career exploration, CTE pathway and education planning, and coordination of work-based learning opportunities for CTE students.*

**Summary of the Need**
Many in California recognize the need to address the lack of support for a student’s movement across a structured career pathway. The influx of CCPT funding identified the void that exists on college campuses. Though the funding is intended to strengthen career pathways across consortia, it has instead highlighted the lack of infrastructure that exists on college campuses to support students in their efforts related to career technical education. Anecdotally, many colleges have simply transitioned all of their articulation agreements to dual enrollment. Though these efforts may be well-intentioned, they often take place with little consultation with the counselors and support staff as to the capacity to manage the effort. This practice has presented challenges where 50 or more agreements are in place, as an example. The question becomes whether a college has the capacity to sustain these dual enrollment agreements.

Central to this theme are three points of specific necessity:
1. Coordinator to support CTE Transitions-articulation and credit by examination, dual enrollment, concurrent enrollment
2. Designated career technical education counselor and educational advisors for educational planning
3. Work-based learning support for student attainment of internships, job shadow, mentorships, etc.

**CTE Transitions Coordination**

With the dismantling of federal Tech Prep program funding and the subsequent allocation of state resources to maintain CTE programs mentioned previously, local colleges have been challenged to maintain existing high school to CCC relationships and agreements. Although California continued to fund the Tech Prep program under the title of Transition Coordinators for several years, this change in structure had dire consequences for the continuity of existing articulation and dual enrollment partnerships and provided little hope in supporting additional future partnerships for others. Furthermore, these funding changes resulted in the loss of the Tech Prep/CTE Transitions Coordinator on many campuses. In a recent breakout session at the Educating for Careers Conference – a conference attended by nearly 3,000 CTE administrators, teacher, and counselors annually—a representative from the California Department of Education stated, “articulation is dead.” This reflection of the attitudes prevalent on college campuses statewide perfectly illustrates the need for a campus hub to support student movement across a structured career pathway.

The deficiencies created by the loss of Tech Prep funding are easy to identify because they are tangible: fewer units articulated, fewer students with units on transcripts via credit by examination, fewer students enrolled in a dual enrollment course. Less tangible is the greater deficiency: the weakening of faculty relationships across segments. In the past, Tech Prep was known for fostering consortia to serve CTE students; it is now barely existent in some college environments.

**Designated CTE Counselors**

According to the Academic Senate paper *The Role of Counseling Faculty*[^19], counseling faculty are professionally trained to diagnose the difficulties students face in pursuing and achieving their educational goals, to prescribe solutions for those difficulties, and to support students as they inch or stride toward success.

Programs that have received grant funding seized the opportunity to provide a designated “CTE Counselor” for students engaged in rigorous and structured programs such as engineering, health careers majors, and other industry-aligned programs. These counselors have been critical to the persistence and success of those students, as they are intimately aware of the unique nature of the course requirements and are many times involved in conversations with their articulated CSU or UC.

At the three faculty regional conversations held to gather information to inform the Board of Governors’ Task Force for Workforce, Jobs, and a Strong Economy, participants felt that dedicated counselors for career technical education or at a minimum counselors who were

[^19]: http://www.asccc.org/sites/default/files/CounselingS12_0.pdf
informed about career technical education programs and career opportunities would benefit both students and CTE programs.

Governor Jerry Brown signed into law the Student Success Act of 201220, the legislative cornerstone of a California Community Colleges reform initiative aimed at improving educational outcomes for students and better preparing the workforce needed for California’s changing economy. The goal was to help more California community college students reach their goal of earning a degree, certificate, career advancement or transferring to a four-year institution. In January 2012, the Board of Governors adopted the 22 recommendations of the Student Success Task Force. Recommendation Number 2 identified the need to Strengthen Support for Entering Students and included the following goals:

1. Develop and implement common centralized diagnostic assessments,
2. Require students to participate in diagnostic assessment, orientation and the development of an educational plan,
3. Develop and use technology applications to better guide students in educational processes,
4. Require students showing a lack of college readiness to participate in support resources, and
5. Require students to declare a program of study early in their academic careers.

All of these recommendations are aligned to the need to create a campus hub for student support and to provide all students with the advisement necessary for their success.

Work Based Learning Support
The unique nature of career technical education dictates a greater connection to industry than that of non-CTE counterparts. College internships that connect students to their ultimate career goal are an essential piece of a student’s program of study. Likewise, students may seek out job shadow opportunities or, in the best scenario, industry mentors. All of these work-based learning options are geared to help students to find their paths in life or, at the least, to determine which paths to rule out.

This important function could certainly be addressed by a college career center that also houses CTE Counseling and CTE Transitions support. Just like the Transfer Center found at most colleges, these centers could focus on very specific goals for the students.

Summary

A clear message has come from industry, education, and communities: students must be given clear options early in their education and support throughout their programs of study if we are


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to fill the increasing skills gap. Current ASCCC efforts through SCP have begun this work, benefitting greatly from the momentum of the C-ID project. Transfer Model Curricula development has paved the way for broader efforts with model curriculum in high unit majors, degrees, and certificates aligned to industry needs. Templates for statewide programs of study at the high schools that align with model curriculum degrees and certificates at colleges are only the beginning of what should be a coherent system of structured career pathways that is clear to students and easy to navigate.

No time could be better than the present to pursue such an initiative. The infusion of funding and support for career pathways at the secondary level is at an all-time high. Many organizations in California and nationally are poised to assist in this effort. Linked Learning, ConnectEd, National Academy Foundation, Career Ladders, and Jobs for the Future, among others, can assist in this effort given their years of experience and research. Each organization provides a piece of the career pathways puzzle.

The efficacy of any change in a system or culture is dependent upon support for the change. Designated CTE counselors, work-based learning support, and CTE transitions coordination are key components of the support needed. Students engaged in a coherent program of study need specialized support that current counseling efforts are unable to provide, given the ratio of students to counselors. The importance of support for students cannot be understated.