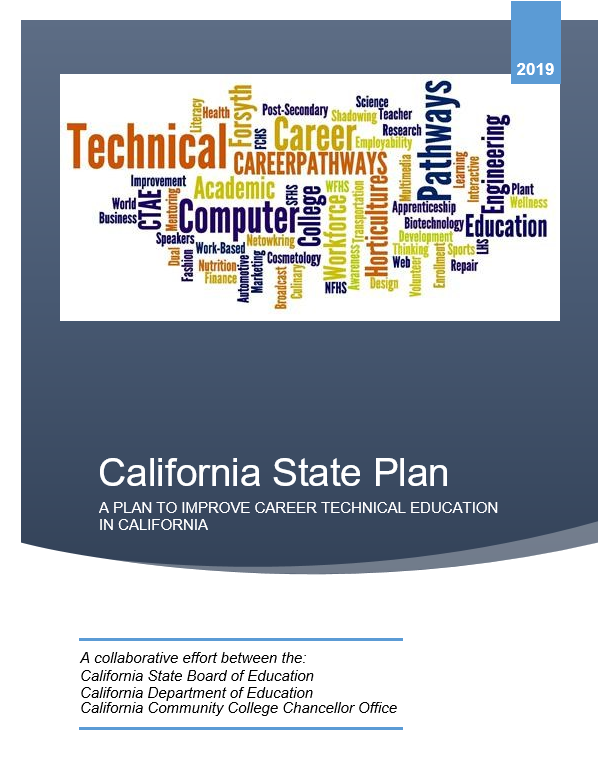
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# California State Plan for Career Technical Education

California State Board of Education Board of Governors

California Community Colleges

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## Preface

This State Plan provides California’s strategic vision, goals, and essential elements for career technical education (CTE). The State Plan takes into consideration the unique challenges and opportunities in our state and provides the necessary guidance to help educators ensure they are providing learners access to quality CTE programs aligned with the demands of industry and leading to high wage, high skill employment. The intent of this State Plan is to establish a world-class CTE system for the State of California, the most populous state in the country, and the fifth largest economy in the world, such that every student becomes both career and college ready, without regard to person, position, or place.

The need for a comprehensive statewide CTE system continues to grow in response to California’s changing workforce needs and the globalization of the world’s economy. Young adults are expected to have essential content knowledge, job-and occupation-specific technical abilities, transferable skills, and workplace competencies to match rapidly shifting workplace requirements, and adult workers must continuously update proficiencies to secure or retain employment. Given these imperatives, CTE — with its focus on rigorous and engaging curricula, supportive relationships, and demonstrated outcomes — has become critical to the preparation of all students for career and academic success, postsecondary education, adult roles and work-life responsibilities.

The development of this State Plan, presented an opportunity for California to develop a broad and bold vision for CTE, focusing on both needs of California students and the demands of industry. The view that education and career development are lifelong, and that CTE can begin as early as elementary school and span high school through postsecondary education, and on-the-job training is infused throughout the State Plan. The notion that strong CTE improves academic learning, and, conversely, that infusing or reinforcing inherent academic content can strengthen CTE, undergirds the State Plan. Equally important is ensuring that the system is “demand-driven”; that is, continuously responsive to the ever-changing needs of a complex global workplace, as well as to the needs of increasingly diverse learners.

The body of this State Plan is presented in six main chapters, preceded by an introduction. Supportive information, and required assurances and certifications are contained in the appendices. The Introduction describes state CTE priorities, how federal programs supplement these priorities, and the process used in developing the State Plan. Chapter One provides background information about the State’s current CTE structure and enrollment status. Chapter Two is a brief overview of the State’s demographic, economic, political, and educational contexts. A solid understanding of these contexts is essential to the development of a comprehensive State Plan for CTE that affects and is affected by state trends. Chapter Three describes the vision, mission, guiding principles, and goals of an effective, high-quality ideal statewide Kindergarten through Grade Fourteen (K−14) and beyond CTE system. Chapter Four provides state policy on the state educational agency (SEA) and local education agency (LEA) administration of CTE programs. Chapter Five focuses on continuous quality improvement and the Chapter Six describes how CTE should look in the future. Appendix A, contains the narrative and responses to the federal *Strengthening Career and Technical Education for the 21st Century Act* (Perkins V) statutory requirements in five key areas: program development and implementation; provision of service to special populations; accountability, evaluation, and continuous quality improvement; financial requirements; and the federal Electronic Data Gathering, Analysis, and Retrieval system (EDGAR) certifications and other assurances.

Developing the new State Plan for CTE has been a massive undertaking. Without the knowledge, skills, vision, and commitment of many hundreds of students, educators, business and industry professionals, and policymakers, it would not have been possible, and the State owes each an invaluable debt of gratitude. Special acknowledgments are extended to some of the most critical and hard-working players. First, thanks go to California Governor Gavin Newsome, State Superintendent of Public Instruction Tony Thurmond, Chancellor Eloy Ortiz Oakley, and the members of the California State Board of Education (SBE) and the Board of Governors (BOG) of the California Community Colleges Chancellor’s Office (CCCCO) for their unwavering belief in the importance of high-quality CTE and their leadership in bringing it to the fore of statewide discussion. Very special thanks are extended to the members of the Statewide Advisory Committee, who brought valuable and essential views on how CTE could be strengthened in partnership between education, business and industry. A list of the Statewide Advisory Committee members is provided in Appendix B.

Staff from the SBE, the California Department of Education (CDE), and the CCCCO worked collaboratively and diligently, weaving together a plan to prepare students from all walks of life to succeed in Kindergarten through Grade Twelve (K−12) classrooms, postsecondary institutions, workplace, and to seek learning as a lifelong endeavor. From the SBE staff, special thanks go to Patricia de Cos and Pamela Castleman. From the CDE, Pradeep Kotamraju Ph.D., Lisa Reimers, Michelle McIntosh, Pete Callas, Charles Parker, Dr. Carolyn Zachry, Jacie Ragland, Jack Mitchell, Jose Ortega, Gary Page, Robert Wilson, Bryan Baker, Colby Franklin, Laurie Garcia, Russell Weikle, and Rachel Moran. From the CCCCO, special thanks go to **Sheneui Weber, Dr. Jeffrey A. Mrizek, Dr. Matthew Roberts, Laura Casillas, Javier Romero, Jean Claude Mbomeda, and Dr. Maureen White.** In addition, a special thanks to the members from both the SBE and the BOG who were members of the California Workforce Pathways Joint Advisory Committee.

The California Comprehensive Center from WestEd was engaged to facilitate meetings, provide support, and help guide the process. Special thanks to Debra Sigman, Heather Mattson, Jennifer Zoffel, and Malachy McCormick.

Finally, the biggest appreciation is offered to the incredibly dedicated secondary and postsecondary educators and business leaders who work with the students of California — the CTE professionals who teach, mentor, and support students in classrooms, through career exploration and career development; the business leaders that provide internships, and actual job placements and career opportunities, so that today’s students become California’s world-class workforce of tomorrow.

## Introduction

California is the most populous state in the nation, the fifth largest economy in the world, and has a unique opportunity and perhaps responsibility to reshape and redefine the role career technical education (CTE) as a driver for education, workforce development, and economic prosperity for the State. Dramatic changes in educational policy, specifically changes in education funding, coupled with demographic and economic trends, created a new awakening for CTE. This, combined with a variety of California’s recent strategic workforce development plans and programs, offers both new possibilities and challenges in preparing the State’s workforce for the future. The development of this new California State Plan for CTE (State Plan) is a key part of the State’s more wide-ranging effort to create a world-class CTE system that can strengthen education and workforce preparation available to all Californians.

This State Plan is intended to serve as a catalyst to further discussion about the content and delivery of CTE and how it fits into the State’s broader educational and workforce development contexts. Statewide, CTE is supported through numerous funding streams and implemented through diverse programs. With fresh investments of ongoing state funds specifically purposed to enhance and improve CTE, California looks to create a brighter educational and economic future. These funds serve as an important lever for improving secondary and postsecondary CTE to better engage students in learning and to meet critical workforce demands, and to help students become socially mobile. It is anticipated that the development of this State Plan will lay the foundation for a broader master plan that will weave multiple funding streams and programs together into a fully articulated and integrated Kindergarten through Grade Fourteen and beyond (K−14+) CTE system.

The California Workforce Pathways Joint Advisory Committee (CWPJAC), comprising equal numbers of representatives of the State Board of Education (SBE) and the California Community Colleges Chancellor’s Office (CCCCO) Board of Governors (BOG), as well as two ex-officio (non-voting) members serves as the joint policy body that makes recommendations to the two boards regarding all aspects of coordinated delivery of CTE in the State. The CWPJAC intends that this State Plan will address systems alignment policies specific to career pathways within the context of recent and future state and federal investments. As a result, California will be strategically well positioned for Strengthening Career and Technical Education for the 21st Century Act (the name of the newly reauthorized federal law known in short form as Perkins V) and determine how the federal Perkins V funds may complement, enhance, and supplement California’s policy objectives regarding workforce pathways in the State’s regional economies.

This introduction discusses the new priorities of the State Plan and the inclusive stakeholder process that contributed to its development.

### Expanded Priorities

This State Plan provides the necessary guidance through its vision, mission, and goals to build connected, equitable, accessible, high-quality Kindergarten through Grade Fourteen plus (K−14+) college and career pathways for all students. The State Plan signals the infrastructure needs to promote regional and LEA efforts for alignment, and reinforce student supports during critical transitions leading into high school, community college, and beyond. If California is to improve K–14+ career and college pathways it must build upon existing practices across systems, and focus on key pressure points for supporting cross-system collaboration. This effort is focused on the improvement of secondary and postsecondary courses and programs that are intended to build the knowledge, skills, attitudes, and experiences needed to enter and succeed in the world of work.

The CWPJAC’s priority is to pivot towards purposeful integration of the student experience across systems and into college and career while addressing industry needs by incorporating the following Guiding Policy Principles from the CWPJAC’s Guiding Policy Principles to Support Student-Centered K−14+ Pathways:

1. Focus on a **Student-Centered Delivery of Services** for all K–14+ college and career pathways, which accommodates multiple entry points to facilitate students’ needs to build their skills as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.
2. Promote **Equity and Access** by eliminating institutional barriers and achievement gaps for all students to realize their educational and career aspirations.
3. Achieve **System Alignment** in the economic regions of the State in order to create a comprehensive and well-defined system of articulation of high-quality K–14+ pathway courses (i.e., both in-person and online) and work-based learning opportunities with a specific emphasis on CTE. Bring greater coherence to programming, common use of terminology, appropriate data collection and sharing, and attainment of student outcomes in a timely way that lead to upward mobility in California’s industry sectors. System alignment allows for greater student portability and career advancement.
4. Support the **Continuous Improvement and Capacity Building** at all levels and components to ensure smooth transitions in the system and focus efforts on implementation of state standards, attainment of student outcomes, and a strengthening of California’s regional economies.
5. Ensure that **State Priorities and Direction Lead the State Plan** with opportunities in Perkins V leveraged to assist in accomplishing the State goals and objectives for student achievement.

### The Process for Developing the State Plan

Developing a State Plan for a state as vast and diverse as California requires a broad range of expertise and knowledge, as well as access to data from a number of sources. Planning for the document actually began over two years ago when the SBE and the BOG each contributed three members to reconvene the CWPJAC. In conjunction with the public meetings conducted by the CWPJAC, the California Department of Education (CDE) and the CCCCO began holding joint collaboration meetings, first to determine how state-funded CTE programs would be implemented at the local educational agency (LEA) level, and more recently discuss how the Perkins V Plan (Appendix A) will supplement and support ongoing state CTE efforts.

The State Plan was developed in consultation with a broad range of individuals representing a diverse group of stakeholders. The California State Plan’s Statewide Advisory Committee was comprised of academic and CTE teachers, faculty, and administrators; career guidance and academic counselors; eligible recipients; charter school authorizers and organizers consistent with state law; parents and students; institutions of higher education; interested community members (including parents and community organizations); representatives of special populations; representatives of business and industry (including representatives of small business); representatives of labor organizations in the State; and other individuals as described in Section 122(c)(1) of Perkins V. Forming such stakeholder groups is not new for California, and is a long-standing practice, both in the case of the State Plan for the Every Student Succeeds Act (ESSA) and the Workforce Innovation and Opportunity Act (WIOA), as well as the many State-led initiatives that sought to promote student learning, equity and access, and continuous quality improvement.

Effective activities and procedures were utilized during the State Plan development process, including providing critical information needed to actively engage in such procedures, encouraging these individuals and entities to participate in state and local decisions related to the State Plan’s development. The Governor’s Office was consulted with respect to State Plan development including the participation of the Governor’s staff in all Statewide Advisory Committee meetings. A list of the 52-member group is provided in Appendix B.

Following the Statewide Advisory Committee meetings, members received summaries of their work and were given opportunities to make revisions. Recommendations from the Statewide Advisory Committee were conveyed to the CWPJAC for approval. Approved CWPJAC recommendations have been incorporated into the State Plan.

Additionally, public input to the State Plan was elicited through on-site public hearings and a public input website, allowing for participation from a broader spectrum of stakeholders through the convenience of their personal computers. The public was notified through established CDE and CCCCO networks and through more than 90 professional associations and CTE-related organizations comprising CTE and non-CTE educators, workforce and economic development professionals, industry representatives, parents and students. A draft of the State Plan was posted online for public review.

A summary of the comments and recommendations from these hearings and the online public review is included in Appendix C. The CDE and the CCCCO staff considered all recommendations; the recommendations were then either integrated into drafts of the State Pan for consideration by the CWPJAC or not included due to incompatibility with state goals.

Chapter One of the State Plan, which follows, describes California’s current CTE delivery system and enrollment status. This chapter, intends to provide a general overview of the existing practices, systems, and procedures in CTE. the basis establishing the for together with Chapter Two, which discusses the demographic, economic, educational, and policy context for CTE in California, provides the backdrop for the vision, mission, goals, and strategies for strengthening the CTE system proposed in Chapter Three. While Chapter Four focuses on the guidelines, policies, and procedures necessary to implement world-class college and career pathways.

## Chapter One: Career Technical Education in California

California’s public education system comprises Kindergarten through Grade Twelve (K–12) schools, adult schools, community colleges, the California State Universities (CSU), and the University of California (UC). It is regulated by a complex California *Education Code (EC)*[[1]](#footnote-1) and finance system that are largely controlled by the Legislature and Governor.

The State’s massive and geographically dispersed K–12 school system delivers public education to over 6.2 million students in more than 1,000 districts and 10,473 schools. The State provides educational services to over 1 million adult learners through Adult Education Programs delivered through both K-12 and community colleges. The California community colleges as the world’s largest public higher education system, serves over 2.1 million students at 115 campuses and 72 educational centers or districts.

Elementary and secondary schools are responsible for preparing students with both the academic knowledge and skills needed for further education, and the technical knowledge and skills needed for entry to the world of work. The SBE has established the following vision “All California students of the 21st century will attain the highest level of academic knowledge, applied learning and performance skills to ensure fulfilling personal lives and careers and contribute to civic and economic progress in our diverse and changing democratic society.”[[2]](#footnote-2)

CTE is a primary mission of the California’s community colleges as well. Its stated vision is “making sure students from all backgrounds succeed in reaching their goals and improving their families and communities.”[[3]](#footnote-3) The CCCCO has established bold and straightforward goals to significantly increase the number of students transferring to a CSU or UC campus; increasing the numbers of students earning degrees and certificates and completing career education programs leading to good jobs; reducing the number of unnecessary units many students are taking to get their degree and eliminating achievement gaps once and for all.

Together, the K–12, adult school, and California Community College systems, along with public and private sector workforce development programs, the CSU and UC systems, and business and industry, make up the core of California’s vast CTE infrastructure.

California’s CTE infrastructure, from the earliest education experiences until students exit K–12, adult school, or California Community College systems, are supported with funds from a broad range of resources. In addition to apportionment funds, which make up the majority of the funding, state-funded programs that support crucial aspects of CTE include: the CTE Incentive Grant (CTEIG), Strong Workforce Initiative, California Work Opportunity and Responsibility to Kids (CalWORKs), Workability, California Partnership Academies, Specialized Secondary Programs, Agricultural Education Incentive Grants, Proposition 1D for CTE facilities, and the California Adult Education Program (CAEP) which includes short-term CTE as one of the primary areas. Key federal resources used to supplement and strengthen state efforts include Perkins V and the WIOA.

Chapter One presents a broad overview of the current structure and enrollment status of CTE in California as a backdrop to the rest of the State Plan. Presenting a clear picture of the current system is essential in understanding the opportunities identified and system development strategies proposed in subsequent chapters. More detailed descriptions of some of the programs activities and initiatives are embedded within the discussion of the system elements in Chapter Three.

### State Level Administrative Responsibility

#### K–12 through Adult

Within the CDE, the major responsibility for CTE policy and program oversight resides in the Career and College Transition Division (CCTD). Additionally, the CCTD provides support and direction to LEAs regarding high school initiatives and adult education. An organizational chart of the CCTD and its offices is presented in Figure 1.

**Figure 1. Organizational chart of the CDE’s CCTD, 2019**

**NOTE: Insert Figure 1**

County offices of education serve as the State’s intermediary organizations, providing useful regionalized services and maintaining linkages between the State and local K–12 school districts. Given California’s immense size, its 58 county offices are organized into 11 geographic regions to facilitate collaboration, communication, and administration of CTE funds across county and district boundaries. Figure 2 describes the flow of information among the various entities.

**Figure 2. The flow of information among the local K–12 school districts  
and various state entities**

**NOTE: Insert Figure 2**

#### Community Colleges

The California community colleges are the leading provider of workforce training in the world and are uniquely positioned to improve the social and economic mobility of Californians from all backgrounds. The CCCCO is the State agency for providing state administration and direction. The Workforce and Economic Development Division (WEDD), within the CCCCO, is responsible for CTE administration and program oversite.

The WEDD supports instruction, manages grants to California community colleges, provides technical assistance, and implements strategic special programs.

The WEDD includes three units:

Career Education Practices Unit

Workforce and Economic Development

Nursing and Allied Health

Combined, these three units coordinate jobs and career opportunities for postsecondary students to advance California’s economic growth and global competitiveness. They work closely with employers, organized labor and other community partners to make sure programs are relevant, and students are properly prepared to enter or re-enter the workforce or successfully switch career paths.

The Career Education Practices Unit coordinates career education pathways with middle and high schools, as called for in the Governor’s Career Pathways Initiative. The unit prioritizes early awareness of career options, linking curriculum at public schools and community colleges, and increasing middle and high school students’ readiness and success for postsecondary education and careers in high-demand sectors.

The Career Education Practices Unit is also responsible for implementing Perkins V, which includes conducting compliance reviews and providing technical assistance relating to career education programs at all 115 California community colleges.

The Workforce and Economically Development Unit is responsible for ……

The Nursing Unit is responsible for …….

**Figure 3. Organizational chart of the CCCCO’s WEDD 2019**

NOTE: INSERT ORGANIZATIONAL CHART FOR CCCCO

**Figure 4. The flow of information through the  
California Community College system**

**NOTE: Insert Figure 4**

Together the CCTD within the CDE and the WEDD within the CCCCO working closely with the Workforce Development Department, employers, organized labor and other community partners ensure California career pathway programs are relevant, and students are properly prepared to enter or re-enter the workforce or successfully switch career paths.

### The K–12 CTE Delivery Structure

CTE varies in focus, content, delivery, and intensity, beginning as early as elementary school and progressing throughout the middle grades, high school, and higher education. Elementary and middle grade programs primarily focus on career awareness and exploration, with the goal of awakening student’s imaginations about future possibilities. These programs consist of projects, speakers, field trips, and later, job shadowing; they help students learn through experience, expose students to career options, and reinforce the development of knowledge, and skills associated with success in future careers — and in life. The career exploration and preparation process is supported by a counseling and career guidance system, which offers education and career planning, as well as social and emotional support.

Once in high school, student opportunities for career preparation become more systematic. In the lower high school grades, CTE generally focuses on career orientation, which often includes beginning technical skill development, interdisciplinary activities involving essential workplace skills such as workplace readiness skills, and introductory work-based experiences such as job shadowing, pre-apprenticeships, and service learning. In the upper grades, students can enroll in specific career preparation programs offered by their high school or by Regional Occupational Centers and Programs (ROCPs) where they learn from educators with experience in business and industry. They can also participate in direct workplace experiences, such as internships and pre-apprenticeships. Some high schools have committed to integrating CTE and academic coursework through career pathways or by restructuring their schools as “career-focused” magnets or charters, or by creating academies or smaller learning communities within comprehensive high schools. The K–12 system also supports apprenticeship opportunities through ROCPs, California Partnership Academies, and district adult school programs, providing on-the-job training in hundreds of occupations.

Students in continuation, court, and community day schools, and those incarcerated by the California Division of Juvenile Justice, are often disengaged from school and at high risk for not receiving preparation for postsecondary education and employment, and therefore have the greatest need for CTE. However, the vast majority of schools in the State’s large K–12 alternative education system do not have viable CTE pathways. The needs of these students far surpass the resources available to serve them, and student mobility precludes delivery of CTE course sequences and sustained technical training. Nonetheless, some county offices of education and districts provide career exploration and internship opportunities to these students. In addition, the State’s special schools for the deaf and blind, the Division of Juvenile Justice, and the California Department of Corrections and Rehabilitation participate in the 2 percent of Perkins V funds allowed for state institutions.

#### CDE Key Secondary and Adult Programs

District-Supported High School Programs:California’s 1,311 comprehensive high schools offer over 55,000 CTE classes,[[4]](#footnote-4) with the greatest concentration of enrollments in the Agriculture and Natural Resources; Arts, Media, and Entertainment; Health; and Engineering and Architecture Industry Sectors. High school CTE programs offer exposure to careers and essential workplace skills, technical skill training, and reinforcement of academic skills, preparing students for both postsecondary education and careers. High school courses in grades nine through ten often serve as prerequisites to those offered in the higher grades or delivered through an ROCP.

Many high school CTE programs have integrated core academic content into their CTE classes. Similarly, many academic courses provide career-related context for their material. Two programs administered by the CDE foster this type of integration: the California Partnership Academies, which require that programs have career themes, and the Specialized Secondary Programs, which often have career themes but are not required to do so. Currently, there are 340 state-funded California Partnership Academies[[5]](#footnote-5). In recent years, school reform efforts such as the creation of the State funded California Career Pathways Trust (CCPT) provided funds to develop regional partnerships between secondary schools, community colleges and business partners with the purpose of establishing or expanding career pathway programs in grades nine through fourteen. These career pathway programs are intended to prepare students for high-skill, high-wage jobs in emerging and growing industry sectors in the local or regional economy and have further facilitated the development of integrated, articulated CTE programs. In addition, many high schools develop academies and other integrated programs with internal resources, often in partnership with industry or other organizations such as the Linked Learning Alliance.

In addition, high schools offer work-based learning through Work Experience Education (WEE), administered by school districts or other LEAs. WEE programs combine an on-the-job component with related classroom instruction designed to maximize the value of on-the-job experiences. WEE is intended to help students explore careers, develop essential workplace skills such as the workplace readiness skills, and prepare for full-time employment; it is important in exposing students to both the requirements of a specific occupation and to “all aspects of an industry” — this broad exposure being a fundamental tenet of career exploration and important in any occupational area.[[6]](#footnote-6)

ROCPs:ROCPs have been a major component of California’s workforce preparation system for over 50 years. Initiated in 1967 to extend and expand high school and adult CTE programs, ROCPs were established as regional programs or centers to allow students from multiple schools or districts to attend career technical training programs regardless of the geographic location of their residence in a county or region. ROCPs have recently undergone numerous changes within the structure and funding of its programs.

Beginning in the 2009−10 school year, ROCP funding was “flexed”, meaning those funds could be spent for any educational purpose, and could be used to support academic programs or in areas other than CTE. In 2013−14, the ROCPs funding was rolled into the new Local Control Funding Formula (LCFF). This new state funding calculation replaced the previous K–12 finance system which had been in existence for roughly 40 years. For school districts and charter schools, the LCFF establishes base, supplemental, and concentration grants in place of the myriad of previously existing K–12 funding streams, including revenue limits, general purpose block grants, and most of the 50-plus state categorical programs, including ROCPs, that existed at the time. Districts are now responsible for identifying programs and approaches that correspond with eight key priorities for districts, or ten priorities for county offices of education, through a Local Control Accountability Plan (LCAP). ROCPs are well suited to meet many of the State priorities such as student engagement, student achievement, school climate, implementation of common core, and other student outcomes.

Regionalization is still a primary focus of the ROCPs and provides for efficient use of limited resources, while allowing student access to a broad array of training opportunities that often require expensive technical equipment and specially trained and experienced instructors. ROCPs currently fall under one of two distinct organizational structures (1) school districts participating in an ROCP operated by a county office of education or, (2) school districts participating under a joint powers agreement.

Like high school programs, the purpose of ROCPs is to prepare students to pursue advanced education and to enter the workforce with skills and competencies necessary to succeed. In addition, ROCPs provide opportunities for adults to upgrade existing skills and knowledge or learn new skills. The programs are limited to those occupational areas with employment opportunities, postsecondary articulation, and sufficient student interest. ROCP courses are open to all secondary and adult students.

ROCPs offer both paid and non-paid workplace experiences. ROCP instructors facilitate student placements in these workplace experiences and monitor the experiences through site visits in the field. Coordination and supervision of placements are integral aspects of an ROCP instructor’s responsibilities, with paid time allotted for these tasks.

Statewide, there are now 45 ROCPs offering a wide variety of career pathways and programs, as well as career exploration, career counseling and guidance, and placement assistance.[[7]](#footnote-7) ROCPs work with industry or pathway-specific advisory groups to update curricula annually to address labor market needs. Courses with the highest enrollments are the business/information technology and industrial technology pathways.

Apprenticeship:The Division of Apprenticeship Standards within the California Department of Industrial Relations administers California apprenticeship laws and enforces apprenticeship standards for wages, hours, working conditions, and the specific skills required for state “journeyperson” certification. Apprenticeship is an on-the-job training and education delivery system that prepares individuals for employment opportunities in a wide variety of craft and trade professions. There are over 800 occupations that offer apprenticeships in California.

The CDE supports apprenticeships by providing “related and supplementary instruction” (RSI) in 34 local adult education and ROCP agencies for over 200 apprenticeship programs, involving approximately 31,000 registered apprentices.

Apprenticeship programs in California are developed and conducted by program sponsors including individual employers, employer associations, or jointly sponsored labor/management associations. Local ROCPs and adult schools individually contract with program sponsors to meet the demand for educational programs offered in apprenticeship programs.

Apprenticeship instruction is also offered through the California community colleges.

**NEED A DISCRIPTION FROM CCCCO ON THEIR APPRENTICESHIP PROGRAMS**

#### CTE Program Structure

There is widespread agreement among business and industry, labor, educators, and policymakers that the CTE system must focus on the preparation of students for high skill, high wage, or in demand occupations. After considerable research, it was determined that CTE programs in California should be clustered around 15 broad industry sectors, reflecting the intersection of California’s economic needs and the educational needs of its K–12, ROCP, and adult school students. In addition, within each sector, three to seven career pathways have been identified. The sectors are as follows:

* Agriculture and Natural Resources
* Arts, Media, and Entertainment
* Building and Construction Trades
* Business and Finance
* Education, Child Development, and Family Services
* Energy, Environment, and Utilities
* Engineering and Architecture
* Fashion and Interior Design
* Health Science and Medical Technology
* Hospitality, Tourism, and Recreation
* Information and Communication Technology
* Manufacturing and Product Development
* Marketing, Sales, and Service
* Public Services
* Transportation

For each sector, “Model Curriculum Standards” have been developed in partnership with business and labor leaders, educators, and many other stakeholders. The SBE originally approved the California CTE Model Curriculum Standards (CTEMCS), Grades Seven through Twelve, as state policy in 2005. In January 2013, the SBE adopted the revised CTEMCS designed to prepare students to be both career and college ready. The revised CTEMCS were aligned with the Common Core State Standards, Next Generation Science Core Ideas, and the History/Social Science Standards. The Standards are organized in three distinct levels:

* The Standards for Career Ready Practice describe the fundamental knowledge and skills that students need to prepare for transition to postsecondary education, career training, or the workforce. These standards are not exclusive to a career pathway, a CTE program of study (POS), a particu­lar discipline, or level of education.
* The 11 Anchor Standards build on the Standards for Career Ready Practice and are common across each of the 15 industry sectors. Each anchor standard is followed by performance indicators presented in a hierarchical progression of simple tasks to more complex tasks. Performance indicators provide guidance for curriculum design and standards measurement.
* Pathway standards were developed for each of the 15 Industry Sectors. Each Industry Sector is divided into two to seven different pathways. The pathway Standards are organized with a career focus, but they are not designed to be offered as single courses. Rather, the standards from each pathway are collected and organized into a sequence of learning to best meet the local demands of business and industry.

Additionally, each Industry Sector includes an academic alignment matrix that displays where a natural, obvious academic alignment occurs. The alignment was selected if it was determined that the pathway standard would enhance, reinforce, or provide an application for a specific academic subject standard.

In addition to facilitating high-quality, demand-driven CTE curricula, the 15 Industry Sectors provide the framework for organizing technical assistance, PD, industry engagement, and advisory committees.

### The California Community College CTE Delivery Structure

In the California Community College system, CTE is responsive to the needs of new, traditional, incumbent, and transitional workers. It provides “open access” to career preparation through noncredit programs, for-credit certificate, not for credit, and degree programs leading directly to employment; “transfer” programs that prepare students for transition to four-year institutions; and programs to enhance skills and retraining of incumbent and re-entering workers. Across the system, courses are offered in more than 270 occupational program areas as well as work-based learning opportunities such as apprenticeships and “cooperative WEE,” which integrates academic and workplace competencies with supervised work experience.

Given the diversity of the California economy; the regionalization of industries such as agriculture, media, computer information systems, technology, and natural resources; and geographic scope, the 115 California community colleges are organized into ten macro regions and seven regional consortia to optimally provide support for the coordination and improvement of CTE programs:

* North/Far North
* Bay/Interior Bay
* Central
* South Central
* Los Angeles/Orange County
* Desert
* San Diego/Imperial

The regional consortia play an important role with identifying and meeting regional educational needs, providing training to local professionals and employers, sharing timely field-based information to state leaders, disseminating effective practices, recommending funding priorities, and supporting the achievement of statewide leadership policies, goals, initiatives, and metrics. They are key in program approval, checking that labor demands, and training facilities are sufficient to justify any new program.

To ensure a process for direct linkages between faculty and administrators with representatives from business, industry, and labor on a statewide basis, the CCCCO has established 10 advisory committees, comprising roughly 15 nominated stakeholders and practitioners each, to focus on either discipline-specific or cross-disciplinary issues. They are charged with advising the CCCCO about the relevance of the curricula and responsiveness to industry standards, funding priorities, emerging industries and occupations, partnership development, and identification of effective practices and program development needs. The 10 advisory committees are:

* Agriculture and Natural Resources
* Business Education
* Family and Consumer Sciences
* Health Careers
* Industrial and Technical Education
* Public Safety Education
* Career Development
* Research and Accountability
* Special Populations
* Work-Based Learning and Employment Services

Recommendations from the advisory committees to the CCCCO have evolved over time into ongoing statewide discipline-industry and special project “collaboratives” that mirror the advisory committee structure. The collaboratives are the workhorses of the advisory committees and the CCCCO. The purpose of these collaboratives is to improve CTE programs and instruction in each of the 10 advisory committee areas. Activities focus on developing models of effective practice for replication at the local level and for replication statewide. Models are disseminated through both the regional consortia and the Workforce and Economic Development programs, as shown in Figure 3, which describes how information flows through the California Community College system.

The WEDD ensures that CTE programs are responsive to the workforce needs of business and industry. These programs aim to advance the State’s economic growth and global competitiveness through quality education and services focused on continuous workforce development, technology deployment, entrepreneurship, and documentation of workforce needs and trends. The Economic and Workforce Development Program (EWDP) provide the logistical, technical, and marketing infrastructure for the California Community College system’s economic development efforts. They operate a network of 115 regional delivery centers, which work with CTE programs, and address industry-specific and other statewide strategic priorities, organized into 10 initiatives. These initiatives encompass such industries as biotechnologies, international trade, environmental health and safety, and homeland security. Other initiatives include business incubation, technology transfer, and workforce training.

#### Key Community College Programs and Initiatives

CTE in the community colleges is offered through several types of programs. All of these types of programs try to offer easy access to education at convenient locations, and times including evenings and weekends. California community colleges maintain market-responsive CTE programs through the statewide and regional advisory and collaborative structures previously mentioned as well as through local college program-level business and industry program advisory committees.

California Community College Credit-Bearing Occupational Programs**.** California community colleges offer college-level courses in more than 270 occupational program areas, ranging from accounting to world wide web administration, many of which lead to certificates or licenses based on industry standards. These programs range in length from a few courses to two full years of coursework. More than 5,744 credit CTE programs of 18 or more units (e.g., at least six three-unit courses) approved by the CCCCO, along with thousands of short-term programs approved at the college level, are currently offered in California community colleges.

Many CTE programs are designed to facilitate a “career ladder” approach whereby multiple employment exit points are designed into the program, with certificates provided at each stage to serve as indicators of skill levels for employers, and as milestones for students. These multiple exit points allow students to gain job skills and earn certificates for entry into, or advancement in, employment. Students can subsequently complete additional coursework to earn additional certificates that provide for further employment mobility by building on previous certificate coursework within the career ladder. That same coursework can then be applied in most cases to the requirements for the two-year degree and often articulates with coursework at four-year universities as well. Most of the programs are designed to lead directly to employment, but many also prepare students for further education in the CSU or UC systems.

Programs on most campuses are overseen by Vocational Deans or Deans of Vocational Education and Economic Development. All new CTE programs must be approved through the district curriculum committee process and demonstrate a sufficient labor market demand for graduates. Credit programs that require 12 or more credits and appear on students’ transcripts must also be approved by the CCCCO. In new or emerging areas, programs are also sent to the California Postsecondary Education Commission for review.

Beyond meeting college course and program standards, courses and programs must meet standards set forth in the *Program and Course Approval Handbook* published by the CCCCO, Title 5 of the California Code of Regulations, and the California *EC*. Additionally, the regular and systematic review of instructional programs is mandated not only by Title 5 regulations and *EC* statutes, but also by the standards of the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges.

At a minimum, under Title 5 requirements, all CTE programs must demonstrate to the district governing board every two years that the program:

* Meets a documented labor market demand
* Does not represent unnecessary duplication of other manpower training programs in the area
* Is of demonstrated effectiveness as measured by the employment and completion success of its students

In addition, all of California’s community colleges offer Cooperative WEE (Co-op), a form of work-based learning that integrates classroom knowledge with productive work experience in a business or industry setting, guided by a learning plan. Co-op programs are intended to help students clarify career goals; reinforce academic skills, workplace competencies, or occupation-specific technical skills; and assist in transitions to employment. Co-op courses are not restricted to students in occupational programs, however, they may be offered in association with non-occupational academic programs or to students as a means to integrate classroom study with planned and supervised experiences in the workplace.

Community College-Based Apprenticeship.To provide apprenticeship training for their employees, many employers partner with the CCCCO, as well as the CDE. The California community colleges have more than 160 apprenticeship programs comprising 66 trades/crafts titles located on 39 campuses. Apprentices receive on-the-job training via their employers, and in the evening or on weekends receive employer-selected RSI. All RSI apprenticeship programs offered by the California community colleges must be approved by the Chancellor of the California community colleges, as well as by the Division of Apprenticeship Standards, within the California Department of Industrial Relations. Many of the RSI apprenticeship programs, which are typically three to five years in length, allow apprentices to earn a certificate or an Associate’s Degree.

Guided Pathways.The CCCCO introduced the Guided Pathways framework in the fall of 2017. Today, all 115 California community colleges are actively working on or implementing a Guided Pathways model. The Guided Pathways framework creates a highly structured approach to student success that provides all student with a set of clear course-taking patterns to promote better enrollment decisions and prepare students for future success. Guided Pathways is aimed at helping students reach their career and educational goals by creating highly structured, unambiguous road maps that will lead to a defined objective. The Guided Pathways framework can improve student achievement and transfer, cut down on the total number of units while earning a degree, increase career certifications and eliminate achievement gaps.

The Guided Pathways framework rests on four pillars:

* Create clear curricular pathways to employment and to further education
* Help students choose and enter their pathway
* Help student stay on their path
* Ensure learning is happening with intentional outcomes

Kindergarten through Grade Twelve (K−12) Strong Workforce Program**.** The CCCCO, in partnership with the CDE, coordinate the K–12 Strong Workforce Program (K–12 SWP). The K–12 component of the Strong Workforce Program intends to create, support, and/or expand high-quality career education programs at the K–12 level that are aligned with the workforce development efforts occurring through the California community college Strong Workforce Program and regional priorities.

The goal of the K–12 SWP is to increase the levels of college and career readiness among students, which will support their successful transition from secondary education to post-secondary education and, ultimately, a career.

Eligible LEAs participate in a collaborative process and form an application consisting of one or more of any combination of the following eligible applicants:

* School districts
* County offices of education
* Charter schools
* ROCPs operated by a joint powers authority, provided that the application has the written consent of each participating LEA

Contract Education**.** Beyond providing ongoing classes on their campuses, California community colleges also offer “contract education” courses, which are developed specifically to serve the needs of a particular business or industry. California's 114 California community colleges are in a unique position to assist businesses in developing high-skilled, high-performance work groups. The colleges deliver training programs for both future and current workers to prepare them to be competitive with the workforces of other countries in the application of emerging technologies. These programs are often managed by Deans of Contract Education or Deans of Contract Education and Economic Development, depending on the campus. Overall, the California community colleges have served more than 26,000 businesses through contract education services.

#### Foundation for California Community Colleges

The Foundation for California community colleges supports the California community colleges in developing a diverse, well-prepared workforce for the California economy. Workforce development has been a core focus of the Foundation for California community colleges since inception, beginning with the Career Catalyst, an internship facilitation service, which launched in 1998. The Foundation for California community colleges programs and services have since expanded, building on the momentum of the Student Success Initiative and the subsequent Workforce, Job Creation, and a Strong Economy Task Force, launched in 2015, which released 25 recommendations to reform and enhance current college workforce development efforts.

The Foundation for California Community Colleges raised philanthropic support for the Workforce Task Force (WTF), making possible the extensive input from more than 1,200 stakeholders that culminated in a comprehensive plan for creating incentives, streamlining processes, and identifying and showcasing best practices. In alignment with the recommendations created by the WTF. The Foundation for California Community Colleges is actively working to reduce the skills gap in California and grow our economy by ensuring that Californians have the skills needed to succeed in college and career.

### The Adult Education Delivery System

In an era of rapid technological, economic, and social change, the mission of adult education is to provide high-quality lifelong learning opportunities and services to adults. California’s adult education system supports adult learners by addressing basic literacy needs, adult basic skills in language and mathematics, English as a second language (ESL) programs, high school diploma and high school equivalency, workplace readiness skills, and CTE. Programs are funded by the State California Adult Education Program (CAEP) funds and supplemented with federal WIOA Title II: Adult Education and Family Literacy Act (AEFLA) grant and Perkins V funds. Programs are delivered through adult schools, non-credit community college courses, Community Based Organizations, prisons, and libraries.

The CAEP serves state and national interests by providing life-long educational opportunities and support services to all adults. The CAEP address the unique and evolving needs of individuals and communities by providing adults with the knowledge and skills necessary to participate effectively as productive citizens, workers, and family members. Adult students can use the competences gained to achieve basic life skills, enhance employment and career opportunities, obtain citizenship, progress to career or postsecondary programs, and function in English at higher cognitive levels to become contributing members of society.

In 2017−18, 380 agencies provided classes for adults in a variety of settings including school classrooms, community centers, storefronts, churches, businesses, jails, prisons, libraries, and migrant camps.

The California adult education system provides education opportunities in seven area:

* **ABE & Secondary Education** – programs in elementary and secondary basic skills, including programs leading to a high school diploma or high school equivalency.
* **ESL & Citizenship** — programs for immigrants eligible for educational services in citizenship, ESL, and workforce preparation.
* **CTE** — a variety of career training programs that deliver customized curriculum needed to meet the diverse training and development needs of businesses, promote a skilled workforce with high growth and high wage employment potential, leading to industry certifications or meeting the required prerequisites and foundations for advanced career pathways.
* **Workforce Reentry** — programs for adults, including, but not limited to, older adults, that are primarily related to entry or reentry into the workforce.
* **Training to Support K−12 Child Success** — programs for adults, including, but not limited to, older adults, that are primarily designed to develop the knowledge and skills to assist elementary and secondary school children to succeed academically in school.
* **Programs for Adults with Disabilities** — programs for individuals with physical, cognitive, mental, sensory, or other medical disabilities who may need special education assistance, or who require a modified program.
* **Pre-Apprenticeship** — programs offering training activities conducted in coordination with one or more apprenticeship programs approved by the Division of Apprenticeship Standards for the occupation and geographic area.

The CDE and the CCCCO are co-leaders in the administration of state funds used to support adult education programs. State funding supports the adult education system through a regional consortia model consisting of community college districts and school districts. The members and partners in regional consortia develop long and short range plans to better meet the educational needs of adults.

Adult education agencies provide short-term CTE courses in a variety of occupational areas, including many allied to health, industrial technology, service, and business technology career fields. Adult school health career training programs have strong collaborations with local medical facilities, and health providers to address local employer demands. Adult schools also serve as the LEAs for apprenticeship programs. Many adult education CTE programs include internships and other workplace training opportunities, particularly in medical/health training programs. These experiences are provided in partnership with local health/medical employers and are integral to the CTE students’ certificated and/or licensed training programs. Before students are ready for internships or apprenticeships, many adult schools help to further prepare students using an Integrated Education and Training model which supports adult learners’ acquisition of basic skill and/or English, workforce preparation, and the ability to participate in workforce training. The training component is often delivered through a CTE course.

### Workforce Development, Business, and Community Partners

Beyond the secondary and postsecondary education systems, CTE is delivered through other public sector and community-based programs, and is supported by business and industry partnerships.

Within the public sector, a critically important partner in the workforce development system is the California Workforce Development Board (CWDB) and by extension, California’s 45 local Workforce Development Boards (LWDB). The CWDB is mandated by the federal WIOA and is responsible for the oversight and continuous improvement of the workforce system in California. This includes, policy development; workforce support and innovation; and performance assessment, measurement and reporting. In 2016, the CWDB, in conjunction with its statewide partners, released the Unified Strategic State Plan, which was then updated in 2018. This plan is built around three policy objectives, which are intended to guide state policy and practices across partner programs, as well as inform local policy and service delivery. These objectives are:

* Fostering demand-driven skills attainment
* Enabling upward mobility for all Californians
* Aligning, coordinating, and integrating programs and services

The LWDB are made up of at least 50 percent business and industry representatives and WIOA partners. In partnership with local elected officials, they plan and oversee the local workforce system. Local boards also designate operators that oversee and manage America’s Job Center of California (AJCC) to provide both “drop-in” and “case-managed” career services to the public, with a focus on individuals facing barriers to employment. In addition, the local boards identify providers of training services, monitor system performance against established performance measures, negotiate local performance measures with the SBE and the Governor, and review and verify labor market information to guide their efforts. Further, local boards have Youth Councils that develop parts of the local plans relating to youth, recommend providers of youth services, and coordinate local youth programs and initiatives.

Postsecondary institutions with CTE programs assisted under Perkins V are mandatory partners in the AJCC Career Center delivery system established by WIOA. As partners, these institutions, primarily community colleges, both participate in the oversight of the AJCC and facilitate access to their CTE services for AJCC clients.

Community partners play important roles in California’s K–12, adult school, and California community college systems. In addition to serving on LWDBs and Youth Councils, local nonprofit organizations, professional and trade associations, and youth development organizations such as the Boys’ and Girls’ Clubs, Junior Achievement, and 4-H often provide a myriad of career-related educational services.

Finally, as described in greater detail in Chapter Three, businesses not only participate on LWDBs and CTE advisory committees, they also provide direct services to students and faculty by offering career exploration opportunities, work-based learning opportunities, and teacher externships.

### Enrollments

#### Secondary CTE Enrollment

As shown in Figure 5, secondary CTE courses accounted for 981,967 enrollments, or 50.5 percent of the State’s 1,943,939 enrollments in grades nine through twelve in 2017−18.

**Figure 5. CTE course enrollment compared to  
total high school enrollment, 2000−18**

**NOTE: Insert Figure 5**

The data indicates many high school students choose to enroll in CTE and there has been a steady increase in high school-based CTE enrollments between 2012−18.

\*Data was not available for the 2009−10 academic year.

**Figure 6. CTE enrollment as a percentage of overall  
enrollments at the secondary level, 2000–18**

**NOTE: Insert Figure 6**

Table 1 shows the breakdown of enrollments by CTE Industry Sector. CTE course taking at the secondary level is concentrated in 15 Industry Sectors and 58 defined pathways. Almost 8 percent of students enrolled in CTE are enrolled in multiple industry sectors.

\*Data was not available for the 2009−10 academic year.

**Table 1. Secondary CTE enrollment by career area, 2017−18**

| **Industry Sector** | **Number of Enrollments** | **Percentage of Enrollments** |
| --- | --- | --- |
| Agriculture and Natural Resources | 108,504 | 11.05% |
| Arts, Media, and Entertainment | 218,912 | 22.29% |
| Building and Construction Trades | 41,860 | 4.26% |
| Business and Finance | 53,663 | 5.46% |
| Education, Child Development, and Family Services | 34,787 | 3.54% |
| Energy, Environment, and Utilities | 7,678 | 0.78% |
| Engineering and Architecture | 72,666 | 7.40% |
| Fashion and Interior Design | 6,897 | 0.70% |
| Health Science and Medical Technology | 96,891 | 9.87% |
| Hospitality, Tourism, and Recreation | 72,277 | 7.36% |
| Information and Communication Technologies | 82,353 | 8.40% |
| Manufacturing and Product Development | 23,014 | 2.34% |
| Marketing Sales and Service | 18,350 | 1.87% |
| Public Services | 36,325 | 3.70% |
| Transportation | 33,734 | 3.44% |
| Students enrolled in multiple industry sectors | 74,056 | 7.54% |
| **Total CTE enrollments** | 981,967 | 100% |

Table 2 displays the secondary enrollment distribution by gender and ethnicity. The data reflect somewhat higher proportions of males in CTE than in high schools overall, and slightly higher proportions of white students enrolled in CTE courses given their overall enrollment, though, overall, the distribution of students in CTE by ethnicity appears consistent with the ethnic distribution of high school students throughout the State.

**Table 2a. Percentage of students enrolled in high school and  
CTE courses by gender 2017-18.**

| **STUDENTS** | **High School Enrollment (Percent)** | **CTE Enrollment (Percent)** |
| --- | --- | --- |
| Male | 51.3% | 56.6% |
| Female | 48.7% | 43.4% |

**Table 2b. Percentage of students enrolled in high school and  
CTE courses by ethnicity 2017-18.**

| **STUDENTS** | **High School Enrollment (Percent)** | **CTE Enrollment (Percent)** |
| --- | --- | --- |
| African American | 5.7% | % To Be Determined |
| American Indian | 0.6% | % To Be Determined |
| Asian | 9.3% | % To Be Determined |
| Filipino | 2.9% | % To Be Determined |
| Hispanic | 43.4% | % To Be Determined |
| Pacific Islander | 0.5% | % To Be Determined |
| White | 23.9% | % To Be Determined |
| Multiple | 2.9% | % To Be Determined |
| Not Reported | 0.9% | % To Be Determined |

#### Postsecondary CTE Enrollment

CTE course enrollments at the California community colleges constitute a significant proportion of overall community college enrollments, accounting for roughly 1.4 million students in CTE programs, or about 56 percent of the 2.5 million students enrolled in the California community college system.

Figure 7 shows the postsecondary CTE credit and noncredit (including California community college adult education) course enrollment trend from (NOTE: NEED A DATE RANGE), compared to overall enrollments. CTE enrollments have roughly paralleled total California community college enrollments over the last 14 years, remaining at just over 30 percent of the total. CTE enrollments steadily climbed to a high of 3,636,616 in 2002, and then began to decline due to budget cuts which resulted in fewer course offerings. The demand for CTE courses surpasses actual course offerings due to limited resources and the system’s “enrollment caps,” which limit enrollments to what state and local funds can support and result in waiting lists. At some campuses, this has been temporarily mitigated by increasing the enrollment caps through additional categorical state funds or contracted fee-based services.

**Figure 7. Postsecondary CTE course enrollment  
compared to total course enrollment.**

Course enrollment varies by career area, with students concentrated most heavily in business education (34 percent), followed by agriculture and natural resources (18 percent), industrial and technical education (13 percent), family and consumer sciences (13 percent), public safety education (12 percent), and health occupations (10 percent).

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With their commitment to lifelong learning, the California community colleges enroll students across a broad age span. Just over one half of all students enrolled in the 2005–06 academic year were age 24 or younger (50.5 percent), with nearly one-fourth of all students age 19 or younger (24.1 percent), 25 while nearly half (49.5 percent) were age 25 or older, with 22.3 percent 40 or older.

Table 3 displays the California community college enrollment distribution by gender and ethnicity, showing slightly higher proportions of African American, Asian, and White students enrolled in CTE courses given their overall enrollment. Overall, White and Hispanic students constitute roughly two-thirds of the CTE enrollments (65.7 percent).

**Table 3a. Gender of students enrolled in  
California community college academic and CTE courses.**

| **STUDENTS** | **California Community College Enrollment (Percent)** | **CTE Enrollment (Percent)** |
| --- | --- | --- |
| Male | % To Be Determined | % To Be Determined |
| Female | % To Be Determined | % To Be Determined |

**Table 3b. Ethnicity of students enrolled in  
California community college academic and CTE courses.**

| **STUDENTS** | **California Community College Enrollment (Percent)** | **CTE Enrollment (Percent)** |
| --- | --- | --- |
| African American | % To Be Determined | % To Be Determined |
| American Indian | % To Be Determined | % To Be Determined |
| Asian | % To Be Determined | % To Be Determined |
| Filipino | % To Be Determined | % To Be Determined |
| Hispanic | % To Be Determined | % To Be Determined |
| Pacific Islander | % To Be Determined | % To Be Determined |
| White | % To Be Determined | % To Be Determined |
| Multiple | % To Be Determined | % To Be Determined |
| Not Reported | % To Be Determined | % To Be Determined |

##### Adult CTE Enrollment in Adult Schools and ROCP

Additionally, the total number of adult enrollments in CTE programs administered by ROCPs and adult school courses was (NOTE: NEED A NUMBER) for the 2016−17 school year. More than half were enrolled in either Business and Administrative Services (41.9 percent) and Health Services (16.9 percent).

##### Special Populations CTE Enrollment

The State’s K–12, adult school, and California Community College systems are committed to ensuring equal access to CTE programs and support activities and services for all its students, particularly members of identified special population groups, defined as individuals with disabilities; individuals from economically disadvantaged families, including foster children; single parents, including single pregnant women; displaced homemakers; individuals with limited English proficiency; and individuals preparing for “nontraditional fields.” Table 4 shows the enrollments of secondary, postsecondary, and adult special population groups enrolled in CTE courses. Despite data reported as duplicated counts, since many students reported are members of more than one special population category, there are roughly 1 million students who identified as nontraditional enrollees and almost as many who identified as economically disadvantaged, as well as more than 300,000 students reporting limited English proficiency.

These data reveal that CTE programs serve students of all ages with diverse needs, facing multiple challenges. CTE takes its responsibility to serve these populations very seriously, not only to comply with federal regulations, but because of its commitment to ensure that all students succeed. Further, this responsibility extends beyond these students to the businesses and organizations relying on the human resources all future employees have to offer. Finally, CTE is responsible to the communities in which these students reside, ensuring that students complete programs with the education and skills necessary to contribute positively to their communities’ economic and social well-being.

**Table 4. Secondary, postsecondary, and adult  
special population enrollment in CTE**

NOTE: Table 4 Goes Here

Chapter Two discusses the demographic, economic, educational, and policy context for CTE. Chapter Three provides the vision, mission, goals, and principles proposed by stakeholders for CTE, and gives further detail on current CTE practice, along with strategies in each of 11 “system elements” to strengthen CTE in the years to come.

## Chapter Two: The Context for CTE in California

The development of the State Plan must consider the demographic, economic, educational, and political contexts shaping the State’s education and workforce demands. Shifts in population, economic growth, and regional recessions, emerging and declining industries, educational reforms, and state political priorities all present opportunities and challenges for the delivery of CTE.

### Demographic Context

#### Total State Population Growth

Developing a State Plan that meets workforce demands requires an understanding of trends in the size and composition of California’s population. California is the most populous state in the nation, with slightly more than 39 million people (according to 2018 estimates).[[8]](#footnote-8) Its population is almost one and a half times that of second-place Texas (28 million). From 2006 to 2016, California’s population grew by 9 percent, which was historically low for the State and barely higher than the rest of the nation (8 percent). International migration to California has remained strong over the past 10 years adding to the diversity of the State’s population. Overall, California gained 3.1 million residents over the past 10 years. One out of eight US residents’ lives in California and by 2030, California’s population is projected to reach almost 44 million people.[[9]](#footnote-9)

#### Population Growth by Age Group

While the State’s overall population is expected to grow, there are some notable differences projected for the various age groups. The average age of Californians is increasing as the aging of the baby boomers leads to substantial growth in the 55 and older cohort. At the same time, the elementary and secondary school age population is expected to experience slower growth, due in part to declines in birth rates, lower in-migration, and the aging of children from the baby boomers.[[10]](#footnote-10) Consistent with the latter, the 20−34 year−old cohort is increasing more rapidly than it did in the previous decade.

Overall, population changes for different age groups are anticipated to look quite different over the next decade compared to the previous decade. The 14–19 year−old cohort is projected to experience growth in the next decade (2020−30) compared to the previous decade (2010−20) which indicates decreases in this population. With the exception of 14 year olds which continue to decrease, all other ages in this cohort show significant increases. Approximately 42,000 additional students during 2020−30 compared to a decrease of approximately 6,100 in the previous decade.

Between 2020−30, the State projects an increase of approximately a half million residents in the 20−34 year−old age group, up from an increase of 148,967 in the previous decade.

The 35−54 year−old cohort is expected to experience significant growth at over 300,000 residents in the next decade 2020−30, after only a slight increase of 46,000 the previous decade.

The 55 and older age group is projected to increase by another 2.7 million, with the retirement of the baby boomers remaining a factor in the California labor market.

#### Statewide Population by Ethnic Group

No one race or ethnic group constitutes a majority of California’s population: 39 percent of state residents are Latino, 37 percent are White, 15 percent Asian American, 6 percent African American, 4 percent Multiracial, and slightly more than 1 percent American Indian or Pacific Islander, according to the 2018 American Community Survey. In 2015 Latinos surpassed Whites as the State’s single largest ethnic group. According to 2018 estimates, 27 percent of Californians (10.7 million) are foreign born—a higher proportion than in any other state (New York is second with 23 percent) and twice the nationwide share (13 percent).

California is home to almost 11 million immigrants—about a quarter of the foreign-born population nationwide. In 2017, the most current year of data, 27 percent of California’s population was foreign born, more than double the percentage in the rest of the country. Half of California children have at least one immigrant parent. The vast majority of California’s immigrants were born in Latin America (50 percent) or Asia (40 percent). California has sizable populations of immigrants from dozens of countries; the leading countries of origin are Mexico (4.1 million), China (969,000), the Philippines (857,000), Vietnam (524,000), and India (507,000). However, most (56 percent) of those arriving between 2010−17 came from Asia; only 29 percent came from Latin America.[[11]](#footnote-11)

After decades of rapid growth in immigrant populations, the number of immigrants has leveled off. In the 1990s, California’s immigrant population grew by 37 percent (2.4 million). But in the first decade of the 2000s, growth slowed to 15 percent (1.3 million), and in the past 10 years, the increase was only 6 percent (about 600,000). The decline in international immigration has contributed to the slowdown of California’s overall population growth.

Consideration of population changes by both age and ethnicity reveals additional important information for CTE planning. In 2017, foreign-born residents accounted for 71 percent of Californians age 25 and older without a high school diploma and 31 percent of college-educated residents. But recent immigrants and immigrants from Asia tend to have very high levels of educational attainment. About half (48 percent) of foreign-born residents who have come to the State since 2010—and 58 percent of those who have come from Asia—have at least a Bachelor’s Degree. Overall, 34 percent of California’s immigrants have not completed high school, compared with 8 percent of US-born California residents. Twenty-nine percent of California’s foreign-born residents have attained at least a Bachelor’s Degree, compared to 36 percent of US-born residents.

#### Regional Differences

Given the vast physical size and geographic diversity of California, different regions of the State experience population growth and decline at varying rates. Foreign-born residents represented at least one-third of the population in five California counties: Santa Clara (39 percent), San Francisco (36 percent), San Mateo (35 percent), Los Angeles (34 percent), and Alameda (33 percent). Southern California counties are expected to continue to see the greatest increase in numbers of people through the year 2030.

Not surprisingly, [California](http://worldpopulationreview.com/states/california-population/)'s [Los Angeles](http://worldpopulationreview.com/us-cities/los-angeles-population/) County is the largest county in the State, as well as the nation, with a huge population of 10,150,558 that continues to grow – the most recent census shows that its population has increased by 3.32 percent since the last census. A number of other Californian counties also boast large populations, although they look small in comparison to Los Angeles County. [San Diego](http://worldpopulationreview.com/us-cities/san-diego-population/) County has a population of 3,337,685 and a growth rate of 7.8 percent, while neighboring Orange County has 3,190,400 residents and a growth rate of 6 percent.

The [smallest county](https://www.census.gov/quickfacts/fact/table/alpinecountycalifornia,sandiegocountycalifornia,orangecountycalifornia/PST045217) in California is [Alpine County](http://worldpopulationreview.com/us-counties/ca/alpine-county-population/), with its population of just 1,120. This total represents a decrease of 4.7 percent since the last census count performed in 2010. [Sierra County](http://worldpopulationreview.com/us-counties/ca/sierra-county-population/) and [Modoc County](http://worldpopulationreview.com/us-counties/ca/modoc-county-population/) follow, with populations of 2,999, and 8,859, respectively, and negative growth rates of 7.4 percent and 8.5 percent. Many other counties have fewer than 50,000 residents, such as [Trinity County](http://worldpopulationreview.com/us-counties/ca/trinity-county-population/) (12,839), [Del Norte County](http://worldpopulationreview.com/us-counties/ca/del-norte-county-population/) (27,450), and [Siskiyou County](http://worldpopulationreview.com/us-counties/ca/siskiyou-county-population/) (43,511) – each of these counties also show negative growth rates. However, one smaller county, [San Benito County](http://worldpopulationreview.com/us-counties/ca/san-benito-county-population/) (59,335) has increased its population by an impressive 6.85 percent since the last census.

[Alameda County](http://worldpopulationreview.com/us-counties/ca/alameda-county-population/), with its sizeable population of 1,653,236, has shown the [largest population growth](https://www.census.gov/quickfacts/fact/table/lassencountycalifornia,alamedacountycalifornia,modoccountycalifornia,sierracountycalifornia/PST045217), with a substantial increase of 10.1 percent – this can perhaps be attributed to its proximity to [San Francisco](http://worldpopulationreview.com/us-cities/san-francisco-population/). Indeed, [San Francisco County](http://worldpopulationreview.com/us-counties/ca/san-francisco-county-population/) also has a substantial population growth of 8.73 percent and 876,103 residents. [Lassen County](http://worldpopulationreview.com/us-counties/ca/lassen-county-population/) has the highest negative growth, with its 31,000 residents representing a significant decrease of 10.7 percent.

#### Economic Disadvantage and Immigration

According to official poverty statistics, 13.3 percent of Californians lacked enough resources—about $24,900 per year for a family of four—to meet basic needs in 2017. The rate has declined significantly from 14.3 percent in 2016, but it remains above the most recent low of 12.4 percent in 2007. Moreover, the [official poverty line](https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html) does not account for California’s housing costs or other critical family expenses and resources.

The poverty rate in California is even higher when factoring in key family needs and resources. The California Poverty Measure (CPM), a joint research effort by the Public Policy Institute of California (PPIC) and the Stanford Center on Poverty and Inequality, is a more comprehensive approach to gauging poverty in the State. It accounts for the cost of living and a range of family needs and resources, including social safety net benefits. According to the CPM, 17.8 percent of Californians (about 6.9 million) lacked enough resources to meet basic needs in 2017—about $32,500 per year for a family of four, nearly $7,600 higher than the official poverty line. Poverty was highest among children (19.3 percent) and lower among adults age 18–64 (17.1 percent) and those age 65 and older (18.5 percent). The overall poverty rate declined substantially in 2017, after two years with little improvement.

Los Angeles (23.0 percent), Santa Barbara (22.0 percent), and Santa Cruz (21.7 percent) Counties had the highest poverty rates in California (2015–17 average). El Dorado County had the lowest rate, at 10.7 percent. Rates vary more widely (from 5.1 percent to 44.5 percent) across [local areas and state assembly, state senate, and congressional districts](https://www.ppic.org/map/california-poverty-by-county-and-legislative-district/). Safety net benefit programs reduce poverty much more in inland areas: without these resources in family budgets, 13.1 percent more people in the Central Valley and Sierra counties would be below poverty, compared with 3.7 percent more in the Bay Area.

In 2017, the poverty rate for Hispanics (23.6 percent) was much higher than African Americans (17.6 percent), Asian Americans/Pacific Islanders (16.4 percent), and Whites (12.5 percent). Though poverty among Hispanics is down from a high of 30.9 percent in 2011, Hispanics remain disproportionately below the poverty level (making up 52.2 percent of those below the poverty level in California, but only about 39.4 percent of total Californians). Less-educated Californians also continue to have dramatically higher poverty rates. More education continues to be associated with strikingly lower poverty rates: 7.8 percent of adults age 25–64 with a college degree were in poverty, compared with 31.8 percent of those without a high school diploma.

Children are particularly hard hit by poverty. Poverty rates for children under 18 are much higher (19.3 percent) than for adults 18−64 (17.1 percent) or for seniors over 65 (18.5 percent). Another proxy for childhood poverty is student enrollment in the public school’s free and reduced price meal programs. In California, more than 3.1 million students ages 5–17 are enrolled in the federal free or reduced price meal program, representing more than 50 percent of public K–12 enrollments in the State.

In 2017, 84.5 percent of California children living in poverty lived with families with at least one working adult. Half of children living in poverty (52.4 percent) lived in families with at least one adult working full time for the entire year, and a third (32.2 percent) had at least one adult in the family working part time and/or part of the year.[[12]](#footnote-12)

Of particular importance is the role that immigration is expected to play in the future workforce. Most of the growth in California’s workforce over the next 25 years is projected to come from immigrants (39 percent) and the children of immigrants (60 percent). The State will need to ensure that CTE addresses the unique needs of these families as they enter into the State’s education system and workforce.

California increasingly depends on immigrants to meet demand for highly educated workers. Immigrants make up about 30 percent of California workforce with at least a Bachelor’s Degree, up from 20 percent in 1990. Highly educated immigrants work in every major industry in the State and are especially well-represented in the technology and health sectors. A majority (62 percent) of college graduates in electronics and product manufacturing are immigrants, as are about half of workers in software publishing (45 percent) and computer systems design (49 percent). Immigrants make up 59 percent of college graduates in skilled nursing facilities.

In 2017, 32 percent of working-age immigrants in California had not graduated from high school, compared to 7 percent of US-born Californians. An additional 20 percent of immigrants in California finished high school but did not attend college, similar to US-born residents (21 percent). Immigrants make up a large share of workers in industries that require little formal education, including agricultural production and the hospitality industry.[[13]](#footnote-13)

The unique challenge in meeting the needs of immigrants is the lack of English language proficiency. According to the U.S. Census Bureau approximately 44 percent of California residents over the age of five speak a language other than English at home.[[14]](#footnote-14)

Currently, 19.3 percent of the total enrollment in California public schools are classified as English learners. There are 1.2 million students in California’s K–12 education system identified as “English learners.” Another 1,3 million are “Fluent English Proficient” and speak a language other than English in their homes. These students collectively speak more than 50 different languages, with 1.3 million (85 percent) speaking Spanish as their native language.[[15]](#footnote-15)

#### Implications for CTE

Understanding these complex demographic features, and particularly the implications of immigration, the aging workforce, and economic disadvantage among young people, remains important for the CTE planning process. Given California’s current and expected population shifts, CTE plans must continue to meet the educational and technical skill needs of a new and diverse group of students, many of whom are not proficient in English or may be the first in their families to attend college. The retirements of the baby boom generation, coupled with a growth in the 20−34 year−old cohort, underscore the importance of making sure workforce-age residents are equipped to enter and energize the economy. CTE must also target economically disadvantaged students and workers so they can receive the education and training needed to transition into higher wage and high demand jobs. Finally, population growth in rural counties suggests the need for innovative delivery strategies, including greater use of regional collaborations and distance education.

### Economic Context

Information about California’s economic context and regional economies, as well as the projected labor market, employment, and earnings trends, is critical to the CTE planning process. Specifically, the data help identify occupations that are in high demand, employ a large percentage of the workforce, and reflect new and emerging fields of work. Strong economic data can also help educators supply current and relevant workforce information to students, facilitating their career decision-making processes.

California’s gross state product is more than $2.94 trillion, accounting for more than 14 percent of US gross national product. California has the fifth largest economy in the world,[[16]](#footnote-16) almost 60 percent greater than that of Texas, which has the next largest state economy. In addition, California has the largest labor market in the country with more than 17 million nonfarm jobs in 2019, representing 11.5 percent of nonfarm jobs in the United States.[[17]](#footnote-17)

#### The New Economy — Challenges and Changes

The economy for the 21st century is characterized by new industries and new technologies, as well as by an unprecedented globalization of the workforce.

The nation’s education and training systems must adapt to these changes in order to compete in the ever changing global economy. California is at the center of many of the changes that are occurring in the current economy. The State’s economic base is concentrated in industry sectors with above average growth potential both nationally and worldwide. California is at the center of innovation in new and growing technologies such as stem cell research, alternative energy, social media, and has the nation’s largest entertainment and tourism sectors. In addition, small businesses, defined as employer firms with fewer than 500 employees, represent more than 99 percent of the employers in the State and employ more than 48 percent of the State’s nonfarm private sector workforce; firms with fewer than 100 employees represent more than 97 percent of the employer businesses in the State and employ nearly 40 percent of the State’s nonfarm private sector workforce.[[18]](#footnote-18)

While much attention is paid to new jobs that will be created in emerging industries, national and state analyses indicate that there will be many more job openings from replacement jobs (due to retirements and job changes) than newly recreated jobs.

The new Bureau of Labor Statistics (BLS) projections indicate there will be almost four job openings from the need to replace existing workers for every one job opening from job growth. The ratio of new to replacement job openings will vary by occupation and geographical area, which is another reason why robust regional partnerships with employer input are critical for correctly identifying future labor market needs and opportunities.

Nationally, it is projected that 11.5 million new jobs will be created over the 2016−26 decade. This growth, 0.7 percent annually, is faster than the 0.5 percent rate of growth during the 2006–16 decade, a period heavily affected by the 2007–09 recession.

About 9 out of 10 new jobs are projected to be added in the service-providing sector from 2016−26, resulting in more than 10.5 million new jobs, or 0.8 percent annual growth. The goods-producing sector is expected to increase by 219,000 jobs, growing at a rate of 0.1 percent per year over the projections decade.[[19]](#footnote-19) Health care industries and their associated occupations are expected to account for a large share of new jobs projected through 2026, as the aging population continues to drive demand for health care services. Several other occupational groups are projected to experience faster than average employment growth, including personal care and service occupations (19.1 percent), community and social service occupations (14.5 percent), and computer and mathematical occupations (13.7 percent).

The California Employment Development Department (EDD) identifies the following industries as most critical for California’s economy in the near future: Trade, Transportation, Construction, Utilities, Health Care, Hospitality, and Entertainment. However, it is also important to look at the core industries driving California’s economic success. Seven key industries fuel and account for nearly 5 million jobs in California. Agriculture is especially vital to the State’s economic strength, as well as Information Technologies, Media Industries, Business and Professional Services, Tourism, Life Sciences, and Heavy Manufacturing.

#### Economic Regions of the State

In a state as large and complex as California, regional characteristics can vary widely and are critical factors in ensuring a match between training opportunities, and regional workforce needs. To meet educational and occupational training needs throughout the State, the State Plan must consider differences in industry needs, economic structure, regional economies, and availability of training resources in the various regions. One measure that varies greatly by region, for example, is unemployment rate: Unemployment rates in different parts of the State ranged from annual average unemployment rates of less than 3 percent in 2019 to unemployment rates of more than 18.6 percent.[[20]](#footnote-20)

Projections of industry growth vary by region as well. For example, northern California is home to technology giants such as Apple, Cisco, Google, and Oracle. The majority of technology companies are located in in Santa Clara County which has become the hub for tech companies and the industries that cater to them. Southern California, on the other hand, is home to the movie studios, television broadcasters, and the industries supporting that entertainment mecca.

#### Statewide Employment Growth by Industry

Short-term and long-term employment growth information is important to CTE planning for the education system to be responsive to and meet the demands of high growth industries. The most recent short-term projections (2016−18) estimate the State’s annual job growth rate to be approximately 1.7 percent. Almost 30 percent of this job growth is estimated to be in professional and business services area. Long-term projections (2016−26) follow the short-term trends. More than 90 percent of the industries expected to experience employment growth over the next decade are “service industries.” The State’s largest growing occupations are expected to generate approximately 6.1 million job openings (this includes new jobs, exits, and transfers).[[21]](#footnote-21)

#### Largest Percentage (Employment) Changes by Industry

The top 10 fastest growing industries in the State account for nearly 60 percent of the projected increase in new jobs in California between 2016 and 2026. Top growth industries include Administrative Services, Health Care, Retail, Hospitality Management and Food Services, and Professional, Scientific, and Technical Services.

According to the California EDD, employment projections for 2016−26, the fastest growing occupations in the State are in the Computer and Health Care industries. Specifically, the top five fastest growing occupations are Home Health Aides, Computer Software Engineers (both Applications and Software Developers), Personal Care Aides, Nurse Practitioners, Taxi Drivers and Chauffeurs. Each of these occupations is expected to increase its number of available jobs by more than 34 percent during this time period.

#### Largest Absolute (Employment) Changes by Industry

The EDD also projects Health Care and Social Assistance industries will add the most new jobs in the next several years, with an additional 607,400 jobs between 2016−26. Industries such as Professional and Business Services (280,200), Leisure and Hospitality (252,300), Trade, Transportation, Utilities (200,200), and Construction (158,600) will also add large numbers of new jobs in the next decade.

Occupations projected to have the largest number of job openings between 2016 and 2026 include personal care aides, cashiers, waiters and waitresses (including fast food), retail sales, laborers, and office clerks. The Personal Care Aides area is projected to see the largest number of job openings, with 1.2 million new and replacement jobs in the next decade.

While many of the occupations with the largest number of job openings are in lower wage and lower skill areas, there are higher wage occupations that will see a large number of job openings as well. Software Developers is projected to gain about 53,800 new jobs between 2016−26. Nurse practitioners and Physician Assistants are both expected to have over 80,000 new job openings between 2016−26.[[22]](#footnote-22)

#### Implications for CTE

The opportunities and challenges created by the State’s complex, diverse economy are important considerations in developing the State Plan. California has a long history of economic growth based on innovation, creativity, opportunity, and entrepreneurship. Growth in the next decade is likely to come from traditional industries (e.g., Construction, Manufacturing, Professional Services), as well as emerging industries (e.g., Computer Technologies, and Biotechnology). CTE must be ready to prepare students for jobs in both emerging and traditional industries while meeting the needs of regional economies. CTE has particular relevance for existing adult workers whose skills must be upgraded in order to help meet the State’s economic potential. The high percentage of small businesses also has implications for how CTE engages its employer communities and suggests the need for employees to develop entrepreneurial, and career management skills among other workplace and technical skills.

### Educational Context

The State Plan is being developed at a time when secondary school improvement is at the top of many educational policy agendas, and when California community colleges are increasingly focused on meeting not only diverse student needs, but the varied needs of business and industry. In California, CTE, in both secondary, adult, and postsecondary, is increasingly seen, by the State, as an important strategy to meet the shifting needs of the labor market. It is believed CTE can address both education outcomes and impact economic development. Furthermore, CTE can potentially play an important role in reducing educational and economic disparities for students from different socioeconomic, racial/ethnic, and who may speak a language other than English. This increased focus on CTE at the national level was codified in the recent reauthorization of the Elementary and Secondary Act. The ESSA took a noteworthy step forward and emphasized the need for students’ career and college readiness. This is a significant change from earlier policies focused only on college readiness.

Recognizing this change at the national level, California developed a new accountability framework, the California School Dashboard, approved in 2016, this includes the College and Career Indicator (CCI). This indicator, one of six included in the California School Dashboard, intends to balance assessment scores, CTE pathway completion, Advanced Placement (AP) and International Baccalaureate (IB) exam performance, dual enrollment, and “A-G” course completion. The addition of CTE pathway completion in the State’s accountability system signifies an important shift from exclusively using traditional academic and assessment metrics to the inclusion of CTE as a valuable part of postsecondary readiness.

Many of the school reform efforts, resource investments and policy changes in recent years have tried to align with research that recognized the potential benefits of diverse options for students. Educational models such as early college high schools, California career academies, and linked learning programs have shown promise as effective models in secondary schools. These alternative models of secondary education all emphasize the elements of rigor, relevance, relationships, and results. CTE addresses many of the components of these various reform efforts. Specifically, CTE:

* Raises rigor by aligning or integrating strong technical content with academic content, thus providing students with the knowledge and skills necessary for success in both the workforce, and in higher education.
* Increases relevance by promoting the integration of career themes and project-based strategies into academic coursework and developing programs that are responsive to the changing needs of the workforce, both in terms of skill requirements and labor market trends.
* Promotes supportive relationships and individualized attention for students, and provides industry mentors and role models for both students and educators.
* Strengthens relationships among the K–12, adult school, and California community college segments, and between education and industry.
* Produces positive results — promotes engagement, persistence, academic achievement, technical skill attainment, self-knowledge, workplace and career management skills, employment, lifelong learning, and long-term career success.

#### Student Preparation

Though projections for student population growth will continue to increase there is evidence that many of the State’s high school and college students are not being adequately prepared for the workforce. This is evidenced by high school dropout rates, generally low academic performance, low secondary-to-postsecondary transition rates for certain populations, and the need for college remediation. According to a 2014 national survey of high school graduates, college instructors, and employers, as many as 50 percent of American public high school graduates are unprepared for both college and work.[[23]](#footnote-23)

California’s high school graduation rates for 2018 remain near an all-time high. Among students who started high school in 2014, 83 percent graduated with their class in 2018, an increase from 82.7 percent from the year before. The State's graduation rate has increased substantially since the class of 2010 posted a 74.7 percent rate. The 2018 rates for some student groups showed slight percentage point increases when compared to 2017: African American students at 0.2 percentage points, American Indian/Alaska Native students at 2.3 percentage points, Asian students at 0.5 percentage points, English Learners at 0.8 percentage points, Foster Youth at 2.3 percentage points, Latino students at 0.3 percentage points, Migrant Education students at 1.3 percentage points, Socioeconomically Disadvantaged students at 0.8 percentage points and Students with Disabilities at 1.3 percentage points. However, much work needs to be done to close the achievement gaps and ensure all students graduate.

The number of 2018 dropouts totaled 48,453, an increase from 45,052 in 2017, resulting in an increase in the dropout rate from 9.1 to 9.6 percent. Another concern is that significant disparities still remain between student groups. Differences among student groups are still wide, even though rates have improved for all sub-groups. Only 73 percent of African-American seniors earned a diploma last year, compared with 93 percent of Asian students, 81 percent of Hispanics and 87 percent of White students. Also trailing were students with disabilities (66 percent) and English learners (68 percent), although the latter does not include the bulk of English learners who have become proficient in English and were reclassified as a result. Only 53 percent of the State’s foster youths graduated last year and 28 percent dropped out. Of the 23,771 homeless students, 69 percent graduated and 18 percent dropped out.[[24]](#footnote-24)

Close to 500,000 Californians in the 18−24 year−old cohort do not have a high school diploma.[[25]](#footnote-25) Further, a large percentage of students drops out as early as Grade Nine. The Grade Eight to Grade Nine transition year is considered to be a particularly vulnerable time for students.[[26]](#footnote-26)In addition, even those who do not drop out until Grade Eleven or Grade Twelve lose interest well before then. In one study, 71 percent of the students who dropped out said they had lost interest in school in Grade Nine or Grade Ten. Nationally, much of the dropping out of school has shifted from the last two years of high school, typical three decades ago, to between Grade Nine and Grade Ten. Census data for California indicates that approximately 5 million adult, age 18 and older do not have a high school diploma or equivalency.

Research shows that CTE can help to reduce the likelihood that a student will drop out of school by offering students a broader array of experiences with clear relevance to life after school. CTE offers students more individualized instruction, mentoring, and service or work-based learning opportunities, all of which are shown to help increase the likelihood that a student will stay in school. In a recent study published by the Thomas B. Fordham Institute found that students with greater exposure to CTE were more likely to graduate high school and students taking more CTE classes are just as likely to pursue a four-year degree as their peers.[[27]](#footnote-27)

#### The Need for Workplace Skills

Increasing the number of students who graduate from high school and are prepared for college-level work is only part of the challenge for California.

By many estimates, at least 60 percent of today’s jobs will be impacted by digitalization, automation, and/or artificial intelligence. That means many workers in California may have to acquire new skills just to stay in their jobs, let alone to advance in their industries. An additional 10−20 percent of jobs are likely to be eliminated and replaced with new types of higher-skilled positions. The impact on today’s workers will require reskilling and retraining. Other projections suggest that by the year 2030, 36 percent of jobs will require “some college,” and an additional 39 percent of jobs will require a college degree. If current trends persist, the population supply will not meet the demand since only 28 percent of the population is expected to have “some college” and 33 percent will likely obtain a college degree.

As the nation continues to shift from an industrial to a knowledge-based economy, individuals with no postsecondary education or training will find it difficult to move beyond subsistence-level jobs. For young adults ages 25–34 who worked full time, year round, higher educational attainment was associated with higher median earnings. For example, in 2017 the median earnings of high school graduates was about $32,000. By contrast, earnings for this same age group with a Bachelor’s Degree was $51,800 according to a 2018 report by the National Center for Educational Statistics.

Beyond the need for high levels of education, the workplace is seeking essential new skills that are not currently being stressed in schools and colleges. Completing programs or taking rigorous courses may not be enough. There continues to be a wide gap between the skills that businesses are seeking and the skills most graduates actually have. This “Skills Gap” is a complex issue and different industries and occupations experience the problem in different ways. In a report from the U.S. Chamber of Commerce Foundation, researchers found that in 12 of the career areas demand for workers exceeded available supply by a total of 4.4 million openings nationwide.[[28]](#footnote-28)

While many employers emphasize such skills as professionalism, teamwork, critical-thinking, and communication as the most important skills for success in the workplace, other employers note deficiencies in key skills from workforce entrants coming in from every education level. For example, employers often cannot find employees with the necessary occupational skill level to be proficient and productive workers.

#### Implications for CTE

The educational context for CTE suggests that better strategies are needed to support students’ academic achievement and persistence at the K–12 level, adult schools, and in California community colleges and universities, and that all students will need a variety of workplace skills that are currently not taught in academic programs nor in traditional CTE programs. A strengthened system of CTE can respond to these needs.

CTE can engage and motivate students who are at risk of dropping out of high school, as well as support and enhance learning for all students. It is important not only for older high school students who may be at risk of dropping out in Grade Eleven and Grade Twelve, or for those preparing for graduation and postsecondary education, training, or work, but also for younger high school students who are at risk of dropping out during Grade Nine, as they seek to find their place and feel competent in larger schools with new sets of peers and increasing academic pressures. It can prepare all students for entry to postsecondary education and careers, laying a foundation that allows students multiple options, with paths directly to work, to the California community college system, or directly to four-year institutions — all as stepping stones to lifelong learning and ongoing career development. It can promote success and persistence in community college and universities by providing focus, motivation, support, tangible skills, academic competencies, and critical thinking skills. Lastly, CTE offers opportunities to develop the full range of workplace skills that adults need to succeed over their lifetimes.

### Policy Context

The policy context for this State Plan is shaped by numerous key workforce development and educational initiatives implemented by the federal government, as well as by state initiatives designed to meet the particular education and economic needs of California.

#### Key Federal Policies

Federal initiatives pertinent to this State Plan include the US Department of Education, Perkins V which amended the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV), the U.S. Department of Labor, WIOA, and the U.S. Department of Education, ESSA.

##### ESSA

The ESSA reauthorizes the Elementary and Secondary Education Act (ESEA), the US national education law and longstanding commitment to equal opportunity for all students. The previous version of the law, the No Child Left Behind Act, represented a significant step forward for our nation’s children in many respects, particularly as it shined a light on where students were making progress and where they needed additional support, regardless of race, income, zip code, disability, home language, or background. The new law recognizes calls from educators and families to create better laws that focused on the clear goal of fully preparing all students for success in college, and careers.

ESSA includes provisions that will help to ensure success for students and schools. The law advances equity by upholding critical protections for America’s disadvantaged and high-need students. For the first time, this new law requires that students be taught to high academic standards that prepare them to succeed in both college and careers. ESSA maintains an expectation that there will be accountability and action taken to effect positive change. ESSA further ensures that vital information is provided to educators, parents, students, and communities through measures of students’ progress.

##### Perkins V

Perkins V, provides approximately $127 million annually in funding to supplement and improve California’s CTE programs, integrate academic and career technical instruction, and to specifically address the needs of students who may be members of special populations. Building on the success of Perkins IV, Perkins V intends to provide increased focus on the academic achievement of CTE students, strengthen the connections between secondary and postsecondary education, increase stakeholder involvement, enhance efforts to serve special populations, and improve state and local accountability. In order to gain eligibility for federal funding under Perkins V, states are required to submit state plans, which are intended to describe all of their CTE activities and how the Perkins V funding will enhance these efforts. Perkins V also requires local recipients to conduct a comprehensive local needs assessment, emphasizing data-driven decision making.

##### WIOA

The WIOArevitalized and transformed the public workforce system so that it reflects the realities of the 21st century economy and meets the needs of job-seekers, workers, and employers. The WIOA includes reforms that will affect more than a dozen programs receiving $10 billion in annual training and education funding, and programs that serve approximately 20 million Americans each year. The act intends to improve coordination between and among agencies so that workers and job seekers have more seamless access to a system of high-quality career services, education, and training through the AJCC service delivery system, known as the American Job Centers. The act also ensures the measurement and public reporting of the performance of education and training providers so those seeking services can have access to provider performance information that will help them make informed choices about which training or education programs to pursue.

Under the WIOA, businesses will inform and guide the workforce system, ensuring that services are well aligned with their workforce needs. Workforce boards implement industry or sector partnerships and use high-quality worker training, including proven strategies such as apprenticeship, to ensure businesses have a pipeline of skilled workers.

With the passage of these three reauthorizations Perkins V-funded activities will align with both WIOA, for the purpose of leveraging workforce development resources, and ESSA, for the purpose of promoting academic rigor. For the first time in history, these three programs are becoming more aligned particularly in the area of measuring success. Alignment with WIOA occurs through coordination of planning and implementation efforts; alignment with ESSA occurs through the implementation of some of the same accountability measures as defined in Perkins V.

#### Key State Policies

Workforce development and educational initiatives in California are inextricably linked — both working toward the common goal of ensuring both individuals’ economic security and career fulfillment and continued economic growth of the State.

##### Workforce Development Initiatives

State-level initiatives have paralleled federal initiatives. California’s Strategic Workforce Development Plan, developed through the CWDB, is the reorientation and realignment of California’s workforce programs and institutions to support a successful state economy.

##### The Breaking Barriers to Employment Initiative

This is an initiative intended to supplement existing workforce and education programs by providing services to ensure the success of individuals either preparing to enter or already enrolled in workforce and education programs. The individuals with barriers to employment completing these programs should have the skills and competencies necessary to successfully enter the labor market, retain employment, and earn wages that lead to self-sufficiency, and eventually, economic security. These services must be delivered through a collaborative partnership between mission-driven, community-based organizations with experience in providing services to the target population and local CWDBs.

##### English Language Learners and Immigrant Workforce

The California Labor and Workforce Development Agency and the CWDB awarded $2.5 million to five local workforce boards to implement a workforce navigator pilot program to help English language learners and immigrant workers with career and supportive services that lead to jobs. The project focused on aligning job training, adult education and support services for individuals with limited English-language proficiency.

The navigator program provided case management and referrals to support services helping immigrants and those with language barriers receive the education and skills needed.

##### High Road Training Partnerships

The High Road Training Partnerships (HRTP) initiative is designed to model partnership strategies for the State. Ranging from transportation to health care to hospitality, the HRTP model embodies the sector approach championed by the CWDB to advance a field of practice that simultaneously addresses urgent questions of income inequality, economic competitiveness, and climate change through regional skills strategies designed to support economically and environmentally resilient communities across the State.

##### Slingshot

SlingShot is a program focused on strengthening regional collaboration. Its purpose is to bring together government, community and industry leaders to work strategically to tackle employment issues across California. Through collaboration, partners are working to stimulate economic growth, create jobs and build the talent needed to increase income mobility and regional prosperity.

Each region in California has created a Coalition, tasked with developing an action plan that addresses specific regional challenges to economic opportunity and growth. These Coalitions, led by industry champions, have the autonomy to execute their action plans and implement their regional strategy with the support of the SBE.

In 1993, legislation was passed in California to promote economic development strategic planning. A bipartisan California Economic Strategy Panel was created to develop an overall economic vision and strategy to guide public policy in shaping a prosperous future for California. The California Economic Strategy Panel examined regional patterns of employment as well as opportunities for growth and expansion in specific industry sectors. In its 1996 report, *Collaborating to Compete in the New Economy, An Economic Strategy for California,* the Panel articulated its primary recommendation for sustaining the new economy: Improve the preparation of the workforce. Doing so required “…the development and implementation of a new policy framework for a competitive and coherent workforce preparation system that is consistent with the new economy and that supports emerging clusters.”

### CTE Initiatives

Consistent with workforce development policies aimed at strengthening California’s labor force and economy, policymakers in California have renewed their commitment to CTE. In the educational arena the focus of recent policy initiatives is not only on ensuring a highly qualified workforce for existing and emerging industries, but ensuring students have the academic, employability, and career management skills they will need to realize their personal goals. Through legislation and budget initiatives, policymakers are addressing such issues as the need for high standards in CTE, the need for state-of-the-art facilities, the need for seamless pathways from secondary to postsecondary education, and the shortage of qualified CTE teachers and counselors, among others. Below is a brief synopsis of a few key initiatives.

##### CCPT

TheCCPT was created and passed by the State Legislature in the 2013−14 education budget through Assembly Bill 86. The budget appropriated $250 million for one-time competitive grants to consortia of school districts, charter schools, community colleges and businesses. The aim of the program was to:

* support seamless career pathways from grades K−14;
* promote cross-sector collaboration in support of effective CTE;
* develop programs of study aligned to high-need, high-growth sectors;
* establish articulated pathways to postsecondary education; and
* leverage existing funding and programs to sustain strong career pathways.

The legislation also required grant recipients and private-sector partners to commit additional resources through matching funds.

As a competitive grant, the CCPT provided an opportunity for the CDE to define the components of high-quality career pathways, focus on alignment of secondary and post-secondary career education, and encourage quality practices such as dual credit courses and student and teacher internships.

In 2014 the State Legislature affirmed its support for the program with Senate Bill 858, which formally established the CCPT and appropriated an additional $250 million to support a second cohort of grant recipients. In 2015, additional grants amounting to $4.5 million were awarded through this set-aside to support consortium development and implementation.

##### CTEIG

Initially funded through the Budget Act of 2015, the CTEIG was established as a $900 million three-year limited-year grant program. In 2019, the CTEIG was made permanent with an annual allocation of $150 million per year to support and expand CTE programs leading toward a successful transition to postsecondary education and careers. The CTEIG reflects State Legislators’ and Governor’s recognition of the critical need for high-quality, sustainable CTE programs that prepare students for success in California’s labor market.

##### K−12 SWP

In 2018−19, *EC* Section 88827 established the K−12 component of the Strong Workforce Program appropriating $164,000,000 in annual ongoing CTE funding to strengthen the pathways for students from secondary to postsecondary education. The K−12 SWP intends to develop, support, and/or expand high-quality CTE programs at the K−12 level. This program, administrated by the CCCCO in partnership with the CDE, aligns with the workforce development efforts occurring through the CCCCO’s Strong Workforce Program and intends to improve transition from secondary education to postsecondary education.

##### Strong Workforce Program

The 2016−17 California state budget provided $200 million in ongoing funding to the CCCCO to create the Strong Workforce program. In 2017−18, the State provided $248 million adding a new annual recurring investment of $248 million to spur CTE in the nation’s largest workforce development system of 115 colleges. This new ongoing funding is structured as a 60 percent Local Share allocation for each California Community College District and a 40 percent Regional Share determined by a regional consortia of colleges to focus on the State’s seven macro-economic regions. Both the Local and Regional Shares require local stakeholders to collaborate, including industry and local CWDBs. This program builds upon existing regional partnerships formed in conjunction with the federal WIOA, state Adult Education Block Grant and public school CTE programs.

##### The CTE Facilities Program (CTEFP)

The CTEFP was established by Article 13 of the *Kindergarten University Public Education Facilities Bond Act of 2006*, Assembly Bill 127, Chapter 35, Statutes of 2006. California *EC* Section 17078.72 authorizes the issuance and sale of state general obligation bonds to provide aid to LEAs to reconfigure, construct, or modernize CTE facilities, and/or purchase equipment for CTE programs and to joint powers authorities to modernize CTE facilities and/or equipment.

Through a competitive grant process, the purpose of the CTEFP is to provide matching funds for the purposes of CTE specific new construction, modernization, and/or equipment.

## Chapter Three: Building a High-Quality CTE System

California is at an important crossroads as it continues to improve strengthen and expand the delivery of CTE and the skills of the California workforce. New demands from the 21st century workplace and rapid globalization, shifts in the State’s demographics including immigration and baby boomer retirements, and pressures to improve outcomes for K–12, adult school, and community college students, are creating a new urgency for increasing the pace of CTE reform begun in previous decades. Education must keep pace with the realities of a changing world.

Many new priorities are reflected in the recent work by the CWPJAC, as defined by their Guiding Policy Principals, described later in this chapter. The emerging emphasis on regional partnerships, regional program development and implementation, and powerful economic changes all contribute for the need to strengthen California career pathways. In California, given vast regional differences and powerful economic and demographic forces, completion of high school and ongoing training or education has become essential to individuals’ economic security and quality of life. With support from the current Governor and many other policymakers, California intends to leverage state and federal efforts to improve the entire CTE system — to move toward a more coherent, world-class delivery system that serves as the primary engine for the State’s workforce and economic development, and as a key vehicle to engage students in learning.

The State’s shifting economy has created a need for new knowledge, skills, and attitudes in the workplace. Employers view skills such as communication, critical thinking, problem solving, and teamwork as essential prerequisites for work. They also want employees with basic academic knowledge and skills, a high school diploma or college degree, and appropriate levels of training or certification in their respective industries. Equally important, individuals must be self-motivated and able to continuously learn and manage their careers in response to ongoing and rapid change. Individuals must be given access to a world-class workforce development program that supports their aspirations and improves their quality of life.

These skills are essential to success for all working adults, be they artists, scientists, nurses, or carpenters. They are, further, essential to society in addressing the challenges posed not only by a changing economy, but a changing world. CTE can therefore no longer continue to exist as a separate educational alternative; it must be woven into the very fabric of our educational delivery system. CTE — with its focus on rigorous and relevant content, hands-on learning, supportive relationships, and demonstrated outcomes — can set the standard for the kind of challenging, engaging, student-centered instruction that the CWPJAC recognizes as required for students of all ages to succeed. Integrated thoughtfully with the strong academic preparation and guided by basic principles of youth and adult development, CTE can complement and enhance learning in all disciplines, reinforcing rather than compromising the tenets of a liberal arts education, while preparing students for their future endeavors.

In this spirit, the CWPJAC has made it a priority to pivot towards purposeful integration of the student experience across systems and into college and career with the dream of an overall statewide CTE system that can engage and prepare students of all ages for fulfilling careers and lifelong learning, while addressing the workforce needs of the new economy.

Policymakers and other stakeholders from across the State, including representatives from K–12, adult school, and postsecondary education as well as business and industry, developed a conceptual framework for moving toward this ideal CTE system. The framework — including a vision, mission statement, goals and needed actions — provides both the scaffolding for the State Plan and a blueprint for strengthening CTE overall.

### Vision

The vision for California’s CTE system describes where the State wants to be in the future, sets the stage for building a new student-centered system, and inspires action.

**NOTE: FOCUS OF NEXT STAKEHOLDER MEETING THE BELOW IS A PLACEHOLDER**

*CTE will engage every student in high-quality, rigorous, and relevant educational pathways and programs, developed in partnership with business and industry, promoting creativity, innovation, leadership, community service, and lifelong learning to provide all learners the opportunity and support necessary to realize their full potential.*

### Mission

The mission statement defines the role of CTE in propelling the State toward its vision.

**NOTE: FOCUS OF NEXT STAKEHOLDER MEETING THE BELOW IS A PLACEHOLDER**

*The mission of CTE is to build industry-linked, aligned, equitable, and accessible high-quality K–14+ college and career pathways that enable all individuals to experience academic success and reach their career goals in order to achieve economic self-sufficiency, compete in the global marketplace, and contribute to California’s economic prosperity.*

### Guiding Policy Principles to Support Student-Centered K–14+ Pathways

In order to achieve this vision and respond to our mission, the CWPJAC established the *Guiding Policy Principles to Support Student-Centered K–14+ Pathways* (Guiding Policy Principles) (Appendix D)*.* With a focus on all students and ensuring the best possible opportunities for students, the Guiding Policy Principles inform the State vision and mission.

The Guiding Policy Principles take a student-centered approach to the delivery of services, promote equity and access, and are intended to achieve system alignment through continuous improvement and capacity building, and ensure that state priorities lead the State Plan.

This State Plan is grounded on the following Guiding Policy Principles to:

1. Focus on a **Student-Centered Delivery of Services** for all K–14+ college and career pathways, which accommodates multiple entry points to facilitate students’ needs to build their skills as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.
2. Promote **Equity and Access** by eliminating institutional barriers and achievement gaps for all students to realize their educational and career aspirations.
3. Achieve **System Alignment** in the economic regions of the State in order to create a comprehensive and well-defined system of articulation of high-quality K–14+ pathway courses (i.e., both in-person and online) and work-based learning opportunities with a specific emphasis on CTE. Bring greater coherence to programming, common use of terminology, appropriate data collection and sharing, and attainment of student outcomes in a timely way that lead to upward mobility in California’s industry sectors. System alignment allows for greater student portability and career advancement.
4. Support the **Continuous Improvement and Capacity Building** at all levels and components to ensure smooth transitions in the system and focus efforts on implementation of state standards, attainment of student outcomes, and a strengthening of California’s regional economies.
5. Ensure that **State Priorities and Direction Lead the State Plan** with opportunities in Perkins V leveraged to assist in accomplishing the State goals and objectives for student achievement, also known as “the California Way.”

The vision, mission, and Guiding Policy Principles provide a framework that demands commit­ment from the full range of state and local stakeholders to improve CTE and the education system as a whole. Achieving this vision will require systemic collaboration across the full spectrum of an individual’s life from K−12 and postsecondary education into the workforce. The success of this vision is incumbent upon the support and commitment of the people—the leaders, practitioners and partners at every level—who are the key to advancing these actions and turn policy into practice.

### System Goals

**NOTE: NEED TO REVIEW WITH STAKEHOLDERS**

Consistent with the vision, mission, Guiding Policy Principles, and the essential elements, the Statewide Advisory Committee developed the following system goals that will guide CTE in California. The following goals provide direction for establishing objectives that are realistic, attainable, timely, and measurable:

* All students completing high school will be prepared for success in postsecondary education — including community college, four-year college, apprenticeship, adult school, trade school, military, or other education and training — *and* for employment and long-term careers.
* Adults in California will be prepared with the skills and knowledge needed to reach their career goals and maintain economic self-sufficiency, through access to information, guidance, support services, and educational opportunities offered in adult schools, ROCP, and California community college programs.
* Every student will have the opportunity and the support necessary to complete a rigorous CTE course or pathway prior to graduating from high school.
* Age-appropriate career guidance information and experiences will engage all students throughout their K–14 educational experience in exploring, planning, managing, and reaching their educational and career goals.
* All CTE courses and programs will be based on industry-endorsed standards, and designed to assist all students in acquiring employment readiness and career success skills.
* All CTE courses and programs will meet documented labor demands, including those of new and emerging occupations.
* Statewide programs of study, dual enrollment, articulation of coursework, guided pathways, and related processes will be established to facilitate smooth student transitions from middle school to high school, and into postsecondary education and training.
* Business, industry, and labor participation will be incorporated into all components of the CTE system at the local, regional, and state levels.
* Teacher preparation programs, specifically in CTE, and sustained PD will be substantially expanded to ensure an adequate supply of highly prepared instructors. Teachers in all industry sectors and at all educational levels will have the skills necessary to provide rigorous and relevant instruction designed to meet diverse student needs.
* Comprehensive data collection systems will be developed and coordinated to support ongoing program improvement, program accountability, measurement of system outcomes, and research.

Achieving these goals requires focused attention and strategic investments in both the CTE system overall and its component parts, at the State, regional, and local level.

In addition, to achieve the CTE goals stated above, not only must the specific responsibilities appropriate to each level be clearly delineated, but resources must be designated accordingly. Local and regional activities are supported through state apportionment and grant dollars, including both state and federal funds. At the State level, the CDE and the CCCCO must also be supported to exercise the leadership required to further develop and expand CTE for the benefit of all students.

**Figure 8. CTE as a system that nests local activity within  
regional and state-level work**

NOTE: Need to add chart

### Essential Elements of a High-Quality College and Career Pathway

To realize the Guiding Policy Principles outlined above, California recognizes the importance of creating student focused essential elements of a high-quality college and career pathway:

1. Student-Centered Delivery of Services
2. Equity
3. Access
4. Leadership at All Levels
5. High-Quality, Integrated Curriculum and Instruction
6. Skilled Instruction and Educational Leadership, informed by Professional Learning
7. Career Exploration and Student Supports
8. Appropriate Use of Data and Continuous Improvement
9. Cross-System Alignment
10. Intentional Recruitment and Marketing (Promotion, Outreach, and Communication)
11. Sustained Investments and Funding through Mutual Agreements

The 11 Essential Elements of High-Quality College and Career Pathways are intentionally aligned with the Guiding Policy Principles developed by the CWPJAC. All must be present to ensure that California can realize its goals of preparing all students for the future and ensuring a strong economy. In addition, these components define high-quality CTE at the regional and local level and are further mirrored in individual career pathways that may be implemented in specific schools and colleges. In other words, CTE is a system that requires leadership, high-quality practice, coherence, skilled practitioners, and accountability at all levels.

Implicit in the concept of levels of activity is the issue of division of responsibility among state, regional, and local agencies. Given that California, is by design, a “local control state,” there is an interplay between the need for local control and the need for state involvement and regional structures. Local control can foster timely responsiveness to local communities and promote innovation. Concurrently, state involvement is needed to develop policies, provide oversight, monitor the attainment of statewide goals, and program effectiveness, and at the same time can promote economies of scale, the spread of effective practices, and more streamlined processes for students, faculty, and industry across the State. Additionally, in large part because of the size of California, a regional approach is often the most appropriate, particularly for addressing the needs of regional economies; it addresses the need for responsiveness, on the one hand, and coordination, on the other. This interaction across levels is evident in each of the 11 essential elements and must be addressed at each stage of system development to ensure the most effective, equitable, and efficient use of resources.

In addition, as mentioned in the beginning of this chapter, key themes are infused throughout these 11 essential elements:

* Building a demand-driven CTE system by responding to real workforce development needs and state, regional, and local labor market realities and priorities, through strengthened curricula, PD, data collection and use, and direct linkages with business and industry
* Ensuring access for all students to CTE courses, pathways, and programs of interest; to highly skilled instructors; and to facilities and technologies that make all CTE options available regardless of location and enrollment limits
* Realizing the concept of lifelong learning, spanning from early childhood through adulthood’s many transitions, in ways that promote career awareness and management as appropriate throughout the continuum
* Leveraging the current momentum of high school reform, with its renewed focus on rigor, relevance, relationships, and results, to promote CTE as a means to engage students, instill a passion for learning, and improve student outcomes
* Viewing CTE systemically by taking a broad perspective in planning for how CTE from kindergarten through lifelong learning can contribute to California’s economic future, rather than focusing on discrete secondary or postsecondary programs or specific funding streams
* Promoting the continuous improvement of CTE services and impact through the alignment of standards, curricula, assessments, and PD, as well as through support for local agencies in achieving performance goals for students’ academic and technical skill attainment

What follows is a description of each of the system elements. Each description includes a definition of the element, a brief overview of current key activities, and a discussion of critical strategies required to move the system forward in that area. As with any system, the elements are interrelated. Therefore, while every attempt has been made to define each element as a discrete category of activity, in some cases, the associated strategies appear in several categories.

#### Student Centered Delivery of Services

Delivery of services using a student-centered approach for all K–14+ college and career pathways incorporates the removal of institutional or systemic barriers that impede the progress of students in achieving their education and career goals. This includes a renewed commitment to offer an engaging learning experience and support the diversity of individual student needs while accommodating their multiple entry points as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.

##### Rationale and Significance

Student-centered delivery of services involves a wide variety of educational experiences, learning activities, and support strategies intended to address the distinct learning styles, interests, aspirations, needs, or cultural backgrounds of individual students. This approach includes adapting instructional strategies and curriculum content to align with what students needed to know or what methods would be most effective in facilitating learning for individual students or groups of students. This includes employing a wide variety of instructional methods and instructional strategies in the classroom, including modification of assignments to meet each individual students’ education needs. This approach shifts the learning from the teacher to the student and presumes that each student is unique and learns in their own ways.

Creating a student-centered learning environment begins with the teacher acknowledging all students learn differently. Individual teachers do this in many different ways, for many this comes from their own experiences as learners. If the delivery of services is done in a student-centered way, learning takes place on an individual basis student–by–student and the teacher has a deep understanding of the students as learners.

The student–centered environment requires educators to actively collaborate, use researched practices, and engaging activities, along with insight, empathy to create an environment conducive to different types of learners.

This shift in classroom dynamics toward a view of the student as the key agent in the learning process challenges traditional classroom instruction predicated on the active role of the instructor and the passive role of the student. In student–centered learning, the instructor’s primary responsibility is to create conditions that support student engagement in the learning process.

Services delivered with a student-centered focus empower students to succeed through individualized instruction putting them at the center of their learning. CTE and career pathways in particular provides active learning experiences enabling students to apply practical skills to real-world scenarios. In a career pathway program students can benefit from continual feedback provided by a variety of supports embedded into the courses.

CTE courses naturally and by design tend to be more student-centered than other courses students may take. CTE with its focus on skills development differs from traditional and university based education, which is often a theory based system. The vast amount of time students spend in CTE courses is time spent on hands-on experiences, the application of skills, practice and improvement in an area which holds an interest to the student.

##### Current key activities and initiatives

When a district focuses on student-centered delivery of services, students feel supported, valued, and part of a family. Career pathways achieve this feeling through consciously creating strong teacher-student relationships, teaching teamwork, and providing a personalized learning environment in which each student’s learning needs are well known and individually addressed. Daily instruction is designed with the knowledge that students vary in their preferred method of gaining information, understanding ideas, and demonstrating mastery.

This State Plan provides educators with the opportunity to rethink career pathways to be more student-centered by aligning CTE to other local, and regional continuum of education and training.

The most common strategies reported by the 49 responding secondary site leaders for supporting inclusion of ELL and Special Education students in pathways are additional tutorial and enrichment programs (81%), and professional development for teachers on scaffolding and differentiation (70%) and on instructional strategies for academic language development (68%). Over half of secondary site lead respondents reported using alternative assessments and mainstreaming approaches to increase access to pathway courses for Special Education students.

##### Needed Actions for Change

The following strategies have been identified as essential to establishing student-centered CTE pathway programs:

* Engage stakeholders to redefine student success by articulating the knowledge and skills students should have upon completing a CTE program or pathway.
* Develop dual-credit and concurrent enrollment programs to allow students to earn credit and skills based upon mastery not seat-time.
* Consider the opportunities to align local CTE plans with ESSA plans and LCAPs to advance innovation in CTE programs, such as competency-based and personalized learning to meet the needs of diverse learners and empower students towards reaching their goals.
* Empower students by providing opportunities to participate in a CTSO to develop strong leadership skills, being part of a team, learn social skills, participate in the community, and give them a clearer idea about their future career path.
* Enhance CTE and work force training to meet the demands of regional economies and the statewide labor market.
* Create better data systems and tools on student outcomes to identify gaps in student performance.
* Utilize pre and post assessments to determine student’s prior learning, identify gaps, and assess growth.
* Develop stronger relationships with business, and other community stakeholders to help in pathway design, implementation, and maintenance.
* Provide sustained, intensive, and focused professional development opportunities for administrators, teachers, and faculty foster pathway design, implementation, and coordination.
* Develop stronger transitions between grade levels particularly between secondary and postsecondary to create a smoother continuum of education and training.

#### Equity

Student equity goes beyond the reduction of institutional barriers to create an environment of being fair, impartial and free from bias or favoritism, promote educational and employment attainment, and to eliminate the achievement gap for all students including, but not limited to, English language learners and students with disabilities in the K–14+ college and career pathway system.

##### Rationale and Significance

CTE program design must include a strong focus on *all* students’ readiness to succeed in both education and training after high school and the twenty-first century labor market. Entry into the labor market may occur during school, after graduation, during or after postsecondary education or training, or even after receiving a degree and returning to a community college (reverse transfer). So, career pathways need to be designed with this in mind and develop programs with multiple entry and exit points. A well-conceived CTE plan will provide a strong foundation for success no matter when a student chooses to join the workforce.

An equitably designed instructional program includes integrated supports that increase access to the instructional program for all students including students underrepresented in career pathways such as English language learners and students with disabilities.

The consideration and accommodation of the needs of every student means more than just access to a course. Equality of opportunity extends to providing physical and instructional adaptations to meet students’ individual learning needs—whether primarily for support to complete basic classes or for additional challenges in the traditional system. An effective equity approach for CTE requires planning, attention, and application of resources. Because differences among students are not always immediately obvious or easily addressed, CTE instructors and administrators must identify and meet multiple and sometimes conflicting needs within a single class.

Students who have been identified as having special needs may have 504 plans or individualized education programs (IEPs), as required by law. These plans may call for modifications, either curricular or adaptive, in order to allow these students equal learning opportunities. Many resources are available to CTE instructors to help implement 504 plans or IEPs. Funding and space for adaptive technology and other physical accommodations must be provided as necessary to meet the specifications of those plans. Special education teachers, local specialists, the child’s parents, and other members of the IEP team can help and support CTE teachers to understand and how best to meet a student’s needs.

For students who may by non-native English speakers, various instructional techniques should be employed to reach students experiencing different levels of comprehension and fluency in English. Instructors should meet with a language support teacher or specialist in the school or district for ideas about support and curricular modifications, for example. Teachers must be prepared to address the needs of increasing numbers of California high school students who are experience English as a second language.

It is essential to be especially sensitive to language and cultural issues affecting student performance and recognize situations where cultural differences or language barriers are inhibiting understanding. In this area CTE has a particular advantage over many traditional academic subjects because of its effectiveness in providing several modes of learning and assessment. CTE students can demonstrate their understanding not only through language-based assessments, such as written tests or oral examinations, but also through performance or project-based assessments. CTE has opportunities to assess understanding in ways less dependent on English literacy and, simultaneously, increase English language skills through instruction in the subject area.

It is critical for all students, particularly non-native speakers to have a firm understanding of the vocabulary in any specific pathway. Instructors must understand many students may struggle with pathway vocabulary and provide supports for vocabulary development.

CTE pathways need to recruit students of both genders into programs. The value of diversity and the importance of gender equity are key items to be emphasized during recruitment. Unspoken stratifications between students “destined” to become blue- or pink-collar workers and those “suited” to white-collar professions can develop early and affect student enrollment and performance in CTE and academic courses. Well-planned recruitment and retention efforts can help prevent these divisions from developing or persisting. Although significant inroads have been made, women in the workforce continue to dominate many of the careers with the lowest pay and fewest benefits and are a notable minority in many highly paid, high-status careers. Gender-equity initiatives help schools to serve all students better the elimination of sex or gender bias in teaching practices and curriculum, and support for instruction in gender-equitable career pathways. The Joint Special Populations Advisory Committee (JSPAC) maintains a Web site at <http://www.jspac.org/> that provides many excellent gender equity and nontraditional CTE resources.

Economically disadvantaged students may carry burdens into the classroom that are not immediately evident. For example, because they may be needed at home to take care of younger siblings periodically on school days, they may fail to attend regularly. Or they may work long hours to help support the family. Others may come to school suffering from hunger or cold, lacking adequate medical or dental care, or experiencing other problems that can impede their learning. These barriers can be identified at the classroom level and referred to a student study team or counselor for assistance.

As stated above, because specialized vocabulary is a part of virtually every

CTE course, economically disadvantaged students will particularly benefit from direct supports and performance assessments to help bridge the gap in their background knowledge.

Promoting a culture that values equity and diversity within the education system can help to address the historical and present-day injustices in our society and education models to close the equity gaps between historically underserved students in CTE programs. Inequity can exist in any environment. In education often times these inequities are unintentional and inadvertent, but often caused by carelessness. Developing equitable career pathways requires purposeful consideration and intentionality to avoid bias. The first step is to acknowledge that inequity is a problem and that educators need to promote a culture that values equity and diversity within the education system and workforce. Career pathway educators and administrators must commit to transparency and advancing only high-quality career pathways that are diverse, equitable, and focused on ensuring student success.

In order to avoid the perception that CTE is a second-class option for students. Career pathways must be developed that are seen as a practical path to earning a postsecondary credential that students can use to be successful in the ever evolving workforce. This can be done by implementing strategies to gain buy-in from communities, business, industry, and other stakeholders. Once new strategies are determined to be successful, CTE practitioners need to celebrate these successes and replicate these successful practices and programs.

CTE can no longer be considered an alternative path for students who are not going to college. Instead, career pathways can become a viable option for students that gives them the foundation to be college and career ready. High-quality career pathways focused on equity can help students get ahead while still in high school.

##### Current key activities and initiatives

JSPAC

##### Needed Actions for Change

The following strategies have been identified as critical to cultivating equity in CTE:

* Eliminate bureaucratic and financial incentives for maintaining CTE as a silo of isolated activities. Instead, promote integration of CTE activities within mainstream education reforms.
* Develop expectations for the outcomes of career pathway programs that institutionalizes and brings to reality the career and college for all rhetoric, and fold these indicators into the primary state accountability systems for schools and districts.
* Providing equitable access to new digital resources to ensure equitable access to future college and career options.
* Provide training to CTE educators and leaders in culturally relevant teaching and learning.
* Train educators on how to serve students who are members of special populations, including providing professional development opportunities, for CTE educators for specific subgroups such as English Language Learners, students with disabilities, and students from historically marginalized communities.
* Closely monitor and audit career pathway program to identify equity gaps that may exist for students who may be members of special populations.
* Districts and regional efforts with successful, collaborative approaches to CTE should be identified and illuminated by the state to support and inspire other collaborative efforts to improve equitable and career pathways.
* Ultimately, the voices of educators, state agencies, business and community leaders, and education advocates must be raised across the state to share the vision for CTE and the benefits for all students.
* Market and promote CTE pathway programs locally, regionally, and state-wide to overcome gender biases and cultural stigmas.

#### Access

Access denotes a broader vision of equity ensuring that all students are provided ample opportunities to attain the necessary skills, education and training required to maximize their individual goals including a collective awareness of all the supports that are available to students both inside and out of class. Access also facilitates the elimination of the achievement gap by providing information on how to access programs, services, and rigorous course work for all California students regardless of region, gender, socio-economic status, special needs, and/or English proficiency. Access also includes creating pathways with demonstrable careers for students.

##### Rationale and Significance

There exists a need to change the systems and structures that have been put in place to disadvantage traditionally underserved students. Historically, low-income students and students of color were inadequately placed in low-quality CTE programs that did not set them up towards a pathway to success. There is a need to redesign CTE pathways to be more inclusive with intentionality toward appropriately placing students based on career interest and aspirations and equipping them with the requisite postsecondary success skills. This can’t be achieved without culturally relevant instruction, personalizing learning based on student goals and meeting students where they are in their learning and development.

In past decades, some students were often steered toward college while others were defaulted into CTE programs. The push toward “college for all,” has resulted in many high school students being denied access to high-quality CTE courses. The redesign of the California Model Curriculum Standards, partnership academies, CCPT, CTEIG, and other recent efforts has allowed the development of CTE courses and career pathways with a combined academic focus. CTE has become more and more for all students, shown to boost high school graduation rates and give students essential skills necessary for college. It is now time to stop thinking about CTE as only serving some students, but as a unique way to serve all students. CTE should no longer be thought of as an alternative to college prep but as a pathway into postsecondary programs. Through this lens, high schools should be redesigned to provide every student with the opportunity to meet university entrance requires while completing a career pathway.

A study conducted by the Education Trust in 2016[[29]](#footnote-29) found that despite the rhetoric around college and career readiness for *all* students, just 8 percent of high school graduates complete a full college- and career-preparatory curriculum and nearly half of graduates complete neither a college- nor career-ready course sequence. Rather than aligning high school coursework with students’ future goals, high schools are prioritizing credit accrual, which treats high school graduation as the end goal. It is time to how to help students’ link academic and career courses to their interests and postsecondary goals. It is especially important for students to learn about the broad array of careers and not only choose

Students repeating academic courses for graduation are denied access to CTE

Students who don’t know about CTE are denied access

It is essential to examine data at the course and individual program levels, including enrollment categories of ethnic and racial, special needs, gifted, and gender, to clarify the extent to which efforts to recruit all students into CTE are being successful. It is especially important to consider equity enrollment in courses leading to high-skill, high-wage, high-demand jobs.

##### Current Key Activities and Initiatives

Since the implementation of California Partnership Academies, career pathway programs have strived to overcome the stigma of being thought of as just an alternative to college, but as providing the foundation to earning postsecondary credentials and degrees. Academies incorporate many features of the high school reform movement that includes creating a close family-like atmosphere, integrating academic and career technical education, and establishing viable business partnerships. Emphasis is also placed on student achievement and positive postsecondary outcomes. By law, at least half of each new class must meet specific “at-risk” criteria to determine student eligibility. The remaining one half has no restrictions.

Often times, academies have a larger proportion of underserved students, some even exceeding the school population percentages. For example, Stern (2015) cites two studies by the College and Career Academy Support Network (CCASN) of California Partnership Academies (CPAs), which showed greater representation in career academies of students meeting criteria for being “at risk” (low income, low grades and tests scores, poor attendance). However, Stern attributes this finding to the law governing CPAs, which “requires that at least half the students entering an academy in grade 10 must meet specified ‘at risk’ criteria”. Another CCASN study cited by Stern found that “academy 10th and 11th graders generally do come from families with lower income and lower parental education, compared with non-academy students in the same high schools”.

Throughout the last several years, districts implementing career pathway programs have developed structures to support student recruitment and placement that respond to both student choice and equitable access. They structure programmatic ways for middle schools to introduce students to pathway themes early, such as elective “wheel”[[30]](#footnote-30) courses, career fairs, information nights, outreach activities, and other events. They sometimes filter student applications for pathways using lotteries to ensure diversity in pathways, and they often target recruitment efforts to address specific disparities in enrollment patterns. The systemic design of equitable pathways includes ensuring that all pathway choices offer access to the full range of post-secondary options in the career field. Often times, districts overcome access barriers to pathway programs by providing support to avoid limitations such as a student’s ability to pay for transportation, by a student’s past academic performance, or by a lack of accessible information.

Taking a systems approach to career pathway development includes many considerations to enable equitable access to students’ pathways of choice. These include transportation both to the pathway of choice, and the full range of opportunities these pathways offer, communication to students and their families so that they are fully informed of options, and data systems that can identify students in need of support, monitor student outcomes to ensure that pathways serve all students well, and provide information to postsecondary partners to support student transition.

##### Needed Actions for Change

The following strategies have been identified as critical to improving access to career pathway programs:

* To enable equitable access, continue support for CTE courses in the academic core, establish structures to provide early college credit and honors credit for those CTE courses where possible, and support schools to incorporate them into their pathway programs of study.
* Expand opportunities for every student to explore, choose, and follow a vertically-integrated career pathway to earn credentials of value.
* Build in flexibility so students don’t encounter dead ends or wrong doors. And have a wide range of ways to speed up their progress, from competency-based models, to dual-enrollment programs, and early college high schools.
* Provide all students with access to work-based-learning opportunities, career education and postsecondary planning, and embedded student supports within the pathway.
* Create programmatic student supports and integrated career pathway programs for all students to be able to access both college and career Monitor CTE programs to ensure students have meaningful access to CTE programs and career centers.
* Reinforce the consistent use of data to identify interventions that can improve equitable access, in recruitment and in all program resources.
* Continue support for CTE courses in the academic core, establish structures to provide early college credit and honors credit for those courses where possible, and support schools to incorporate them into their pathway programs of study.
* Make completing a career pathway a requirement for high school graduation so all student have access to learning basic employability and job readiness skills.
* Support, assist or incentivize districts to revisit how time is organized to maximize student access to college and career preparation, including work-based learning opportunities

#### Leadership at all Levels

Leadership at all levels is required to achieve greater integration across systems and programs to ensure that the contexts for an engaging learning experience can occur and programs connect, so all students can reach across systems easily and succeed with their desired outcomes including employment, and employers have the workforce needed to thrive.

Institutional commitment and leadership at every level, including the institutions’ governing boards, are vital to sustaining and expanding CTE. As in any system, effective leadership is needed to articulate and spotlight the need for CTE, galvanize support and resources, ensure sound management and coordination, and facilitate continuous improvement.

##### Rationale and Significance

Leadership structures for CTE have changed significantly over the last 20 years, due to changing educational policies and enrollment levels. In addition, the K–12, adult school, and California community college systems have differing leadership structures, reflecting each system’s unique mission, requirements, and cultures. As stakeholders seek to build a more unified workforce development system, including seamless pathways that prepare all students for further education and careers, better alignment and coordination are paramount. This suggests that leadership structures in both systems may also need further support and alignment.

##### Current Key Activities and Initiatives

Leadership for CTE resides at all levels — state, regional, and local — in the K–12, adult school, and California Community College systems. Aligning efforts across systems to create seamless pathways requires a chain of leadership from the State to the classroom.

###### State Level Leadership

Currently, as described in Chapter One, CTE is overseen at the State level by the CWPJAC consisting of three representatives each from the SBE, representing the K–12 system and adult schools, and from the BOG, representing the California community colleges. In recent years, the Governor, the State Superintendent of Public Instruction, and the Chancellor of the California Community Colleges have shown renewed interest in CTE, in recognition of the importance of career preparation and workforce development and of the role that CTE can play in student engagement and academic achievement.

Within the CDE, the major responsibility for CTE resides in the CCTD. The Director of CCTD also serves as the State Director for CTE. The CCTD provides support and direction to LEAs regarding CTE, high school initiatives, educational options, and adult school education.

Leadership and support from the CDE has enabled CTE faculty to develop standards-based integrated curricula, including “A-G” approved courses, and to implement model practices. The foundations laid with technical assistance have also facilitated the creation of related career academies and other integrated career pathway programs in many high schools. The CDE leadership in the career areas has also supported development of career technical student organizations (CTSOs). Leadership and technical assistance to the field are considered particularly important in CTE because CTE curricula must be updated frequently to respond to the changing needs of industry, limiting CTE instructors’ ability to rely on textbooks or standardized materials in their classrooms.

In the California community colleges, leadership for CTE resides with the Vice Chancellor for Workforce and Economic Development. The Vice Chancellor oversees the WEDD and the CTE unit, led by a Dean.

The WEDD of the CCCCO provides leadership and technical assistance to enhance the capacity of the community colleges in the areas of career education and workforce and economic development, including implementation of the State Plan.

The role of the WEDD unit is to coordinate efforts in the community colleges to fulfill the needs of business and industry for a skilled workforce. The unit facilitates the community colleges’ work with employers, advisory committees, and agency partners to identify — on a region-by-region basis — workforce education and training needs, including the needs of small businesses, and then to meet those needs in the most cost-effective and timely manner.

The CTE unit of the WEDD focuses on program coordination, advocacy, and policy development with the Kindergarten through Grade Eighteen (K–18) workforce preparation and CTE systems. The CTE Unit is responsible for the California community colleges’ implementation of Perkins V, as well as for the development, dissemination, and implementation, with the CDE, of the California State Plan, and the preparation of annual performance reports.

The California community colleges’ Academic Senate, within which CTE is fully represented, also plays a vital role in all statewide and local academic and professional matters. It develops, promotes, and acts upon policies responding to statewide concerns and serves as the official voice of the faculty of California community colleges in academic and professional matters. The Academic Senate strengthens and supports the local senates of all California community colleges.

###### Regional Level Leadership

A variety of K–12 programs and initiatives as well as PD offerings are delivered statewide using the 11 regional divisions of the California County Superintendents Educational Services Association (CCSESA). In recent years, the CDE has worked with the CCSESA’s Curriculum and Instruction Steering Committee and the High School Subcommittee to implement regional projects, including high school reform efforts incorporating CTE, campaigns promoting the integration of CTE and academic instruction, and support for the creation of networks of schools engaged in improving instruction. Regional approaches are also used in the delivery of CTE technical assistance and services to LEAs. NOTE: Need something here on TAPs. Agriculture Education and Family and Consumer Sciences Careers and Technology are both organized in six regions. ROCP services are divided into five regions. Adult schools are organized around 71 regional consortia with both secondary adult, and community college partners. Each of these regional structures has evolved to serve LEAs based on the numbers of programs and students, the needs and dimensions of the programs, and the number of the CDE staff available to support the regions. The CTSOs are likewise divided into regions, with each having regional officers and competitions at the local, regional, and state levels. In addition, the CDE works with other state agencies in delivering regional services, including the EDD, the Department of Health, the Department of Developmental Services, and the CCCCO. These various regional structures have proven to be effective in supporting the large numbers of CTE programs and constituencies throughout California.

The California Community College system has a strong regional structure as well. Given the diversity of California’s economy, the regionalization of industries such as agriculture, media, computer technology, and natural resources, and the State’s geographic scope, the community colleges have been divided into 10 regions and organized into 7 regional consortia. The consortia members “lead from the middle” by providing leadership to the colleges as well as contributing to statewide policymaking.

Each regional consortium serves as a network of education, training programs, and services that bring CTE and economic development staff together for information sharing and problem solving. Supported with Perkins V state leadership funds, the regional consortia facilitate coordination and improvement of CTE programs and are a particularly effective and efficient structure for bringing statewide initiatives to the regional and local level through informational meetings, communication, training, and field-based feedback on an ongoing basis. Additionally, consortia services include, but are not limited to, ongoing assessment and regional/sub-regional planning, marketing, dissemination of information, collaborative exchanges, and coordination. The regional consortium is in a key position to promote collaborative partnerships and joint ventures among a wide range of business and industry partners.

###### Local Level Leadership

K–12 leadership in CTE at the local level generally resides with district directors of CTE, ROCP directors and administrators, and/or adult school directors and administrators. In earlier years, the size and scope of the CTE programs in the larger districts were sufficient to justify the appointment of CTE-qualified staff members to CTE director and program specialist positions at the district level and program department chair positions at the school level. In recent years, shifting priorities have impacted funding for these positions or resulted in realignment of resources. In addition, retirement of CTE instructors and the absence of new recruits to CTE faculty or administrator positions is creating “leadership vacuums” in some programs.

At the community college level, individual California Community College Districts, colleges, and their respective Academic Senates exercise leadership in their local communities. Occupational Deans manage CTE in each college, and many Deans participate in regional consortia, statewide advisory, and discipline-industry collaborative meetings along with faculty leaders from individual program areas. The Deans lead by working collaboratively with college and individual program advisory committees that include local business and community leaders, occupational faculty, and college staff. Together they develop strategies and work plans to address the local priorities for CTE program and/or staff development and improvement.

Partners, including industry representatives, members of the business community, and colleagues in other sectors, also provide leadership in CTE — in both segments and at all levels — through advisory functions, advocacy activities, and their own strategic initiatives.

Looking at the K–12 and California community college segments side-by-side, the K–12 system has tended to exercise leadership primarily through a localized structure. The community colleges, by contrast, rely more heavily on a regional approach and local control, resulting in a form of shared governance, supported by a state level advisory structure.

###### Professional Leadership

Retiring CTE administrators in the K−12 and California community college systems along with new program standards and expectations have created a *“leadership gap”* in CTE. New CTE leaders need to be prepared to meet the multiple challenges of providing industry standard career technical preparation programs while utilizing CTE/academic integrated instructional methodology and connecting Science, Technology, Engineering, Art, and Mathematic (STEAM) concepts to real world applications. It is well known that focused training that prepares individuals to be effective team leaders accessing the most current information provides the foundation for successful program management. Challenges of ever changing budgets and funding sources, partnership building, infusing technology, demands of accountability and the pressure to compete academically across the globe can all be address through effective and continuing leadership development activities.

The California CTE Leadership Development Institute (LDI) assists both secondary and postsecondary practitioners in developing competencies to become strong leaders and managers. The overarching theme of LDI is quality leadership utilizing proven individual and team performance strategies. Individuals selected to participate in this PD series actively prepare for and practice various management roles, apply learned concepts to present day challenges and develop specific knowledge and skills related to management of CTE and integrated instructional programs.

Upon completion of the multi day LDI training, participants are prepared to provide positive leadership for an array of educational organizations.

###### Student Leadership

A very important part of the CTE is leadership development. Leadership is fostered and built though CTSOs. CTSOs work as an integral component of the classroom curriculum and instruction, building upon employability, career skills and concepts through the application and engagement of students in hands-on demonstrations, and real life and/or work experiences through a CTE program. CTSO’s guide students in developing a career pathway and provide opportunities to gain the skills and aptitudes needed to be successful in those careers through activities, programs and competitive events. In addition, CTSOs extend teaching and learning through innovative programs, business and community partnerships and leadership experiences at the school, state, and national levels. Students participating in CTSOs have opportunities to hold leadership positions at the local, state, and national level and attend leadership development conferences to network with other students as well as business and industry partners.

Leadership skills empower each student to assume responsible roles in the family, community, business and industry environments. Understanding and demonstrating these skills are key to success in postsecondary education, future employment opportunities, and becoming a contributing citizen in our community.

Students are encouraged to participate in the following CTSO’s offered at the middle and high schools.

* Distributive Education Clubs of America (DECA)
* Family, Career and Community Leaders of America (FCCLA)
* Future Business Leaders of America (FBLA)
* Future Farmers of America (FFA)
* Health Occupations Students of America (HOSA)
* Skills USA

With increased emphasis on CTE and program improvement, investment in all levels of leadership is paramount. Further, given the importance of aligning the K–12, adult school, and California Community College systems, useful leadership structures from each segment can inform development in the other. The challenge has been, and continues to be, the establishment of shared leadership to develop strong cross-level collaboration and partnerships.

##### Needed Actions for Change

The following strategies have been identified as critical to enhancing the leadership and development of CTE:

* Create a statewide CTE advisory committee for the K–12 system that meets and confers annually with the State Superintendent of Public Instruction to keep the Superintendent apprised of developments in CTE.
* Invest in statewide leadership development strategies that employ optimal combinations of staffing, advisory committees, and peer-to-peer learning opportunities to maximize each segment’s capacity to provide high-quality leadership as well as support and technical assistance to the field.
* Allocate resources specifically to qualified “subject-matter” (career area) specialists at both the CDE and the CCCCO to provide leadership, facilitate communication, and coordinate peer-to-peer learning, PD, advocacy, and industry engagement efforts within their career area; to conduct and coordinate review processes for accountability purposes; and to provide subject-matter technical assistance directly to the field when necessary to strengthen program area instruction.
* Establish agreements with higher education entities to ensure that leadership in CTE is included within the courses of study required for administrative credentials.
* Strengthen regional structures for the K–12 system, aligned with the existing community college regional consortia.
* Invest in the PD of administrators at all levels regarding the benefits of CTE and the management of CTE programs within the larger context of educational improvement to serve all students.
* Invest in support for CTE leadership at the local level to ensure that CTE administrators, coordinators, counseling, and instructional leaders have sufficient time and resources to implement system improvements and work with their counterparts in other programs.
* Develop and engage leadership at all levels of partner organizations to encourage bottom-up, as well as top-down participation.

#### High-Quality Integrated Curriculum and Instruction

High-Quality, integrated curriculum and instruction informed by labor market information, student interest, technology, industry standards, and real-world engagement through relevant work-based learning opportunities is essential to prepare students. Rigorous and aligned programs should be supported to guide students through relevant course sequences (i.e., both in-person and online) and work-based learning opportunities leading to a mastery of standards, high school graduation, and transition to postsecondary education, training, apprenticeship, and/or employment, as appropriate. Courses and programs may be designed to use cross-system strategies like dual enrollment and/or dual credit with California community colleges, CSUs, and UCs or other articulations to create a seamless student experience, and avoid unnecessary repeating of courses or other inefficient practices to facilitate “on-time” postsecondary graduation, where appropriate. Stackable badging and credentials can ensure frequency of assessment and a value-added outcome.

CTE is a unique curricular area in education. It offers rigorous integrated technical and academic content, focused on careers that are intrinsically interesting to students, and is delivered through applied, performance- and project-based teaching strategies that facilitate understanding and mastery. It also instills essential transferable workplace and career management skills that students can draw upon over a lifetime of learning and career development. In addition, CTE is, by necessity, often taught in personalized learning environments — small classes, learning communities, student organizations, and worksites — that further augment the benefits of these programs. Finally, CTE programs are dynamic; curricula need to stay current with rapid changes in the workplace, requiring ongoing updates, and learning on the part of CTE faculty.

High-quality, integrated curriculum and instruction in CTE includes the intentional reinforcement of the cognitive, academic, and technical rigor inherent in CTE and the alignment of CTE with academic, and industry standards. It also includes the integration of CTE and academic content through a variety of strategies, including IET, that foster complementary approaches to teaching and learning — strategies that draw on the best of what both CTE and non-CTE disciplines have to offer.

##### Rationale and Significance

The importance of explicitly linking academic and CTE teaching and learning in ways that “increase student academic and career and technical achievement” is incontrovertible in high-quality CTE. Explicit reinforcement of the academics embedded in CTE, and alignment of CTE with industry aligned standards, can occur within a single CTE course. Integration of content across disciplines, by contrast, can take many forms and occurs most effectively through cross-disciplinary collaboration. It includes both the infusion of academic content and standards-based instruction into CTE courses and the incorporation of career themes, essential workplace skills, or work-based learning into academic courses. Given the complexity of the task, integration is facilitated by collaboration between CTE and non-CTE faculty, and among teachers, faculty, and practitioners in the K–12, adult school, postsecondary, and business and industry sectors.

Integrated curriculum organizes the content of education in ways that cut across subject-matter boundaries and standards. The integration of CTE and non-CTE content is a strategy for increasing the rigor of CTE coursework and relevance of non-CTE coursework. In other words, integrated curriculum is both academically and technically rigorous, providing students with opportunities to apply academic competencies in occupational tasks or career-related projects, and vice versa, leading to higher levels of both cognitive and technical skills. At the same time, it fosters student engagement and learning by helping students make the link between abstract theory and career-related interests.

The instructional strategies that support integrated curricula differ from conventional subject-matter instruction or the traditional CTE focus on technical skill development. They draw more broadly upon the essential transferable skills and attitudes that are the foundation of success in the workplace — problem identification, problem solving, self-regulation, teamwork, effective communication, follow-through, creativity, and confidence to make decisions, among others.

Linking the classroom to real-world work settings through work-based learning is another form of integration. Work-based experiences facilitate learning by promoting engagement, motivation, and relationships with adult professionals who model what is required to succeed in the workplace. Work-based learning, as well as other forms of integrated curriculum and high-quality CTE, accommodates various learning styles by teaching and assessing mastery in multiple ways, including the use of performance tasks. Finally, because standards of performance and behavior in the workplace are sometimes more rigorous than in classrooms, work-based learning can challenge students to achieve at higher levels.

Given the increased complexity of technical content in many career areas and the high rates of remediation for students entering the California community colleges, integrated curriculum and instruction are increasingly applicable not only in secondary CTE and adult schools, but also community colleges and at the university level, as a means to facilitate learning. Indeed, the importance of lifelong learning in a rapidly changing and often unpredictable world suggests that strong foundational skills, including academics as well as workplace competencies, are vital to both postsecondary and career success. High-quality CTE can provide this foundation.

High-quality CTE both incorporates academics and essential skills in its own curriculum which complements and enhances academic instruction delivered by other instructors or faculty. It highlights, reinforces, and strengthens academic content through learning activities that authentically represent the knowledge, skills, and attitudes needed to succeed in the workplace. Reinforcing academic skills through CTE allows students to assimilate knowledge in ways that are useful, interesting, and potentially remunerative, while building the technical skills that can lead to immediate or future employment.

##### Current Key Activities and Initiatives

California is committed to strengthening its CTE system through better alignment and integration of CTE and non-CTE curriculum and instruction at the K–12, adult school, and community college levels. The State is also committed to alignment across instructional levels. In addition to the activities discussed below, “learning communities” that can facilitate CTE/academic integration have also been expanded; these efforts are further described under “Effective Organizational Design,” later in this chapter.

###### K–12 Activities

The CDE policy, as codified in the California *EC*, stresses the importance of preparing all students for both postsecondary education and future careers. The California *EC* Section 51220 specifically requires that districts serving students in grades seven through twelve provide courses in “Applied arts, including instruction in the areas of consumer and homemaking education, industrial arts, general business education, or general agriculture”; and “Career technical education designed and conducted for the purpose of preparing youth for gainful employment in the occupations and in the numbers that are appropriate to the personnel needs of the State and the community served and relevant to the career desires and needs of the pupils.” These are in addition to providing courses in English, social science, foreign language, physical education, science, mathematics, and visual and performing arts.

The *EC* also specifically addresses and emphasizes the importance of curriculum integration. It directs school districts to provide courses that prepare students both for admission to postsecondary education and for entry to employment, and encourages integration of the two, as follows:

Section 51228 (a):

*Each school district maintaining any of grades seven to twelve, inclusive, shall offer to all otherwise qualified pupils in those grades a course of study fulfilling the requirements and prerequisites for admission to the California public institutions of postsecondary education and shall provide a timely opportunity to each of those pupils to enroll within a four-year period in each course necessary to fulfill those requirements and prerequisites prior to graduation from high school.*

In Section 51228 (b):

*Each school district maintaining any of grades seven to twelve, inclusive, shall offer to all otherwise qualified pupils in those grades a course of study that provides an opportunity for those pupils to attain entry-level employment skills in business or industry upon graduation from high school.*

Section 51228 (b) then stresses the importance of curriculum integration:

*Districts are encouraged to provide all students with a rigorous academic curriculum that integrates academic and career skills, incorporates applied learning in all disciplines, and prepares all pupils for high school graduation and career entry.*

A number of policies, tools, and strategies have been developed to facilitate high-quality CTE curriculum and instruction in the K–12 system.

**CTEMCS.** In recent years, the State has made significant strides in furthering high-quality CTE, most notably with the adoption of the CTEMCS by the California SBE most recently in 2013. The nationally recognized CTEMCS incorporate standards for career-ready practice, anchor standards and standards for academic and technical skills into the middle and high school curriculum for each of 15 industry sectors.

In addition, within each of the 15 sectors are three to seven career pathways for a total of 58 pathways. Each sector includes an academic alignment matrix that displays where a natural, obvious alignment with a specific academic standard occurs. Compiled by five teams of academic content experts in collaboration with industry-sector consultants, teachers, and other advisers, the alignment was selected if it was determined that the pathway standard would enhance, reinforce, or provide an application for a specific academic subject standard.

The each of the 58 pathways are made up of coherent sequences of rigorous academic and technical courses that allow students to apply academics and develop technical skills in a given curricular area.

**CTE Online.** Based on the belief that CTE serves a vital role in reinforcing academic skills through contextualized, applied instruction, the CTE Online Web site ([http://www.cteonline.org](http://www.cteonline.org/)) was established to help practitioners articulate a clear and deliberate relationship between academic achievement and CTE. The site connects CTE educators and leaders to PD tools that help establish the role rigorous academic skills play in industry and career-related coursework. It provides all of the tools necessary to help faculty identify and align CTE curricula with the academic skills commonly measured on state assessments: curriculum development materials, guidance, model curriculum examples developed by a cross-section of CTE teachers from across the State, and standards databases cross-referenced and aligned across subject areas and industry standards.

**Alignment of CTE Curricula with Eligibility Requirements for CSU/UC Admission.** Another approach to integration is aligning CTE courses with the rigorous standards required of college preparatory courses. Through a partnership between the CDE and the UC Curriculum Institute (UCCI), California teachers designed innovative courses, which integrate “A-G” academic work with CTE, to help students prepare for college while they explore potential career paths. All UCCI courses meet “A-G” course requirements for freshman admission to CSU and UC campuses, making them valuable components of schools' CTE career pathways.

Currently, more than 10,000 CTE courses have been approved to satisfy the eligibility requirements for admittance to the CSU and UC system, commonly referred to as the “A-G” requirements. More classes are added each year, with the university systems and the CDE offering guidance to CTE faculty about how to amend courses to meet the requirements.

**Work-Based Learning.** Work-based learning is a key strategy for integrating academic and CTE ensuring that programs provide students the opportunity to meet high industry standards. Work-based learning, as described in Chapter One, is offered at the secondary level through WEE, ROCPs, California Partnership Academies, Linked Learning Alliance programs, and an integral part of other CTE pathways in secondary and adult schools. Adult schools, ROCPs, and the California Partnership Academies require connection of work-based learning to technical or academic classroom curricula, as do several CTE grant programs, while WEE programs generally focus on career exploration and work readiness. Secondary students may also access work-based learning through local California community college co-op programs.

Work-based learning is a key element of California Partnership Academies, NAF academies, Linked Learning, and other pathways that also integrate academic and career-technical courses and content. work-based learning can enable students to develop and exercise certain capabilities that they will likely use throughout their working lifetimes (Bailey, Hughes, & Moore, 2004; Zimmer-Gembeck & Mortimer, 2006). Such capabilities may include working with people of different ages and different degrees of authority; communicating with clients, customers, co-workers, and supervisors; and learning to solve problems involving work-related equipment, software, or systems for which co-workers and supervisors may or may not have solutions.

**PD.** High-quality, integrated curriculum often requires intensive PD and “real-time” support for teachers who are typically not trained to combine content across disciplines. The CDE staff with subject-area assignments, and county offices of education at the regional level, provide this support to teachers. In addition, the CDE and third-party providers have conducted trainings in the implementation of integrated curriculum.

###### Integration Efforts in the California Community Colleges

The California community colleges’ mission in *EC* includes both academic and CTE, as follows:

*To offer academic and career technical education at the lower division level for both recent high school graduates and those returning to school and to advance California’s economic growth and global competitiveness through education, training, and services that contribute to continuous workforce improvement.*

The CCCCO’s Vision for Success may be more to the point:

*Making sure students from all backgrounds succeed in reaching their goals and improving their families and communities. We have bold and straightforward goals to significantly increase the numbers of student transferring to a UC or CSU campus; increasing the numbers of students earning degrees and certificates and completing career education programs leading to good jobs; reducing the number of unnecessary units many students are taking to get their degree and eliminating achievement gaps once and for all.*

While CTE at the community college level is currently most often designed to lead to immediate employment, there is increasing recognition that basic academic skills are required for all occupations, and that integrating CTE with “developmental education” courses holds promise for advancing the academic skills of many students, while providing the technical skills needed for entry to employment. In the area of English language acquisition, curriculum integration has been occurring for many years through “vocational English as a second language”, a strategy that has been demonstrated to be among the most effective for fostering learning of both language and technical skills.

The increased interest in the growing number of transfer students exiting the California community colleges suggest that closer integration of CTE and non-CTE (“general education”) academic programs requires increased attention, to ensure that students have the foundation skills to progress to four-year universities if they so choose.

Currently, all Associate’s Degrees — including those awarded to students in both CTE programs and non-CTE programs — require general education as well as a major or area of emphasis. Most courses that are Associate’s Degree applicable are also transferable to a CSU or UC. In addition, certificate programs of two years or less often include either CSU or UC transferable general education courses or applied academic courses that provide necessary foundational, academic, and general education skills for the occupational area. Short-term CTE programs often include contextual, foundational, and academic skills within CTE courses.

**PD.** In the California Community College system, the CCCCO, various advisory committees and the 7 regional consortia support the development of effective practices in both discipline-specific and cross-disciplinary issues.

**Work-Based Learning.** Work-based learning is offered at the California community college level through Cooperative WEE, which links classroom curricula with experiences in the workplace. Occupational WEE is more closely tied to CTE coursework than General WEE, which is available to all students as a means to explore career options and develop general workplace skills.

Despite these efforts, work remains to ensure the highest quality programs, educators have encountered a number of challenges to integration. The lack of time is a clear impediment; designated time is needed to plan, to meet with colleagues across disciplines, and to teach and assess using project-based approaches and performance tasks. A large inventory of easily accessible model curricula is also lacking. In addition, there is a need for more PD, for both CTE and non-CTE instructors. CTE instructors need PD to identify and reinforce the academics inherent in their technical areas and align their instruction with academic requirements of their institutions and industries; and non-CTE instructors need PD to learn effective practices for teaching academic content in contextual and more meaningful ways.

The implementation of work-based learning is particularly challenging, especially at the secondary level. Challenges include: lack of time for faculty to develop and coordinate placements; lack of designated staff to develop and coordinate placements; lack of coordination between programs to ensure that work-based learning is linked to the classroom; lack of time in a conventional school schedule for students to participate; lack of paid workplace opportunities; liability and insurance issues; and the scheduling and logistics of transportation for students. In addition, most existing WEE programs operate independently of subject-specific CTE programs and currently offer general work experience, rather than work experience linked to a specific career pathway and connected to CTE curricula. While general WEE is important for providing basic workplace skills, more readily available vocational WEE would provide meaningful expansion of learning for students in career pathway programs.

##### Needed Actions for Change

The following strategies have been identified as critical to high-quality CTE programs — to increasing academic rigor of CTE coursework, the rigor and relevance of non-CTE coursework, and the benefits of both in preparing all students for careers:

* Eliminate divisions between CTE and academic curricula, and between college bound and non-college-bound students at the secondary level, so that all students receive preparation for *both* ongoing education and work, including access to career exploration opportunities, development of essential workplace skills, and direct experience in a career area of choice.
* Consider the inclusion of CTE as a graduation requirement and engage stakeholders, including both CTE and non-CTE educators, industry, community members, parents, and students, in determining what aspects of CTE should be required for all students, for what purposes — career exploration, effective teaching and learning of academics, attainment of essential, transferable workplace skills, and/or technical skill development — and how this should occur.
* Systematically review policies and practices to identify barriers to integration.
* Provide designated time for collaboration between CTE and non-CTE faculty on the development of integrated curricula, lesson plans, and materials.
* Provide designated time or compensation for collaboration between secondary, adult, and community college faculty to align, validate, and coordinate CTE curriculum.
* Identify and disseminate model integrated curricula that have been reviewed for adherence to both academic and current industry standards, and are useful to both CTE and non-CTE instructors for increasing the rigor of CTE and the relevance of non-CTE courses.
* Expand PD for CTE instructors, administrators, and other staff at both the district and campus levels, on the broad topic of reinforcing the academic rigor inherent in CTE courses and otherwise increasing the rigor of CTE.
* Expand PD for non-CTE instructors, administrators, and other staff at both the district and campus levels, on the broad topic and benefits of integrating career themes and activities into their courses.
* Provide supplementary resource materials on the integration of CTE content and applied learning strategies into academic curricula and instruction to augment the core academic K–12 California Curriculum Frameworks.
* Expand classroom-linked work-based learning and WEE opportunities through strengthened industry partnerships, effective coordination with ROCP, adult schools, California community colleges, WEE, and Cooperative WEE programs, and a systematic review of policies and practices that create barriers to access, including insurance, liability, and other issues.
* Make externships or job shadowing opportunities in industry more readily available to both CTE and non-CTE faculty, counselors, and staff, enabling them to observe and experience the application of knowledge and skills in the workplace.
* Embed workplace and technical skills in ABE, ASE, and development education curricula to enhance relevance and facilitate learning for students in these programs.
* Ensure full implementation of the CTEMCS through PD, technical assistance, and monitoring.
* Work with industry to expand industry-based certifications and licensure opportunities to promote programmatic rigor, students’ technical and academic achievement, and student transitions to employment and further education.
* Make dual credit, dual enrollment, and concurrent enrollment opportunities more readily available to both CTE and non-CTE students enabling them to move through the system faster.
* Support research and evaluation as needed to determine how CTE and integrated curricula impact student learning, graduation rates, preparation for careers, and other outcomes.

#### Skilled Instruction and Educational Leadership, Informed by Professional Learning

Skilled instruction and educational leadership, informed by professional learningis the cornerstone of the public education system in California. The educational experience is only as strong as the capacity and investment made in instructors, educational leaders, and the other key field talent to provide in-class, online, or work-based learning opportunities as well as developing an awareness of student support services. California encourages the culture of innovation and entrepreneurialism in program instruction and design that leads to student success.

Key elements of high-quality CTE are the skill of its instructors, and the existence of a sufficient pool of skilled instructors to adequately staff programs.

##### Rationale and Significance

California’s CTE instructors are required to be experts in many areas: the technical skills required in their fields, transferable essential workplace skills, and academic skills required of practitioners in their specific career areas. In addition, they must be exceptional teachers — able to use a multiplicity of strategies, including didactic instruction, projects, simulations, applied performance, and supervision in the workplace — to facilitate learning. Further, they must know how to assess student performance in correspondingly varied ways. They must also be career guides, mentors, business liaisons, participants on advisory committees, coordinators of field placements, and employment coaches, as well as champions for both students and their own programs. Finally, they are held accountable for meeting the needs of students, schools, and industry. The task is daunting — and it changes constantly.

CTE instructors in California have proven that they are up to the task. However, many of them are close to retirement. Many also need additional support as they juggle the multiple new roles required of them. New instructors are needed to address the growing demands of industries and occupations that have recently come into existence, as well as to respond to the needs of a new generation of students — learners who are more comfortable with technology tool than they are with pens and paper. Finally, instructors are needed who can take on the new challenges of working with an increasingly diverse population of lifelong adult learners.

These demands require a concerted innovative strategy of faculty recruitment, preparation, support, and ongoing PD, with emphasis placed on both creating opportunities for mutual learning among faculty across disciplines, and providing real experience in the workplace.

This section of the State Plan addresses:

* Recruitment, qualifications, and retention of faculty
* Preservice preparation of faculty, counselors, and administrators, coupled with new teacher support
* Ongoing PD of faculty, counselors, administrators, and other staff
* Opportunities for ongoing learning among faculty and staff, including collaboration to enable cross-disciplinary integration

##### Current Key Activities and Initiatives

California is undertaking and exploring a variety of activities to facilitate recruitment of skilled CTE faculty, and PD to build instructors skills to strengthen CTE programs.

###### Instructor Recruitment, Qualifications, and Retention

Teacher and faculty recruitment in CTE is particularly challenging because of needed industry expertise, academic knowledge, and pedagogical skills. They must possess integrated technical, workplace, and academic knowledge and skills, and convey this knowledge to facilitate skill development using multiple instructional and assessment strategies.

Currently, the major segments of CTE have varying requirements for instructor qualification. Teachers in the K–12 system generally hold single- or multiple-subject credentials, which require a Bachelor’s Degree, and may also require evidence of occupational experience in the career area authorized by the credential.

Many CTE teachers employed by ROCPs and adult schools also hold single- or multiple-subject credentials. However, because of the emphasis these agencies place on occupational preparation, a much higher percent of their teachers holding a Designated Subjects CTE credential (CTE credential). CTE credentials do not require a Bachelor’s Degree; they require a high school diploma and a combination of five years of subject-related occupational experience and college work.

California State law authorizes the Commission on Teacher Credentialing (CTC) to set standards and requirements for preparation of California teachers. The program of teacher preparation for the CTE Credential includes a purposeful, developmentally designed sequence of coursework that effectively prepares CTE teachers to successfully teach all students in public education to perform in a competitive workplace.

The preparation and credentialing of CTE teachers is a complex area governed and constrained by the prescriptive nature of California *EC* Sections 44260 and 44260.1 that require a minimum of three years of recent industry specific experience for the individual to be eligible for a preliminary CTE Credential. The preliminary credential authorizes the individual to teach any course within one of 15 industry sectors. In addition to the three years of industry experience, candidates for the preliminary CTE Credential are required to complete nine units of required coursework addressing safety in the classroom, basic teaching pedagogy, and basic information related to teaching English learners.

Each beginning CTE teacher in the professional teacher preparation program examines the protections of California laws for educational equity and diversity and their relevance in curriculum content and school practices for all students. The program prepares CTE teachers to provide all students with equitable access to the program’s curriculum. CTE teachers in the program learn about the ways in which teaching practices and student learning are impacted by diversity in California, including socioeconomic status. CTE teachers learn to identify, analyze, and minimize personal and institutional bias.

The CTC is currently in the process of revising the CTE credential system to address the teacher shortage in CTE. The Commission partnered with the CDE in 2016 to assemble a group of CTE stakeholders to identify recommendations intended to increase the number of available CTE teachers by developing bridges to and from a CTE teaching credential.

California community college CTE instructors must meet minimum qualifications that are based on a combination of degrees and industry experience. CTE instructors must have a Master’s, Bachelor’s, or Associate’s Degree. In order to teach with a Bachelor’s Degree, individuals must have two years of experience in their career area; with an Associate’s Degree, they must have six years of experience.

As noted in earlier sections, counselor training programs focus predominantly on academic counseling, rather than career counseling. Additionally, many counselors lack direct experience in occupations outside of the education sector.

Challenges to recruiting and retaining staff include low pay compared to the private sector; an inadequate supply of individuals who have the breadth of skills required; inadequate supply of credentialing programs, exacerbated by the currently cumbersome and extensive credentialing process that deters otherwise skilled professionals from becoming teachers; difficulties in retaining faculty for part-time positions; challenges in recruiting staff for positions in rural areas; and pressures on staff due to a continual need to re-train to keep pace with trends in industry.

###### Preservice Preparation, PD, and Collaboration

In California, preservice preparation for instructors in both the CTE and academic disciplines focuses on content-related coursework and pedagogy or teaching methods particular to a given discipline. Programs vary slightly from college to college, but all programs include specific requirements established by the CTC. CTE teacher preparation programs currently offered by the CSUs and UCs are very limited for individuals seeking a single subject CTE teaching credential.

The CTE Credential authorizes the holder to teach the specific subject(s) named on the credential in departmentalized classes, such as those in most middle schools and high schools, in preschool, K–12, or in classes organized primarily for adults. A single subject credential which would allow teaching in a CTE industry sector include, Agriculture, Art, Business, Health Science, Home Economics, and Industrial and Technology Education.

At the K–12 and adult level, CDE staff have provided both PD and targeted technical assistance to CTE practitioners in the field. Generally, PD in CTE is offered through professional and industry conferences, workshops, and meetings. Teacher externships and job shadowing opportunities are highly valued by those who have experienced the benefits they provide, but there is a much higher demand for these opportunities than there are opportunities available. Many teachers particularly value time to learn from other teachers and collaborate with their colleagues in other disciplines to develop integrated curricula and strengthen their programs.

CTE-focused PD can be valuable for non-CTE instructors, counselors, administrators, and other staff as well. While K–12 non-CTE teachers may have single-subject or multiple-subject credentials, they often lack extensive experience in the workplace outside of education, and preparation programs do not emphasize knowledge of workplace needs, career development issues, or CTE-academic integration, as described above. Greater exposure to the needs of the workplace could also enhance administrators’ ability to provide vision and leadership in CTE.

The CDE partners with High Tech High to provide PD to hundreds of educations throughout California focused on using Project Based Learning (PBL) to close equity gaps in achievement in math and English Language Arts (ELA) literacy in career pathway programs and prepare students for successful transition to college and/or gainful employment. The PD provides methods to scaffold PBL strategies, and the special population differentiation techniques to further customize and modify PBL curriculum. The core focus of PBL is to address the achievement gap in math and ELA in CTE courses. The focus was on differentiation for special populations throughout the year’s PD to build on the strategies learned, and resources developed from the previous PD at High Tech High. This comprehensive PD opportunity was available to CTE educators, math educators, ELA educators, special education educators, administrators, and career guidance and academic counselors at the seven through grade twelve level.

The PBL Leadership Academy is designed to assist California educators to support improvement of literacy and math achievement among students who enroll in CTE classes and for students identified as members of special populations; California educators who are invited to join include: math and literacy educators, CTE educators, career and academic counselors, work-based learning coordinators, school and district administrators, PD coordinators, department leaders, and other relevant educational staff.

At the community college level, PD is offered through the Community College Advisory Committees and collaboratives, Academic Senate, Regional Consortia, content area conferences, and sabbaticals. Colleges also pay for “flexible PD,” called “flex,” whereby faculty participate in at least five days of PD activities each year to strengthen their programs. In addition, the CCCCO also offers PD on special topics, such as integrating curricula, effective practice in developmental education, and assessing student learning. Initiatives reflecting system priorities are usually addressed through PD offered during the year.

The CCCCO also supports faculty PD through teacher externships, a strategy demonstrated to be highly effective in informing educators about the needs of the workplace.

##### Needed Actions for Change

The following strategies are critical to ensuring that students have access to the most capable faculty and that there is sustained recruitment and preparation of CTE faculty to meet growing needs:

* Develop strategies to recruit and prepare industry representatives who may want to enter the teaching profession.
* Expand and promote effective and innovative models of CTE teacher preparation to meet the CTE teacher shortage, including the expansion of teacher preparation programs in the California community colleges, articulated with the CSU system.
* Identify and encourage students in CTSOs who may be interested in teaching CTE within their area of career interest.
* Include integrated teaching and learning strategies and career development issues in the content of both CTE and non-CTE teacher preparation programs and ensure systematic implementation and monitoring of CTE preservice preparation programs.
* Provide mentoring and support programs for all new CTE instructors, ensuring that instructors have both the content and the pedagogical skills required.
* Provide PD focusing on equity, access, and diversity and their significance in curriculum development, content, and classroom practices so CTE teachers can identify, analyze, and help eliminate personal and institutional bias.
* Expand PD to incorporate high-priority topics and strategies, including curricular integration, collaborative strategies, career development, work-based learning, specialized strategies to effectively serve special populations, diverse learners, and adult students, and the collection and use of data for program improvement.
* Include counselors, non-CTE faculty, both CTE and non-CTE administrators, and other staff in CTE PD whenever possible to foster mutual understanding and alignment of efforts toward the common goal of preparing all students for success.
* Promote and fund job shadowing and externships for both CTE and non-CTE faculty, counselors, and administrators to provide direct exposure to the needs of the workplace and the skills required for student success.
* Promote and fund support for CTE and non-CTE faculty to learn from one another and to collaborate in the development of curricula, in team teaching, and in forming and strengthening learning communities.
* Promote and fund support for CTE faculty to collaborate with industry representatives in the development and delivery of curricula.
* Incorporate CTE teacher preparation programs into the CSU/UC programs and promote the building of contextual teaching skills in Master’s Degree-level programs.
* Promote the sharing of models integrating curricula and teaching strategies, as well as ongoing learning among educators, through conferences and electronic tools.

#### Career Exploration and Student Supports

The strong presence of career exploration and student supports is an essential component for establishing a learning plan for all K–14+ students. This includes identifying appropriate foundational courses (i.e., using competency-based learning) and information about jobs, determining student progression in a single pathway or along multiple pathways or sequences of learning, or making available in-class and online course offerings and work-based learning opportunities. To complement their learning plan, students should also have access to comprehensive counseling, individualized supports along their journey (including, but not limited to, for students who are part-time, face barriers to learning, need academic or cultural supports, transportation, child care, or financial aid), or opportunities through student leadership development organizations to achieve their individual goals and aspirations, through a variety of transitions, in an ever-changing workforce.

Career exploration and student supports provide students with access to information and experiences that allow them to envision a wide range of possibilities for their lives and to make informed decisions, both while in their educational programs and throughout their careers — decisions based both on their own interests, needs, and goals, and on a thoughtful assessment of opportunities.

##### Rationale and Significance

In the 21st century economy, it is expected that workers will likely change jobs, and possibly careers, multiple times during their lifetimes. In addition, new health care, employment policies, and tax laws add complexity to employment transitions. In order to make these transitions successfully, individuals must be able to set goals, navigate the possibilities, identify appropriate opportunities, evaluate options, and make wise decisions. Above all, they must understand their own interests, skills, talents, and areas needing development, and know how to research their areas of interest to manage their own careers, accessing opportunities and support as needed, in order to continuously learn and upgrade their skills.

The process of career development is, in other words, the process of discovering one’s interests and aptitudes — or one’s passion — and then generating and seizing opportunities to bring that passion to life. This process evolves throughout childhood, youth, and adulthood in distinct ways and stages, beginning with open-ended exploration in the earliest years and progressing to goal setting and reevaluation in adulthood.

Career development and guidance within CTE encompasses both the services offered by counselors or career guidance staff and the career exploration that may occur through classroom-based, center-based, or work-based activities. Career exploration activities may range from simple reflection exercises, career-related research, assessments, informational interviewing, speakers to workplace tours, job shadowing, mentoring, and work-based learning, where students have the opportunity to explore all aspects of an industry.

CTE is one way to explore and narrow students’ possible career choices. “Wheel” or sampler programs in middle school may help students’ who may seem to focus on two or three industry sectors. A subsequent CTE concentration course may well offer sufficient exposure for the student to decide whether to continue in that pathway or explore another. CTE courses that provide job-shadowing experiences or opportunities through career technical student organizations (CTSOs) for mentoring and competition can sharpen the decision-making process. And students need not settle on a single CTE sector. Counselors may wish to encourage students to explore two very different areas, recognizing that one area may emerge as the career choice and the other as avocational.

In addition, beyond self-knowledge and exposure to options, students of all ages need opportunities to develop essential transferable workplace skills. Such skills have been enumerated over the last two decades, beginning with the development of the National Career Development Guidelines and the identification of the Secretary’s Commission on Achieving Necessary Skills (SCANS)[[31]](#footnote-31) skills, later with the articulation of the Partnership for 21st Century Skills, and more recently, with California’s adoption of the Standards for Career Ready Practice.[[32]](#footnote-32)

These kinds of essential workplace skills are often best learned through direct experience, including projects, simulations, school-based enterprises, internships, and jobs. Such experiences can be offered in classrooms, through CTSOs, in the community, and in the workplace. Where available, career pathways offer these opportunities through contextual learning experiences. The interplay of exploration, reflection, and direct experience with feedback and guidance offered by staff, teachers, mentors, employers, and peers offers rich opportunities for students to learn about themselves, the world, and how to make their way through it.

##### Current Key Activities and Initiatives

California offers career exploration and supports to students in a number of different ways.

###### Counseling and Career Guidance

Many high schools and community colleges have career centers that provide career-related materials and a range of services, from career assessment to job searches and preparation activities. High school career centers also issue work permits, while most California community colleges have separate job placement services. In addition, many counselors in both segments offer career-related support combined with academic counseling.

ROCPs also provide counseling and guidance in CTE, they do so in several ways. Some ROCPs hire and maintain their own counseling staff to provide services themselves. Others contract with participating districts for partial use of school-based counselors, and still others use a combination of ROCPs and outside services.

California Partnership Academies, career pathways, and career-focused small learning communities offer curriculum that integrates academic and CTE and provide student workplace experiences that allow students to explore and prepare for the career areas in which they are interested.

In addition, students and transitioning adults in California have access to a wide network of AJCC where the California EDD, the Department of Vocational Rehabilitation, ROCPs, adult school programs, community colleges, and numerous community-based agencies are co-located to provide state-of-the-art universal access to career services, with intensive services for those meeting economic thresholds and other criteria. To serve youth, local workforce investment boards contract with agencies that provide youth with career exploration and development services linked to education.

###### Career-Related Tools and Resources

California has also established the California Career Resource Network (CalCRN)[[33]](#footnote-33) which provides students throughout the State with a range of online and hard copy resources and materials. The CalCRN website[[34]](#footnote-34) offers various materials such as planning guides and assessment tools as well as links to job listing resources, job search preparation guides, and career development information specific to California, including skills and degrees required for many career areas and specific occupations, from agriculture to zoology.[[35]](#footnote-35) In addition, CalCRN developed The Real Game California, a comprehensive curriculum, which incorporates California economic and workforce information and gives students many of the essential skills to become self-sufficient, career self-managers for life. This career management curriculum is aligned with existing standards, including: the California Academic Content Standards; the CTEMCS; Equipped for the Future Content Standards for Adult Literacy and Lifelong Learning; National Career Development Guidelines; American School Counselors Association, National Standards for Student Academic, Career, and Personal/Social Development; and the SCANS skills and competencies.

In addition, a number of online resources exist that offer materials about how to implement career development programs and courses. California Gear Up Educator's Resources Clearinghouse[[36]](#footnote-36) offers a free online library where educators can search a wealth of information for promoting a college-going culture and provides, periodicals, pamphlets, worksheets, and various media pertaining to career development in the classroom or career center.

The California EDD’s Labor Market Information Division[[37]](#footnote-37) also provides in-depth information about careers, job availability and earnings, categorized specifically for educators and job seekers. Additionally, resources are available through the community college discipline-industry collaborative websites where curriculum, materials, and effective pedagogies are shared, as well as information about student participation in industry-sponsored events.

###### Identifying the Essential Skills That All Students Should Possess

California has made great progress in the last several years in highlighting the importance of essential transferable workplace skills. In 2011, the SBE adopted the revised CTEMCS, including the Standards for Career Ready Practice which describe the fundamental knowledge and skills students need to prepare for transition to postsecondary education, career training, or the workforce. These standards are not exclusive to a career pathway, a POS, a particular discipline, or level of education. Standards for Career Ready Practice are taught and reinforced in all career exploration and preparation programs or integrated into core curriculum, with increasingly higher levels of complexity and expectation as a student advances through a POS. The Standards for Career Ready Practice are a valuable resource for CTE and academic teachers in the design of curricula and lessons that teach and reinforce the career-ready aims of the CTEMCS and the Common Core State Standards.

###### Student Support Systems

Students come to schools and colleges with a range of needs that must be addressed in order for them to succeed in their studies and transition to future endeavors. Needs may range from transportation, child care, and translation services to mentoring and coaching. Stakeholders emphasized the importance of enrolling students into CTE programs as a means to engage them and facilitate learning, and the subsequent importance of providing the support services necessary to ensure their success.

Beyond implementing long-standing targeted programs such as Workability, a work experience program for students with disabilities, and CalWORKs, which provides education and training to individuals transitioning from welfare, California is carrying out numerous initiatives to support student learning, skill development, and success in the workforce. Some of these include focused attention to the needs of special populations through the work of the Joint Special Populations Statewide Advisory Committee; a particular emphasis on nontraditional occupations; an increasing emphasis on services targeted to incumbent and re-entering workers; support for CTSOs; and the personalization of learning environments.

Many other student supports including supplemental instruction in reading and mathematics, to help students master the advanced academic and career technical content necessary for success in postsecondary education and careers, counseling, and other services are offered at both the secondary and postsecondary levels. Student support services include career assessment, academics reinforcement, childcare, transportation, job development, job placement, and Department of Rehabilitation services.

High-performing schools provide a range of supports for all students. These supports are crucial in effective career pathways. Many secondary schools provide Advisories where all students are assigned a teacher or staff member who assists them in achieving their academic and personal goals. Advisories usually include an advisory class as well as individual support.

Schools are also finding ways to meet the needs of English learners. Career pathway programs provides students with a curriculum that incorporates both academic education and CTE which can be especially relevant to English learners and immigrant students. This curriculum can provide English learners opportunities to succeed through contextual learning, making the coursework more meaningful and the classroom more inviting.

Despite the systems that have been put in place, work remains to ensure that all students receive the career exploration and support services they need. To date, career exploration opportunities have not been widely available before or during the high school years. At the community college level, while career centers exist, students do not often take advantage of the services offered. In addition, exposure to off-site career exploration may be limited by coordination and logistical challenges. Finally, many students do not enroll in CTE or integrated programs at all due to competing claims on their time; for these students, access to career exploration opportunities is particularly limited. Student support services are often focused on meeting the academic needs of students and due to the academic focus are not offered through or integrated into career pathways.

In sum, California provides extensive targeted services to students with a variety of needs. Schools and colleges also offer access to CTSOs and personalized learning environments. The challenge for CTE educators is ensuring that students have access to these programs and services, as well as to CTE programs that, in themselves, provide support and personalization. Identifying student needs is complex and time consuming, and resources to conduct outreach, offer CTE materials in languages other than English, or provide needed academic support and remediation is limited. However, all of these supports are necessary if students are to succeed, especially in programs that are increasingly rigorous.

##### Needed Actions for Change

The following strategies have been identified as critical to enhancing career exploration and student support systems in CTE:

* Ensure that all CTE programs and curricula are designed to meet the needs of special population students, including special education students and English learners, and the general student population
* Offer an array of career exposure and exploration activities at every grade level. Beginning at middle school, these activities should be linked to existing programs, including academic programming and integrated career pathways, to expose students to multiple options, motivate learning, and help students understand the preparation required for a variety of career alternatives.
* Provide PD to faculty in differentiating instruction and working with special population students.
* Provide students with access to up-to-date employment-related information, including information on nontraditional careers, and facilitate transitions to employment, especially for students facing barriers.
* Expand outreach to special populations to ensure their awareness of CTE course offerings, pathways, and learning communities, as well as high skill, high wage, or high demand careers, including nontraditional careers.
* Ensure that counselor preparation programs provide counselors with knowledge and skills in the area of career guidance and student supports, and that teacher and administrator preparation programs expose future teachers and administrators to career development and workplace issues.
* Provide PD for counselors, instructors, and administrators in the theory and practice of career development, including direct exposure to the workplace through job shadowing and externships.
* Disseminate career exploration and rigorous integrated CTE/academic curricula through online tools and PD.
* Promote CTSOs as a student engagement and support strategy and embed leadership development in all CTE courses
* Promote work-based learning and WEE as a strategy for both career exploration and the development of essential workplace skills, in addition to the development of technical and academic skills.
* Link the career exploration and guidance system with regional economic development initiatives and American Job Center network.
* Weave support services into the fabric of instructional delivery through the expansion of learning communities and pathways that offer opportunities for more personalized teaching and learning.
* Improve linkages to and coordination of support services for students in CTE programs, especially transportation and child care services
* Redesign existing programs to allow for more open-entry/open-exit options for students and innovative distance learning approaches.
* Explore opportunities to serve the needs of students in continuation schools, court and community schools, and juvenile correctional facilities by linking students to open-entry/open-exit programs in local ROCPs, adult schools, and community colleges and providing career guidance and exploration opportunities, including internship opportunities and mentorships.

#### Appropriate Use of Funds Focusing on Continuous Improvement

The appropriate use of data and focusing on continuous improvement should continue to drive CTE through relevant accountability that is outcome-based, is supported both vertically and horizontally across systems, and ensures equity and access for all students. Continuous improvement ensures students can access the best pathways possible. Focusing on students’ and employers’ needs will allow for identification of capacity building, refinement of programs, and elimination of inefficiencies to meet the existing and emerging needs of regional economies. Through intentional sharing of specific data elements that are actionable across systems will help to showcase student attainment, including mastery of standards, and be informed by industry needs to achieve relevant system outcomes. Responsible data use is to inform practice and improve programs, not to track students.

Any discussion of accountability must focus on utilizing, aligning, and expanding upon existing systems, and must emphasize program improvement along with reporting of compliance-driven data. Similarly, to the extent that such a system (or collection of systems) is intended to drive improvement in CTE for the benefit of all its students, businesses, communities, and taxpayers statewide, it must report progress on measures that are meaningful to each of these groups.

##### Rationale and Significance

A strong system for the appropriate use of data leading to continuous improvement is a key driver for CTE program improvement. Establishing any program improvement system requires an ongoing cycle of:

* Coming to an agreement about goals and standards
* Identifying needed data and indicators based on the agreed upon goals and standards
* Identification and, if necessary, development of data collection tools and methods, including appropriate assessments and databases
* Collection and analysis of data
* Sharing of findings with students, parents, practitioners, and policymakers
* Implementing improvement strategies

Establishing such a system in CTE can be more complex than any other aspects of education because CTE serves both students and industry; it is intended to prepare students for further education *and* career success, while providing the economy with a skilled workforce. Any metrics established must therefore be understood by business and non-educational partners, as well as by educators. Establishing a CTE program improvement system is further complicated by the fact that CTE focuses on long-term outcomes, including long-term career fulfillment across multiple career transitions and long-term economic prosperity for the State. Finally, implementation of a useful system requires attention to both local and state progress indicators.

Despite these complexities, with sufficient clarity of purpose and the participation of both education and industry, as well as other stakeholders, measures and systems can be established to gauge progress in CTE at both the local and state level, and to identify the mechanisms required to adjust performance as needed.

However, this is only half of the problem. The collection and analysis of data can and should be used by individual instructors to drive for continuous improvement in the classroom. The key is to use measurable results as a way to implement improvement strategies.

Conducting an annual data-based review is critical to consider CTE performance in light of the school’s CTE goals, adjust planning as needed to reflect the previous year’s performance, set new goals, and create an action plan to address those goals. Thus, the data-based review, the formative assessments, and CTE planning are all part of the CTE program improvement cycle included in the school’s annual strategic planning efforts.

##### Current Key Activities and Initiatives

California implements a variety of accountability, data collection, and assessment systems. For the most part, data are currently collected and analyzed primarily for compliance with the requirements of specific, discrete funding streams. Analysis of student outcomes in CTE has been driven in large part by the requirements of the Perkins V. However, progress is being made in expanding the collection and use of data in more integrated ways — across time, across programs, and across educational segments — in order to produce a clearer picture of how California’s educational system is serving all students and meeting state goals.

###### State Accountably Systems

California's new accountability and continuous improvement system provides information about how LEAs and schools are meeting the needs of California's diverse student population based on a concise set of measures. The California School Dashboard contains reports that display the performance of LEAs, schools, and student groups on a set of state and local measures to assist in identifying strengths, challenges, and areas in need of improvement. It reports performance and progress on both **state and** local measures. The state and local measures are drawn from the ten priority areas of the LCFF:

* Basic Services and Conditions at schools
* Implementation of State Academic Standards
* Parent Engagement
* Student Achievement
* Student Engagement
* School Climate
* Access to a Broad Course of Study
* Outcomes in a Broad Course of Study (College and Career Readiness)
* Coordination of Services for Expelled Students
* Coordination of Services for Foster Youth

The college and career readiness indicator, is based on the number of students in a high school graduation cohort who are prepared for college or a career. College or career readiness means completing rigorous coursework, passing challenging exams, or receiving a state seal. The following measures are approved as indicating college or career readiness:

* CTE Pathway Completion
* Grade 11 Smarter Balanced Summative Assessments in ELA and math
* AP Exams
* IB Exams
* College Credit Course, i.e. Dual Enrollment
* “A−G” Completion
* State Seal of Biliteracy
* Military Science/Leadership

In its commitment to increase transfer and degree and certificate attainment, the BOG established the Student Success Scorecard, a performance measurement system that tracks student success at all 115 California community colleges. The data available in this scorecard tell how well colleges are doing in remedial instruction, job training programs, retention of students and graduation and completion rates. With data reported by gender, age and ethnicity, colleges, students and the public can also better determine if colleges are narrowing achievement gaps.

###### Local Improvement Efforts

The Career Technical Educators using Data-Driven Improvement (CTEDDI) system was developed by the National Research Center for Career and Technical Education is a PD model that empowers CTE administrators and educators to use student assessment data to enrich classroom practice, capture student interest, and effectively target individual and group learning needs.

Unlike a lot of one-shot PD activities, CTEDDI is focused directly on program improvement. The program is a year-long process includes ongoing mentoring, online collaborative community of practice, and the training of educators to use their own student’s data to develop improvement plans. CTEDDI programs are available in California at the secondary and postsecondary level in California through various ROCPs and County Offices of Education.

Many secondary and postsecondary agencies are currently using multiple forms of reliable and valid assessments to measure student learning and improve the delivery of instruction. Educators use both formative and summative assessments integrated throughout a career pathway to validate learning gains and determine any learning gaps.

##### Needed Actions for Change

In this era of accountability, increasing attention will be placed on CTE’s role in improving student achievement in a variety of areas. CTE can lead the way in identifying outcomes that are relevant to successful adulthood and careers, valid means to assess attainment of those outcomes, the tools and systems required to collect and analyze data, and the processes necessary to ensure continuous system improvement. It must simultaneously provide data that are relevant to workforce and economic development needs and system-wide improvements. The following strategies have been identified as critical to accomplish these aims:

* Implement a secure student identifier system that allows the CTE system as a whole to follow the progress of students across programs, segments, and education/employment sectors.
* Expand state secondary accountability measures on the school dashboard to include career measures, such as earning an industry recognized certification or credential.
* Align data collection and reporting systems across programs and segments to follow student performance over time.
* Provide evaluation and program improvement tools and guidelines to local agencies to promote comparability of data and statewide benchmarking of improvements.
* Provide resources to both the CDE and the CCCCO to facilitate data collection, data analysis, and technical assistance to local agencies.
* Provide PD to practitioners in the collection and use of data, and disseminate models of effective practices and information on effective program improvement strategies.
* Encourage local agencies to allocate sufficient funding for system development, data collection, data analysis, and PD in the use of data for program improvement.

#### Cross-System Alignment

Opportunities for strategic and intentional cross-system alignment should be informed by the ongoing analysis of student data, and alignment of data definitions across systems to provide, for example, deliberate sector-based programs, deployment of technical field assistance using a regional distribution, or evidence-based practices and processes to optimize pathway success and upward mobility opportunities for all participants.

In order to support the academic and career technical achievement of students in CTE programs, it is essential that all the components of the entire CTE system be effectively linked. Cross-system alignment incorporates several elements, including course sequencing, pathways, articulation, and coordination across sectors. High-quality CTE pathways should also include opportunities for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits while still in high school.

##### Rationale and Significance

Cross-system alignment ensures that students can make smooth transitions along seamless pathways from secondary to postsecondary education and training, and upgrade skills over a lifetime of learning. It also allows adult students to easily transition into California community college programs to advance their current skills or earn a degree.

At the program level, CTE requires sequential skill building to enable mastery and application in the workplace. CTE courses, therefore, require coherent course sequences within the K–12, adult school, and California Community College systems, across the systems as students transition from secondary to postsecondary education, and across various programs and funding streams. To the degree that learning is enhanced through integration, course sequences are best implemented though coherent pathways that align CTE and academic instruction. To build these pathways, in turn, requires coordination with industry and the workforce and economic development sectors.

System alignment and coherence encompass:

* Sequencing of courses and creation of curricular pathways with multiple entry and exit points
* Articulation of secondary, adult, and postsecondary curricula and alignment of California community college to baccalaureate level programs
* Implementation of dual or concurrent enrollment strategies
* Coordination of programs within each segment, including districts, ROCPs, and adult schools in the K–12 system and, in the California Community College system, between credit and noncredit programs
* Coordination overall among education, workforce development, and economic development initiatives

Increased interest in alignment and coherence is reflected in growing support for the development of statewide systemic pathways, based on the following trends:

* A growing research base about student learning and engagement, which emphasizes coherent integrated programs that harness student interests
* Greater recognition of the need for demand-driven and sustained partnerships between community colleges; business, workforce, and economic development efforts; and community leaders focused on meeting regional, sector-based workforce needs
* Evolving models of sustainability as state and federal policies align and encourage connections among students, careers, the labor market, and economic development, allowing multiple funding sources to be blended to cultivate continuity
* The emergent thinking about career pathways as a critical economic development tool that leverages the concept of industry sectors to develop workforce talent and skills that can meet the needs of regional and state economies

##### Current Key Activities and Initiatives

CTE course sequences are available throughout the K–12, adult school, and community college systems in California. Career pathways are increasing in number at the secondary level, offering powerful ways to engage students in learning and facilitate promotion to postsecondary education and careers. Some career pathways, such as those embedded within California Partnership Academies, ROCPs, and Linked Learning Alliance programs begin as early as Grade Nine.

Within the California Community College system, career pathways are not simply viewed as another program or “major,” but rather as a framework for transforming educational institutions to meet the ongoing learning needs of students and industries. The ultimate goal is to provide a seamless system of career awareness, exploration, preparation, and skill upgrades linked to academic credits and credentials, with multiple entry and exit points spanning from middle school through secondary and postsecondary education, and adult and workforce training.

Efforts are currently underway to organize pathways among the K–12, adult school, and California Community College systems. At the secondary level, the implementation of the CTEMCS help standardize and organize the pathways. The California community colleges are using Strong Workforce Program, informed by Economic Development initiatives, as a vehicle to promote pathways formation aligned with regional economic development priorities. They have also “cross walked” existing majors with the 15 industry sectors and pathways identified in the CTEMCS to facilitate secondary to postsecondary alignment.

Efforts such as the CCPT, CTEIG, and Strong Workforce Programs at both the postsecondary and secondary levels and the Guided Pathways program at the CCCCO are designed to build career pathways throughout the State that link secondary and postsecondary curriculum and instruction.

###### Articulation

Course articulation is a process of developing a formal, written, and published agreement that identifies courses (or sequences of courses) from a secondary agency that are comparable to, or acceptable in lieu of, specific course requirements at a postsecondary campus. Articulation ensures students and faculty that students have taken the appropriate courses, received the necessary instruction and preparation, and that outcomes for students are similar to those that would have been attained had the course been taken at the community college. The intent of these agreements is to enable a smooth progression to the next level of instruction. Successful articulation promotes student retention, persistence, and program completion, and is an efficient use of facilities and resources.

The Academic Senate for California community colleges was funded to develop Statewide Career Pathways, a project aimed at creating school to college articulation in CTE. Reinforcing the California Community College system’s commitment to the importance of effective alignment, this project specifically intends to increase the number, efficiency, and transportability of articulation agreements among high schools, ROCPs, adult schools, and California community colleges.

###### Dual or Concurrent Enrollment and Dual Credit

Dual or concurrent enrollment allows high school students to gain community college credits while still attending high school. This strategy is seen as a powerful motivator for students, particularly when students are able to take classes on community college campuses. Dual enrollment programs provide otherwise unavailable opportunities to students, keep students in school, expand course selections, and decrease time to earn degrees.

An additional innovative strategy for providing students the opportunity to earn college credits while in high school is that of providing dual enrollment community college programs on the high school campus; this strategy is sometimes called “dual credit,” to distinguish it from “dual enrollment” in general. With dual enrollment, instruction happens on the college campus and can interfere with the required hours of instruction on a high school campus, but with dual credit, instruction is provided on the high school campus by high school teachers. The curriculum is developed collaboratively with community college faculty, high school teachers, and assessments are developed by the community college faculty. The curriculum is fully aligned with, and has the same learning objectives and assessments as, the community college course. Students who complete the college application and pass the course with a grade of an A or B are provided college credits, noted as “credit by exam,” immediately upon completing the course.

###### Coordination of Service Delivery across Programs in Each Segment and with Other Workforce Development Efforts

Coordination across the various CTE levels is widespread, and conducted by a variety of programs and agencies, with ROCPs providing crucial support for career centers in many California high schools, as well as CTE curricula that are complementary to district programs. ROCPs also provide work-based learning opportunities with ROCP faculty monitoring and supervising students. However, in some counties, travel distances to ROCPs may limit student participation. Distance may also limit meaningful integration or coordination of curricula with district programs.

In addition, county offices of education play a crucial role in promoting, coordinating, and implementing CTE and other career pathway programs in their counties. Many of them oversee the administration of ROCPs. Many also played lead roles in convening and managing partnerships through CCPT and still provide crucial leadership for countywide career pathway activities through the CTEIG through participation on their local workforce investment boards, direct engagement with employers and employer organizations in their counties, and through the myriad convenings, programs, and organizational relationships that county offices are responsible for managing. In addition, as brokers and providers of PD services to their local school districts, county offices of education disseminate information to the field regarding integrated curricula and smaller learning communities, and data-driven decision making, among many other issues. Finally, as administrators of special education, “Workability” programs, court and community schools, and other alternative education programs, including programs for homeless children and those in foster care, county offices play a crucial role in reaching students who are in greatest need and who could benefit from CTE.

Adult schools also partner with secondary and postsecondary institutions to provide students with seamless transitions as they participate in the CTE system. Given their mission to provide high-quality lifelong learning opportunities and services to adults in an era of rapid change, adult schools recognize the need for interagency coordination and support to continually strengthen their services.

The California community colleges, have focused on integrating noncredit instruction with academic and career technical credit instruction. These efforts include strengthening the coherence and articulation of noncredit instruction with community colleges’ other instructional delivery systems and developing career pathways aligned with adult school programs.

##### Needed Actions for Change

To promote greater alignment across the CTE system, allowing for seamless transitions for students while meeting the crucial workforce development needs of regional economies, it is important to consider the following critical strategies:

* Align accountability systems to promote the achievement of shared goals and increase improvement efforts.
* Encourage and promote the development of coherent career pathways that foster complementary and integrated CTE and academic content, faculty collaboration, and secondary to postsecondary transitions.
* Provide sufficient time for faculty to build cross-segmental and cross-disciplinary collaborations aimed at aligning curricula and programs, as well as models, tools, and PD to facilitate pathway development.
* Define a sequence of CTE foundation courses beginning in middle school, aligned to secondary and postsecondary career pathways.
* Facilitate program-to-program articulation and use model articulation agreements to promote consistency and minimize duplication of effort.
* Encourage education and workforce development offices and organizations to collaborate in designing pathways that are aligned to economic development initiatives and include coordination with support services.
* Create career pathways that integrate the K-12 and postsecondary phases of learning and align with your state’s plan under the Every Student Succeeds Act.
* Incorporate business-driven local needs assessments and continue deepening state and local industry or sector partnerships as your efforts to develop, implement, and update CTE programs of study.
* Provide opportunities for secondary students to be awarded transcript postsecondary credit at the time the credit is earned and are supported by formal agreements between secondary and postsecondary education systems.

#### Intentional Recruitment and Marketing

Intentional Recruitment and Marketing (Promotion, Outreach, and Communication) should reflect an understanding of students’ and employers’ needs, be consistent in its messaging to stakeholders across all segments, and use tools and reports as a platform to display the added value of high-quality K–14+ college and career pathway programs.

CTE offers countless benefits to students, employers, state and regional economies, and communities. In order to ensure continued support for CTE, its benefits must be validated and made more widely known to students, parents, educators, counselors, community members, and policymakers. This State Plan makes explicit the need to clearly communicate the benefits of CTE to each of these groups based on evidence of its impacts.

##### Rationale and Significance

CTE promotion, outreach, and communication encompass:

* Demonstrating how CTE promotes student academic achievement, as well as the attainment of technical and workplace skills, and contributes to enhanced student outcomes and long-term success
* Promoting communication between CTE and non-CTE faculty
* Communicating broadly with students, parents, community members, and policymakers about the opportunities and benefits offered through CTE
* Ensuring that all administrators and counselors understand the benefits of CTE
* Ensuring that students get the information they need about CTE programs at key decision points in course selection and career development
* Ensuring that students are aware of the wide array of leadership and learning opportunities available through CTSOs
* Communicating with incumbent workers about the training opportunities available to them in CTE programs
* Generating political will for further support and resources
* Expanding and strengthening outreach efforts to encourage teaching in CTE as a profession

##### Current Key Activities and Initiatives

CTE at the K–12, adult school, and postsecondary levels implements varying promotional, communication, and outreach strategies.

In the K–12 system, individual programs promote CTE through written materials, websites, and conduct outreach or produce special events to inform students about career academies, pathways, courses or career-related events and encourage their participation. Counselors inform students about CTE, though schools and counselors sometimes prioritize other programs. ROCPs that serve high school students often promote their programs though the high school career centers, if such centers exist, but some counselors are not aware of the variety of ROCP courses available to students in their communities. Adult ROCPs and adult school programs promote their programs directly to the community. Promotion of and enrollment in CTE is facilitated by the creation of learning communities that incorporate both CTE and non-CTE courses, thus reducing the need for students to choose between CTE and non-CTE courses. Communication between CTE and non-CTE teachers and between teachers and counselors or other support staff is also facilitated by participation in learning communities, but does not occur systematically when learning communities are not in place.

In the California Community College system, the CCCCO has created a variety of public service announcements to facilitate individual colleges’ communications with the public and provides a searchable database on its website to assist the public in finding programs and courses. Promotional activities also occur through each of the 115 California community colleges. CTE programs develop their own materials at the college and regional level; every region has a web-based program to enable the public to view courses available in their region. Colleges also conduct career days, bringing high school students onto campuses, where they have the opportunity to talk with community college students.

In addition, in both secondary and postsecondary segments, while programs communicate with the public in order to recruit students to their programs, with few exceptions, the benefits of CTE programs have not been made widely known to educators at large or to the public in any systematic way across the State. Further, in the current era of accountability and increased global competitiveness, CTE needs to demonstrate and trumpet its role in engaging students in learning and promoting high academic achievement, as well as in the development of students’ technical and workplace skills.

##### Needed Actions for Change

The following strategies have been identified as necessary to improve cross-system alignment in CTE:

* Make CTE and its benefits — including its role in promoting student engagement and academic achievement — more visible to students, to parents, to other educators, including non-CTE faculty, counselors, and other staff, and to the public at large.
* Promote communication among CTE and non-CTE faculty, counselors, guidance staff, administrators, and other staff to foster understanding and the development of a shared vision for student success.
* Work with statewide stakeholders to craft a message about CTE that is clear, coherent, and can galvanize interest in and support for CTE programs.
* Ensure that counselors are fully informed of the CTE resources and support services available to students in their schools and colleges.
* Engage business organizations to communicate with educators and students about the value of CTE programs and to encourage participation.
* Review policies and practices that may pose barriers to full implementation of career pathway programs.

#### Sustained Investments and Funding Through Mutual Agreements

Sustained investments and funding through mutual agreements must be present to encourage regional alliances along with industry sector strategies,especially with a focus on current and/or emerging high-skill, high-wage, and/or high-demand occupations. This includes but is not limited to K–12 education, adult education, higher education, labor, economic development councils, chambers of commerce, CWDBs, career advisory boards, and regional industry alliances aligned by sector that lead to an industry-recognized credential or certificate, postsecondary training, apprenticeship, and/or employment.

##### Rationale and Significance

Sustainable investment in seamless pathways includes investment in permanent staffing. As pathways become an increasing priority for districts, PD supports district staff to develop new skills and incorporate new work into their roles. For those changes to be sustainable, new routines need to be folded into institutional practices. Staff and leadership turnover wreak havoc unless job descriptions are rewritten and systems are deliberately revamped. “Stability is a crucial resource because pathways are reforms that require substantial time, incremental changes in many institutional practices, and slow persuasion (“buy-in”) of individuals who are initially resistant to change” (Grubb, 2011, p. 168).

Employers should play a critical role in supporting high-quality career pathways. After investing in integrated curriculum and cross system alignment, as the first priority, number two is how do we get the business community invested in this agenda and see it as a core business imperative as opposed to a philanthropic add on. If it's the latter, it becomes nearly impossible to create effective and sustainable high-quality career pathways. The question is, what is industry’s dedication and commitment to this effort? In United States, unlike other countries around the world, education is separate from business. Efforts to make significant, meaningful connections between the two have been unproductive. One criticism is business leaders don’t want to wade through school bureaucracy.

In Switzerland and other countries, education is a core initiative for the business community. It is part of what they do and has become entrenched into their culture. In other countries, industry helps to design pathway programs, write curriculum, and invest in work-based learning opportunities for students. How we get business to really buy into this agenda should be at the top tier of importance.

Workforce funds can help support employer engagement, according to the director of the State Workforce Investment Board, Tim Rainey. He explained:

**“So, if we can use WIOA dollars in a very strategic way to bring together the industry, the demand side, with the supply side and becoming that bridge between CTE programs and the K−12, and the California community colleges to employers.** That’s the role we think that workforce boards and our dollars should play. The biggest complaint was that WIOA was trying to be all things therefore there couldn’t be enough for everybody, and no matter how you looked at it, it looked like a failure. So I think a more targeted investment of those dollars to build the demand side is where we need to be going in the future.” (Tim Rainey, Interview, June 15, 2015)

##### Current Key Activities and Initiatives

Often, collaboratives are formed in response to particular funding streams; even some ROCPs and district-funded CTE programs have operated separately, despite their common mission, student base, and potential industry partnerships. When resources wane, collaboration then also ceases unless it has been institutionalized. Long-term systemic change is difficult to measure in the short term, which creates an incentive to take on projects that have immediate appeal, rather than those that may have longer-term impacts. Collaboratives are difficult to manage effectively. The fact that a particular funding stream is limited in term, may in fact cause partners to enter collaboratives with limited commitment. The disparate organizational cultures, missions, and motivations of industry and education can hinder success unless efforts are made to promote mutual understanding in service of a common goal. In addition, employers are not always utilized in meaningful ways and are not always provided a real voice in the development of programs, which can discourage their participation.

For CTE to prepare students to meet rigorous standards and become lifelong learners with employable skills, the K–12, adult school, and community college systems need to be intentionally designed to ensure that this occurs. Minimally, this entails the development of organizational structures and processes that facilitate student access to programs, enable faculty to collaborate with one another, promote personalization, link students with business and industry for workplace learning, and encourage course and program completion. This also requires continued, sustained, funding focused on common goals and initiatives. In so doing, CTE also blurs the line between education and the workplace, in such a way that all are working toward the common goal of ensuring student success and workforce readiness.

The BOG recently adopted 25 recommendations from their Task Force on Workforce, Job Creation, and a Strong Economy, with a central focus on pathway development. These efforts support and reinforce cross-system collaboration. With the advent of local control in California’s K–12 educational funding, collaborative structures for developing cross-segmental priorities and agreements, as well as incentives for ensuring sustainability, both in staffing and in funding, become essential.

The CCCCO’s WEDD has created an organizational infrastructure to support sector strategies and regional coordination through Sector Navigators (SN) and Deputy Sector Navigators (DSN).

* **SNs** serve as **first contacts** in a sector for employers and for the community college system, fielding inquiries and determining how best to address the inquiry. They have subject matter expertise in a particular sector or occupational cluster as well as familiarity with the assets of the California’s community college system. They operate with a multi-region (or statewide) scope while coordinating work plans and communications across a network of in-region **DSN.**
* **DSNs s**erve as in-region contact for a sector, working with the region’s colleges and employers to create alignment around and deliver on workforce training and career pathways. There are 7 macro-regions subdivided into 15 economic regions. DSNs operate at the macro-region level. In certain geographies, there may be two DSNs providing coverage to the macro-region.

State funding has been allocated to provide SNs and DSNs to promote system alignment within high priority industry sectors. Regional Career Pathway Technical Assistance Providers have been funded to serve as liaisons, bridging the work between K−12, community colleges, adult education partners, CWDB and industry. While challenges abound in the effort to link these traditionally autonomous institutions, progress has been made. Across the State, high school and postsecondary leaders are connecting in communities of practice to map and align pathways, identify courses for articulation and dual enrollment, develop agreements, and build bridges to support students’ transitions, such as through data sharing, counseling, student supports and multiple placement measures.

Career pathway partners have leveraged many sources of funding to support pathway development, including Perkins V, LCFF, California Partnership Academy funding, parcel tax funding, foundation funding, employer support, and CWDB support. This holds promise for sustaining career pathway development. Districts need to build support for use of LCFF and other local funds to continue pathways development. Recognizing Progress, inclusion of career readiness measures that reflect pathway and work-based learning participation, will provide some clarity and incentive for support to pathways and work-based learning in LCAPs, but technical assistance on how to use different funding streams to support and sustain career pathways appears necessary. It is imperative to use limited funds strategically and systematically to sustain pathway development into the future. Ongoing Strong Workforce Program (SWP) funding will be particularly important to support collaboration between K−12 and community colleges and among partners in every region; to sustain collaborations, other future funding streams also need to emphasize partnerships and include metrics associated with common goals. Finally, ongoing employer commitment will be required to support pathway development, not only for work-based learning but also for curriculum integration.

Much progress has been made in building regional collaborations, through CCPT and CTEIG funding, leveraging of existing initiatives such as SWP, consortia have facilitated K−12 to community college relationships. Some have embraced the “collective impact” model and many have also engaged intermediaries to facilitate regional coordination, and utilized the services of DSNs for technical assistance and access to labor market information. Community-wide collaboratives, including mayors, public agencies, and community-based organizations, in addition to educators and workforce professionals, hold promise for engendering buy-in and sustaining programs.

Lack of time and resources specifically dedicated to collaboration remain challenging. In addition, there appear to be few incentives for California community colleges to collaborate actively with K−12 agencies and for K−12 to work collaboratively with community colleges and local CWDBs to address regional workforce and economic development issues. The broader vision of Kindergarten through Grade Sixteen (K−16) student success and community-wide economic and workforce development, with clear roles and shared accountability, has yet to be fully realized.

##### Needed Actions for Change

The following strategies have been identified as necessary to improve cross-system alignment in CTE:

* Establish or strengthen existing regional collaborative relationships and partnerships between business entities, community organizations, and educational agencies.
* Provide articulated pathways to postsecondary education aligned with regional economies.
* Leverage and build on any of the following:
  + Existing structures, requirements, and resources of the Strong Workforce Program, the CTEIG, California Partnership Academies, ROCPs, CAEP, WIOA, Perkins V, and LCFF including staff knowledge, community relationships, and course development.
  + 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 DSNs.
  + Participation in the local California community colleges skills panel.
* Incentivize LWDBs in California to play important convening roles among education, workforce development, and economic development organizations.
* Develop systems for continuous communication: Consistent and open communication is needed across the many players to build trust, assure mutual objectives, and create common motivation.
* Provide systemic incentives for participation by schools and colleges to collaborate with other institutions or organizations and for businesses to partner with educational institutions, or invest time and money into work-based learning experiences that are a critical element in high-quality career pathways.
* Require career pathway programs to work with LWDBs and business partners to develop work readiness opportunities for students.
* Provide adequate funding for collaborative planning, coordination, and evaluation of progress across the regions. Strong partnerships require sufficient funds and resources to sustain their work, whether through LCAPs, CTEIGs, SWP, or other sources.
* Strengthen partnerships with educators on the supply side with employers on the demand side through Memoranda of Understandings, Joint Powers Agreements, or other mutual agreements to tie down partner agreements and expectations for sustainable career pathways.

### Summary

California seeks to build a world-class, demand-driven CTE system to serve all students, from young people first exploring possibilities to adults seeking to update their skills or change careers. The State envisions a CTE system that is fully embedded within California’s education system, K–16 and beyond, promoting economic development and providing students with the full range of knowledge and skills necessary to become successful, contributing members of society.

In addition, it is central to emphasize the importance of addressing the needs of all students, including young children for whom CTE can open endless future possibilities, youth seeking meaning and identity, young adults forging their career paths, and re-entry and incumbent workers seeking new skills and options. Inclusion means serving all individuals seeking to fulfill their career aspirations and contribute to the well-being of society. To achieve this aim, both visionary leadership and adequate resources are necessary at all levels.

## Chapter Four: Implementing High-Quality Career Pathways

This chapter provides established State policies for the creation, sustainment, and administration of high-quality career pathways at the State and local levels. The policies have been approved by the CWPJAC and adopted by the SBE and the BOG.

These policies are integral to the 11 elements of a high-quality CTE program as developed by the CWPJAC and are essential components of sustainable, accessible, equitable, and effective pathways. These policies established the basic requirements of CTE in California with have two primary purposes: to clarify the State’s position on critical and necessary components of high-quality CTE programs and to ensure the State and local agencies are maximizing the potential benefit of limited but critical funds.

### State Policies related to CTE

#### Career Pathway

**Career pathways are an organized and integrated collection of academic courses, CTE programs and support services intended to develop students’ core academic, technical, and employability skills. Career pathways provide students with continuous education and training that prepares them for in-demand employment opportunities. A high-quality career pathway consists of a collaborative partnership among community colleges, primary, and secondary schools, workforce and economic development agencies, employers, labor groups, and social service providers.**

The term ‘‘career pathway’’ means a combination of rigorous and high-quality education, training, and other services that—

1. Aligns with the skill needs of industries in the economy of the State or regional economy involved;
2. Prepares an individual to be successful in any of a full range of secondary or postsecondary education options, including registered apprenticeships;
3. Includes counseling to support an individual in achieving the individual’s education and career goals;
4. Includes, as appropriate, education offered concurrently with and in the same context as workforce preparation activities and training for a specific occupation or occupational cluster;
5. Organizes education, training, and other services to meet the particular needs of an individual in a manner that accelerates the educational and career advancement of the individual to the extent practicable;
6. Enables an individual to attain a secondary school diploma or its recognized equivalent, cluster and at least 1 recognized postsecondary credential; and
7. Helps an individual enter or advance within a specific occupation or occupational.

This is the same definition defined in WIOA and required under Perkins V.

#### Sequence of CTE courses

The term ‘‘CTE sequence of courses” means a coordinated, nonduplicative arrangement of academic and technical content at the secondary and postsecondary level that:

1. incorporates both challenging State academic standards and State CTE standards;
2. addresses both academic and technical knowledge and skills, including employability skills;
3. is aligned with the needs of industries in the economy of the State, region, or local area;
4. progresses in specificity (beginning with all aspects of an industry and leading to more occupation-specific instruction);
5. has multiple entry and exit points that incorporate credentialing; and
6. culminates in the attainment of a recognized postsecondary credential.

#### A CTE course

CTECourses are identified using the following criteria and must:

* Be integral to an approved CTE sequence of courses.
* Be explicitly designed to prepare students with career skills that lead to employment. (Employment could be at the completion of high school, community college, apprenticeship, or 4-year college or university.)
* Have no less than 50 percent of course curriculum and content directly related to the development of career knowledge and skills. (The California CTE Model Curriculum Standards and Framework can be useful tools in ensuring and validating that there is sufficient CTE content (embedded in the curriculum.)
* Have business and industry involvement in the development and validation of the curriculum.
* Be taught by a teacher who meets the CTE teacher credential and occupational experience qualifications.

### Work-based Learning

Work-based learning means sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.

### Requirements of Local Educational Agency CTE Programs

**Policy.** Each CTE program must incorporate a sequence of courses that provides students with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills, and the following planning, organization, and instructional elements determined by the state to be critical to high-quality CTE programs:

* Be staffed by qualified CTE teachers, meaning teachers who (1) possess a standard secondary, single-subject or designated-subject credential which authorizes the teaching of the CTE course(s) to which assigned, and (2) can document employment experience, outside of education, in the career pathway addressed by the program or other evidence of equivalent proficiency. The minimum qualifications for community college CTE teachers are established in Title 5 of the CA Administrative Code.
* Focus on current or emerging high skill, high wage or high demand occupations.
* Be aligned with the State’s CTEMCS.
* Eliminate barriers for participation in pathway programs to provide equitable access.
* Provide appropriate, effective, and timely support services for all students, including special populations and those preparing for nontraditional occupations.
* Have extensive business and industry involvement, as evidenced by not less than one annual business and industry advisory committee meeting and includes planned business and industry involvement in program development.
* Provide for certification of students who achieve industry-recognized skill and knowledge requirements.
* Be aligned with applicable feeder and advanced-level instruction in the same career pathway.
* Integrate the development of CTE and academic skills in order to prepare students for immediate employment upon graduation and for further education or training.
* Provide practical applications and experiences through actual or simulated work-based learning assignments.
* Include planned career awareness and exploration experiences.
* Provide for the development of student leadership skills through an established CTSO or an alternate strategy that incorporates this instruction in all of the courses that make up the sequence.
* Use both formative and summative assessment results to determine needed program improvements, modifications, and PD activities for staff.
* Use annual evaluation results, to determine effectiveness of each career pathway program and share these results with students, parents, business and industry and the general public.
* Have a systematic plan for promoting the program to all concerned groups, including, but not limited to, students, parents, counselors, site and district administrators, and postsecondary educational agencies.

### Requirements of Sequences of Courses for CTE Programs

**Policy:** Sequences of courses making up a career pathway program must:

* Consist of not less than two full-year CTE courses with a combined duration of not less than 300 hours; or a single, multiple-hour course which provides sequential units of instruction and has a duration of not less than 300 hours.
* Be coherent, meaning that the sequence may only include those CTE courses with objectives and content that have a clear and direct relationship to the occupation(s) or career targeted by the program.
* Include sufficient introductory and concentration CTE courses to provide students with the instruction necessary to develop the skill and knowledge levels required for employment and postsecondary education or training.

### State Policies Related to Perkins V Funds

#### 1. Division of the Title I, Part C (Local Assistance) Funds Between Secondary and Postsecondary Programs

**Policy.** The formula for dividing the Title I, Part C funds between secondary (Section 131) and postsecondary (Section 132) programs will be determined annually by the CWPJAC. The distribution of funds formula approved under Perkins IV and 2019–2020 State Transition Plan was approved by the CWPJAC for the 2020–2021 program year. A representative field committee will be convened by the CDE and the CCCCO in the Spring of 2020 to identify and examine alternative options for distributing these funds in subsequent years.

Explanation. Please refer to State Distribution of the Perkins Funds in Appendix **?** for a complete description of the division of funds criteria and process.

#### 2. Alternative Formula for Distributing the Title I, Part C, Section 132 (postsecondary) Funds

**Policy.** A waiver request submitted to the USDE, if approved, will authorize the state to continue to use an alternate formula for distributing the Section 132 (postsecondary) funds. The alternate formula, which was approved for the Perkins II and III funds, is based on the number of economically disadvantaged adults enrolled in CTE programs during the last completed year, as opposed to the formula prescribed in the Act that would distribute the funds based on Pell Grant recipients and students receiving Bureau of Indian Affairs assistance.

**Explanation.** As evidenced by a comparison of the results of distributing the funds based on the formula prescribed in the Act and the alternative formula, the alternative formula provides for a more equitable distribution of the funds among economically disadvantaged adults. The alternative formula also enables the state to recognize and serve economically disadvantaged adults enrolled in CTE programs conducted by adult school agencies and regional occupational centers and programs in addition to those enrolled in programs conducted by the community colleges. A complete description of the Section 132 waiver request is provided in Appendix **?**. A comparison of the results of distributing the funds based on the prescribed and alternative formulas is provided in Appendix **?**.

### Policies Related to Local Administration and Use of Funds by All Eligible Recipients of Perkins V Funds Other Than the Community College Districts

**These requirements pertain only to CTE courses, sequences, or pathways funded with the federal Perkins V funds.**

In addition to the State policies and requirements previously listed, CTE courses funded with the federal Perkins V funds must meet the following federal and state policies related to the use of those funds

#### Required Local Educational Agency Use of Section 131 and 132 Funds

**Policy.** No less than 85 percent of the LEA’s Section 131 or 132 allocation must be expended to improve or expand CTE programs and courses approved in the local plan and annual application for funds. Appropriate expenditures of these funds include:

* Costs incurred in program-related planning, development, validation, and accountability activities
* Curriculum development activities
* Professional development activities, including industry internships for teachers
* Instructional equipment and material purchases
* Providing programs for special populations
* Providing mentoring and student support services
* Providing resources designed to strengthen and support academic and technical skill attainment
* Providing professional development activities that address the integration of academic and CTE
* Providing activities to support entrepreneurship education and training
* Providing support for the consumer and family studies program (as delineated in the California CTE Model Curriculum Standards and Framework and the Family Studies Standards Implementation Resource Guide, Grades Seven Through Twelve)
* Additional instructor costs incurred by the expansion of existing programs or addition of new programs (3-year limitation on these costs)
* Staff and other necessary operational costs incurred in providing for state and nationally recognized career technical education student organizations (CTSOs) and work-based learning experiences
* Other instructional activities and services that are directly related to the improvement and expansion of the local agency’s approved CTE programs

Up to 5 percent of the allocation may be charged to direct or indirect costs for expenditures incurred in activities required to administer the grant.

Up to 10 percent of the allocation may be expended to support other CTE activities that are consistent with the purpose of the Act. These activities include, but are not limited to the following:

* Involving parents, businesses, and labor organizations as appropriate, in the design, implementation, and evaluation of the CTE programs assisted with the funds
* Providing career guidance and academic counseling for students participating in CTE programs
* Developing and expanding program offerings for adults at times and in formats that are accessible for students, including working students
* Developing and supporting small, personalized, career-themed learning communities
* Providing CTE programs for adults and school dropouts to complete secondary education, or update the technical skills of the adults and school dropouts
* Providing CTE program completers and leavers with placement assistance in jobs and advanced education and training
* Supporting training and activities such as mentoring and outreach in nontraditional fields

**Explanation.** This local use of funds policy is consistent with the General Authority for local uses of Section 131 and 132 funds, as cited in Section 135(a) of Perkins V, which states, "Each eligible recipient that receives funds under this part shall use such funds to develop, coordinate, implement, or improve career and technical education programs to meet the needs identified in the comprehensive needs assessment described in section 134(c)”; with Section 135(b) which describes the requirements for the use of funds; with Section 135(d), which limits to 5 percent the amount of Section 131 and 132 funds local agencies may use for administrative costs; and with Section 135(c), which lists the permissive uses of the funds. The policy is also critical to the development of the high-quality programs envisioned in Chapter Three.

## Chapter Five: Continuous Quality Improvement in CTE

In previous chapters, data about a student’s engagement in, achievement of, and transition in to and out of, career and technical education (CTE) has been presented. What the data shows is that CTE secondary, community colleges, and adult education students are engaging in high quality CTE programs and pathways that result in achieving high school and community college credentials and transitioning in and out of further education and the workforce. How engagement, achievement, and transition connect up to accountability and continuous quality improvement (CQI) will be described later in the chapter. However, given the different data collection methods, measurement procedures, and reporting practices across secondary, community colleges, and adult education, accountability and each sector is described first separately below, with how CQI is set up for each.

### Secondary Continuous Quality Improvement (CQI) Framework

California’s educational system is founded on the belief that the local eligible agency (LEA) is the primary unit of change and plays the central role in supporting schools to implement and sustain improvement efforts. California’s diversity requires more than a “one size fits all solution” to help LEAs and schools successfully implement continuous improvement efforts and meet the needs of all learners, particularly those students most in need. While CQI will always be differentiated to meet local needs to the greatest extent possible, interventions for school and district CQI will be implemented within the larger context of a statewide system of support.

Long-term goals, and the ability for LEAs or schools to determine interim progress goals, are built into the California Model (for a complete description of the California Model, please see the state Every Student Succeeds Act (ESSA) Plan). The California Model is based on a five-by-five colored grid that produces 25 results. Each of these 25 results represent a combination of current performance (known as “Status”) and how current performance compares to past performance (known as “Change”). Overall performance within the California Model therefore includes whether there has been improvement, and a school and student group’s placement on the grid determines the improvement that is required to maintain the current performance level (color) on the grid or to move to the next performance level. Goals can be established relative to overall performance within the Status and/or Change components of the five-by-five colored grids.[[38]](#footnote-38)

Under California state law, every LEA must adopt and annually update a local control accountability plan (LCAP). In the LCAP, the LEA must establish goals for all students and the statutory student groups across priority areas defined in statute. The LEA must also describe actions and services, and related expenditures, to meet the goals for student performance. The template LEAs must use for LCAPs includes a summary in which LEAs must address any indicator where the performance of one or more student groups is below the performance for all students. Accordingly, through the LCAP, under the California Model, an LEA is not making progress toward closing performance gaps among student groups and therefore must describe the efforts they will undertake to make significant progress in closing performance gaps on the relevant indicator(s).

In other words, LEAs must therefore annually review and update their overarching plans for educational programming to address areas where the LEA is not making progress in addressing performance gaps among student groups.

This statewide system to assist LEAs to leverage change is an important component to helping narrow statewide proficiency gaps between student groups. Given that all student groups have the same long-term goal, student groups with lower baseline performance will need to make greater improvement over time to reach the long-term goal. The ability for LEAs or schools to determine interim progress goals, including for lower performing student groups, is built into the California Model. In addition, the CDE has produced a report that indicates where schools and student groups are on the five-by-five colored grid, allowing schools to target improvement strategies to reach the goal for each student group. These reports are available on the CDE website at <https://www6.cde.ca.gov/californiamodel/>. As will be described below, the CQI provisions for CTE and accountability provisions in general tends to follow the principles laid out above.

##### High School Transitions to College/Career

The College/Career Indicator is an additional indicator of student success for high schools. The SBE is working to adopt performance standards (i.e., five-by-five grid) for the College/Career Indicator (CCI). The CCI is designed to include multiple measures in order to value the multiple pathways that students may take to prepare for postsecondary. The CCI currently has three levels (Prepared, Approaching Prepared, and Not Prepared) and is designed to allow new measures to be added when they become available. To determine how well a school district has prepared students for a post-high school experience, the CCI evaluates all students in the four-year graduation cohort. The same calculation methodology is used for both the school level and the student group level.

In consulting with the CDE’s Technical Design Group, it was determined that the following measures were valid and reliable measures of college/career readiness. These measures are included in the Fall 2017 California School Dashboard release:

* Grade 11 CAASPP results in ELA and mathematics
* a–g Completion
* Dual Enrollment
* Advanced Placement (AP) exam
* International Baccalaureate (IB) exam
* Career Technical Education (CTE) pathway completion

California added new data elements to California’s student-level data collection, the California Longitudinal Pupil Achievement Data System (CALPADS), in the 2016–17 school year. Once these new measures are collected and determined to be valid and reliable, they will be considered for inclusion in the CCI. These measures are:

* State Seal of Biliteracy
* Golden State Seal Merit Diploma
* Articulated CTE Pathways

In general, the CCI is designed to include multiple measures in order to value the many pathways that students may take to prepare for their post-high school experience.

##### Secondary CTE Accountability

Under Perkins IV, California defines as a secondary concentrator a student within a program, pathway, or program of study completing one course and enrolling in a second. Perkins V requires the state to define a CTE concentrator in a program, pathway, or program of study as a student who has completed at least two CTE courses. Under Perkins V, besides its current definition, the state has two other options. The first would be defining a concentrator as a student who completes the 12th grade capstone in a CTE program, pathway, or program of study. The second, would be the completion of at least two CTE courses in an industry pathway. The state is currently performing a variety of analyses on these different definitions. However, to determine the required targets for each of the Perkins V secondary indicators, the state is likely to define a concentrator as a student who completes the 12th grade capstone in a program, pathway, or program of study.

The California Longitudinal Pupil Achievement Data System (CALPADS) already collects information on the achievement and transition measures, overall as well as different student populations, for both ESSA and the LCAP. Additionally, measures collected as part of the College and Career Indicator (CCI) can be seen as potential candidates for the quality indicator, and these are included, or will be, within CALPADS. In other words, once the CTE concentrator has been defined, CALPADS can be used to determine the different indicator performance levels, overall and for student groups, and compare them to corresponding target levels. Also, with regard to the choice of the secondary quality indicator, the lean for California appears to be college-credit courses since it is included within CALPADS and CCI. Nevertheless, California will explore the other quality indicator choices as CALPADS and CCI become even more robust and inclusive of CTE.

### Community College CQI

Need information here

### Adult Ed CQI

Need information here

### Moving CTE from Accountability to Continuous Quality Improvement

CTE programs that either federal- or state-funded are required to present outcomes data as part of an overall continuous quality improvement framework. Table 1 shows the match up and overlap of federal and state CTE measurement indicators. As an example, Table 1 uses for a state funded program the Career and Technical Education Incentive Grant (CTEIG), which is described more fully in Chapter 2, and compares it to the federal (Perkins) CTE measurement indicators.

**Table 1: Connecting State and Federal (Perkins) CTE Measurement Indicators**

| **State CTE Measurement Indicator (CTEIG)** | **Federal (Perkins) CTE Measurement Indicator** | **Notes** |
| --- | --- | --- |
| The high school graduation rate | Four-Year Graduation Rate | Federal indicator connected to the California Dashboard |
| The number of pupils completing CTE coursework | N/A | State and federal indicators line up with the notion of a concentrator |
| The number of pupils meeting academic and career-readiness standards as defined in the College/Career Indicator associated with the California School Dashboard | Academic Proficiency in Reading/  Language Arts, Mathematics, and Science | Federal indicator connected to the CCI and the California Dashboard |
| The number of former pupils employed and the types of businesses in which they are employed | Post-Program Placement | N/A |
| The number of pupils obtaining an industry-recognized credential, certificate, license, or other measure of technical skill attainment  The number of former pupils enrolled in any of the following:   * a postsecondary educational institution * a state apprenticeship program * a form of job training other than a state apprenticeship program | Program Quality -Recognized Postsecondary Credential  Program Quality -Attained Postsecondary Credits  Program Quality -Participated in Work-based Learning | Federal indicator connected to the CCI |

As is shown in the Perkins application (Section 2 XX), federal CTE measurement indicator are generally more defined and with the denominator and the numerator for each indicator being defined explicitly. The state CTE measurement indicators are less prescriptive giving more latitude as to how the measurement indicators are actually defined and collected. However, for the state CTE measurement indicators, every effort has been made to align them with the state’s accountability framework and College/Career Indicators. Discussions are taking place within CDE to align the federal measurement indicators to the state’s accountability framework and College/Career Indicators. Nevertheless, regardless of how CTE programs are funded, and whether the indicators are defined specifically or generally, recognizing momentum points is important for implementing a CQI process. More importantly, it requires moving from metrics or indicators to momentum points.

As shown in the table below, CTE student success can be conceptualized as occurring across the three domains: *engagement*, *achievement*, and *transition*. How these domains are measured by the state and by the local education agencies (LEAs) under Perkins and how they may be measured in future legislation are also shown.

#### Perkins V

| **Domain** | **Description** |
| --- | --- |
| **Engagement** | Attending, focusing, and specializing in coursework and work-based learning within programmatic career pathways or programs of study |
| **Achievement** | Academic performance; completing (graduating) school or college; skill development, including technical competencies, including acquiring a credential post high school |
| **Transition** | managing the swirl that takes place between education and the workplace and is reflecting in the different “stop-out” points CTE students may encounter in their movement from secondary education and postsecondary education and the workforce |

Figure 1 below shows how the various metrics and indicators that are collected within the different state and federal CTE programs are reflections of the three domains and are aligned to the various momentum points, as shown in Table 2. Some basic assumptions hold here. The metrics are definable; cross over the three domains; they are student centered measures; and the state is measuring or has the potential to measure.

**Figure 1: Aligning CA CTE Program Indicators to Momemtum Points**

**NOTE: Insert Figure**

**Table 2: Defining the metrics within each domain**

**NOTE: Insert Table**

More importantly and broadly, the domains and the momentum points undergird the CWPJAC guiding principles and the essential elements of a quality college and career pathway, with a heightened focus on access and equity. As the state moves towards better aligning across the domains, among the different state and federal programs, between education sectors, and between education work, the opportunity to have a uniform continuous quality improvement process becomes probable.

## Chapter Six: California CTE Looking Forward

**NOTE: Currently under Development**

## Appendix A: Glossary

**GLOSSARY**

**Access** – The institutions’ responsiveness to individual students’ unique social, economic, and cultural conditions to ensure all students have equal opportunities to take full advantage of their education, including a collective awareness of all the supports both inside and out of class that are available to them.

**All Students** – The State of California recognizes its deep responsibility to ensure that each and every student receives a world class 21st century education, one that supports the achievement of their highest potential. In order to accomplish this goal, it is important to continuously strive for equity in all classrooms, schools and districts by considering students’ cultural, ethnic, and linguistic background; disability; sexual orientation; economic status; and other factors.

**Attainment Gap** – Some students have limited access to well-prepared teachers/faculty and other educational resources. Recognizing the specific inequities that exist helps educators and communities to purposefully and strategically take action to strive for true educational equity for all learners.

**Career Pathway** – A coordinated, non-duplicative sequence of academic and technical content, including employability skills, at the secondary and postsecondary level that aligns with the needs of industry, and has multiple entry and exit points that culminates in the attainment of a postsecondary credential and/or employment.

**Equality** – This is the state of being equal, especially in status, rights, and educational and training opportunities or proportionality to reflect the communities being served.

**Equity** – To systemically create an environment of being fair and impartial, and be free from bias or favoritism to promote educational and employment attainment among all students, including English language learners and students with disabilities.

**Methods of Learning** –Different modes of learning may include, but is not limited to, in-person or online instruction, apprenticeship, internship, and other work-based learning opportunities; however instruction is provided, it must adjust to distinct learning needs and cultural backgrounds of students in order to lead to a certificate, credential, or degree.

**Socioeconomically Disadvantaged** – For K–12, this includes students eligible for the free and reduced priced meal program, foster youth, homeless students, migrant students, and students for whom neither parent is a high school graduate. For community colleges, this definition also includes veterans, Pell and Promise Grant qualified, and/or first generation students.

**Student-Centered** – A restructuring of policies so that the provision of education and training programs, engaging learning experiences, instructional approaches, and academic support strategies at our institutions address the distinct learning needs, interests, and aspirations while also honoring cultural backgrounds of individual students or groups of students who may have a variety of needs (including homelessness or food insecurity; need academic, cultural, and/or linguistic supports; transportation; or child care or financial aid). For community colleges, the movement to implement Guided Pathways embodies a student-centered restructuring of the student experience.

**System Alignment** – Bringing greater coherence and efficiency to curriculum, programs, initiatives, and education and training system that includes K–12, community college, and the public workforce system and beyond, with a particular focus on workforce pathways that consider regional labor market needs.

**Workforce** – People who are engaged in or are available to work, within a geographic location, or a particular company or industry.

## Appendix B: Guiding Policy Principles to Support Student-Centered K–14+ Pathways

**California Workforce Pathways Joint Advisory Committee**

**Guiding Policy Principles to Support Student-Centered K–14+ Pathways**

Posted by California Department of Education  
May 2019

### Preamble

The goal of the California Workforce Pathways Joint Advisory Committee (CWPJAC) is to build connected, equitable, accessible, and high-quality K–14+ college and career pathways for all students by: (1) signaling the infrastructure needs, (2) promoting regional and local educational agency efforts for alignment, and (3) reinforcing student supports during critical transitions leading into high school, community college, and beyond.

The *Guiding Policy Principles to Support Student-Centered K–14+ Pathways (Guiding Policy Principles)* are focused on all students and ensuring the best possible opportunities for students. The *Guiding Policy Principles* highlight salient points raised to the CWPJAC members since 2017, build upon existing practices across systems, and focus on key pressure points for supporting cross-system collaboration. They are intentionally designed to be inter-related because individually they are narrow in scope, so it’s important to view them as a complementary whole. Students benefit most by having seamless cross-system collaboration. The CWPJAC embraces the principle of continuous improvement, as it applies to its own work, thereby acknowledging that the Guiding Policy Principles, Essential Elements, Working Norms, and Glossary of Terms are dynamic and will continue to evolve and adjust over time, as necessary.

### Guiding Policy Principles

A priority is to pivot towards purposeful integration of the student experience across systems and into college and career while addressing industry needs by incorporating the following Guiding Policy Principles to:

1. Focus on a **Student-Centered Delivery of Services** for all K–14+ college and career pathways, which accommodates multiple entry points to facilitate students’ needs to build their skills as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.
2. Promote **Equity and Access** by eliminating institutional barriers and achievement gaps for all students to realize their educational and career aspirations.
3. Achieve **System Alignment** in the economic regions of the State in order to create a comprehensive and well-defined system of articulation of high-quality K–14+ pathway courses (i.e., both in-person and online) and work-based learning opportunities with a specific emphasis on career technical education (CTE). Bring greater coherence to programming, common use of terminology, appropriate data collection and sharing, and attainment of student outcomes in a timely way that lead to upward mobility in California’s industry sectors. System alignment allows for greater student portability and career advancement.
4. Support the **Continuous Improvement and Capacity Building** at all levels and components to ensure smooth transitions in the system and focus efforts on implementation of state standards, attainment of student outcomes, and a strengthening of California’s regional economies.
5. Ensure that **State Priorities and Direction Lead the State Plan** with opportunities in Perkins V leveraged to assist in accomplishing the State goals and objectives for student achievement, also known as “the California Way.”

### Essential Elements of a High-Quality College and Career Pathway

To realize the *Guiding Policy Principles* outlined above, California recognizes the importance of creating student focused essential elements of a high-quality college and career pathway:

1. **Student-Centered Delivery of Services** for all K–14+ college and career pathways incorporates the removal of institutional or systemic barriers that impede the progress of students in achieving their education and career goals. This includes a renewed commitment to offer an engaging learning experience and support the diversity of individual student needs while accommodating their multiple entry points as they progress along a continuum of education and training, or advance in a sector-specific occupation or industry.
2. Student **Equity** goes beyond the reduction of institutional barriers to create an environment of being fair, impartial and free from bias or favoritism, promote educational and employment attainment, and to eliminate the achievement gap for all students including, but not limited to, English language learners and students with disabilities in the K–14+ college and career pathway system.
3. **Access** denotes a broader vision of equity ensuring that all students are provided ample opportunities to attain the necessary skills, education and training required to maximize their individual goals including a collective awareness of all the supports that are available to students both inside and out of class. Access also facilitates the elimination of the achievement gap by providing information on how to access programs, services, and rigorous course work for all California students regardless of region, gender, socio-economic status, special needs, and/or English proficiency. Access also includes creating pathways with demonstrable careers for students.
4. **Leadership at All Levels** is required to achieve greater integration across systems and programs to ensure that the contexts for an engaging learning experience can occur and programs connect, so all students can reach across systems easily and succeed with their desired outcomes including employment, and employers have the workforce needed to thrive.
5. **High-Quality, Integrated Curriculum and Instruction** informed by labor market information, student interest, technology, industry standards, and real-world engagement through relevant work-based learning opportunities is essential to prepare students. Rigorous and aligned programs should be supported to guide students through relevant course sequences (i.e., both in-person and online) and work-based learning opportunities leading to a mastery of standards, high school graduation, and transition to postsecondary education, training, apprenticeship, and/or employment, as appropriate. Courses and programs may be designed to use cross-system strategies like dual enrollment and/or dual credit with community colleges and universities or other articulations to create a seamless student experience, and avoid unnecessary repeating of courses or other inefficient practices to facilitate “on-time” postsecondary graduation, where appropriate. Stackable badging and credentials can ensure frequency of assessment and a value-added outcome.
6. **Skilled Instruction and Educational Leadership, informed by Professional Learning,** is the cornerstone of the public education system in California. The educational experience is only as strong as the capacity and investment made in faculty, educational leaders, and the other key field talent to provide in-class, online, or work-based learning opportunities as well as developing an awareness of student support services. California encourages the culture of innovation and entrepreneurialism in program instruction and design that leads to student success.
7. The strong presence of **Career Exploration and Student Supports** is an essential component for establishing a learning plan for all K–14+ students. This includes identifying appropriate foundational courses (i.e., using competency-based learning) and information about jobs, determining student progression in a single pathway or along multiple pathways or sequences of learning, or making available in-class and online course offerings and work-based learning opportunities. To complement their learning plan, students should also have access to comprehensive counseling, individualized supports along their journey (including, but not limited to, for students who are part-time, face barriers to learning, need academic or cultural supports, transportation, child care, or financial aid), or opportunities through student leadership development organizations to achieve their individual goals and aspirations, through a variety of transitions, in an ever-changing workforce.
8. **Appropriate Use of Data and Continuous Improvement** should continue to drive CTE through relevant accountability that is outcomes-based, is supported both vertically and horizontally across systems, and ensures equity and access for all students. Continuous improvement ensures students can access the best pathways possible. Focusing on students’ and employers’ needs will allow for identification of capacity building, refinement of programs, and elimination of inefficiencies to meet the existing and emerging needs of regional economies. Through intentional sharing of specific data elements that are actionable across systems will help to showcase student attainment, including mastery of standards, and be informed by industry needs to achieve relevant system outcomes. Responsible data use is to inform practice and improve programs, not to track students.
9. Opportunities for strategic and intentional **Cross-System Alignment** should be informed by the ongoing analysis of student data, and alignment of data definitions across systems to provide, for example, deliberate sector-based programs, deployment of technical field assistance using a regional distribution, or evidence-based practices and processes to optimize pathway success and upward mobility opportunities for all participants.
10. **Intentional Recruitment and Marketing (Promotion, Outreach, and Communication)** should reflect an understanding of students’ and employers’ needs, be consistent in its messaging to stakeholders across all segments, and use tools and reports as a platform to display the added value of high-quality  
    K–14+ college and career pathway programs.
11. **Sustained Investments and Funding** **through Mutual Agreements** must be present to encourage regional alliances along with industry sector strategies,especially with a focus on current and/or emerging high-skill, high-wage, and/or high-demand occupations. This includes but is not limited to Kindergarten through Grade Twelve (K–12) Education, Adult Education, Higher Education, Labor, Economic Development Councils, Chambers of Commerce, Workforce Development Boards, career advisory boards, and regional industry alliances aligned by sector that lead to an industry-recognized credential or certificate, postsecondary training, apprenticeship, and/or employment.

### Working Norms for Fostering a Mutually-Beneficial Intersegmental Relationship

These working norms are designed to help guide state, regional and local entities in building student-centered, high-quality K–14+ college and career pathways. This collaborative work necessitates:

1. **Frequent, Open, and Intentional Communication** between Educational Agencies, Workforce Agencies, and Employers.
2. A **Mindset Shift** from insular to **Coordination of Planning** and from independent to **Interdependent Implementation of Systems** to make better use of and maximize scarce public funds.
3. A continual scan for opportunities to **Leverage, Build Upon, and/or Replicate Effective Models and Practices** in order to benefit from the scale of the State.
4. An understanding of the existing eco-system as a basis to **build a New Culture for our Institutions** and **Incentivize Behaviors and Relationships.**
5. **Ongoing Alliances** **through** **Sustained Funding** and **Mutual Agreements** in order to “stay the course” despite governance changes.
6. A **Commitment** to the work to create **Stability and Sustainability** of the K–14+ college and career pathway system.

## Appendix C: Statewide Advisory Committee

**Statewide Advisory Committee**

*(Group, Organization, Industry, or Population Represented in Parenthesis)*

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(Governor)

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Small School Districts Association  
(Secondary CTE, Administration)

Aleksei Usachenko  
SkillsUSA Chapter President  
(Students)

Michael Valdez  
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Office of Correctional Education  
(At-Risk Youth, Corrections)

Andrea Vizenor  
Director CTE  
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Fresno County Office of Education  
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Curt Williams  
Director, Foster Youth Services  
Kern County Superintendent of Schools  
(Foster Youth)

Joe Xavier  
Director, California Department of Rehabilitation  
(Special Populations)

Liz Zastrow  
Program Specialist, CA Transition Alliance Training Chair  
(Special Populations)

Tracie Zerpoli  
Superintendent, Tri-Cities ROP and CAROCP President  
(Secondary CTE, Administration)

## Appendix D: Dates of Public Meeting of the California Workforce Pathways Joint Advisory Committee

**Dates of Public Meeting of the**

**California Workforce Pathways Joint Advisory Committee**

**2017 Meetings**

* + March 10, 2017
  + May 12, 2017
  + July 14, 2018
  + September 15, 2017
  + December 16, 2017

**2018 Meetings**

* March 16, 2018
* May 11, 2018
* September 19, 2018
* November 26, 2018

**2019 Meetings**

* January 11, 2019
* March 11, 2019
* April 22, 2019
* May 29, 2019
* July 12, 2019
* September 13, 2019
* October 11, 2019
* November 8, 2019

**2020 Meetings**

* January 31, 2020
* March 13, 2020
* May 8, 2020
* July 10, 2020

## Appendix E: Responses to the US Department of Education’s Guide for the Submission of State Plans

**To meet requirements of the  
*Strengthening Career and Technical Education for the 21st Century Act*  
(Perkins V)**

**California State Plan  
for  
Career Technical Education**

In Fulfillment of the Requirements of the

**Strengthening Career and Technical Education**

**for the 21st Century Act**

*Public Law* 115–224

**California State Board of Education Board of Governors of the California**

**Community Colleges**

**California State Plan for Career Technical Education**

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**US Department of Education**

**Office of Career, Technical, and Adult Education**

**Strengthening Career and Technical Education for the 21st Century Act**

**(Perkins V) State Plan**

### I. Cover Page

1. State Name: California
2. Eligible Agency (State Board of Education) Submitting Plan on Behalf of State:

California Department of Education

1. Person at, or officially designated by, the eligible agency, identified in Item B above, who is responsible for answering questions regarding this plan. This is also the person designated as the “authorized representative” for the agency:
2. Name: Pradeep Kotamraju Ph.D.
3. Official Position Title: Director Career and College Transition Division
4. Agency: California Department of Education
5. Telephone: 916-322-6368 5. Email: [PKotamraju@cde.ca.gov](mailto:PKotamraju@cde.ca.gov)
6. Individual serving as the State Director for Career and Technical Education:

**🗹** Check here if this individual is the same person identified in Item C above, and then proceed to Item E below.

1. Name:
2. Official Position Title:
3. Agency:
4. Telephone: 5. Email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Type of Perkins V State Plan Submission – Fiscal Year (FY) 2019 (*Check one*):

* Year One Transition Plan (FY 2019 only) – *if an eligible agency selects this option, it will need only complete Items G and J.*
* State Plan (FY 2019–23) *– if an eligible agency selects this option, it will complete Items G, I, and J.*

1. Type of Perkins V State Plan Submission - *Subsequent Years* (C*heck one*):4

🗹 State Plan (FY 2020–23) – if an eligible agency selects this option, it will then complete Items H, I, and J

**□** State Plan Revisions (Please indicate year of *submission:) – if  
an eligible agency selects this option, it will then complete Items H and J*

1. Submitting Perkins V State Plan as part of the Workforce Innovation and Opportunities Act (WIOA) combined State Plan – FY 2019 (*Check one*):

**□** Yes

🗹 No

1. Submitting Perkins V State Plan as Part of a Workforce Innovation and Opportunities Act (WIOA) Combined State Plan – *Subsequent Years* (*Check one*):[[39]](#footnote-39)

**□** Yes (*If yes, please indicate year of submission):*

🗹 No

1. Governor’s Signatory Authority of the Perkins V State Plan (*Fill in text box and then check one box below):[[40]](#footnote-40)*

**Date Governor was sent State Plan for signature:**

* The Governor has provided a letter that he or she is jointly signing the State Plan for submission to the Department.
* The Governor has not provided a letter that he or she is jointly signing the State Plan for submission to the Department.

1. By signing this document, the eligible entity, through its authorized representative, agrees:
2. To the assurances, certifications, and other forms enclosed in its State Plan submission; and
3. That, to the best of my knowledge and belief, all information and data included in this State Plan submission are true, and correct.

|  |  |
| --- | --- |
| **Authorized Representative Identified in Item C Above (Printed Name)** | Telephone: |
| **Signature of Authorized Representative** | Date: |

\*This table was provided by the federal government.

### II. Narrative Descriptions

#### A. Plan Development and Consultation

1. Describe how the State Plan was developed in consultation with the stakeholders, and in accordance with the procedures in Section 122(c)(2) of Perkins V. See Text Box 1 for the statutory requirements for State Plan consultation under section 122(c)(1) of Perkins V.

**Response:**

The California State Plan for Career Technical Education (State Plan) was developed in consultation with a broad range of individuals representing a diverse group of stakeholders, as defined in Section 122(c)(2) of the Strengthening Career and Technical Education for the 21st Century Act (Perkins V). The Statewide Advisory Committee was comprised of academic and career technical education (CTE) teachers, faculty, and administrators; career guidance and academic counselors; eligible recipients; charter school authorizers and organizers consistent with state law; parents and students; institutions of higher education; interested community members (including parents and community organizations); representatives of special populations; representatives of business and industry (including representatives of small business); representatives of labor organizations in the State; and other individuals as described in Section 122(c)(1) of Perkins V. Effective activities and procedures were utilized during the State Plan development process, including providing critical information needed to actively engage in such procedures, encouraging these individuals and entities to participate in state and local decisions related to the State Plan’s development. The Governor’s Office was consulted with respect to State Plan development including the participation of the Governor’s staff in all stakeholder meetings. A list of the 52 member group is provided in Appendix A.

1. Consistent with Section 122(e)(1) of Perkins V, each eligible agency must develop the portion of the State Plan relating to the amount and uses of any funds proposed to be reserved for adult career and technical education, postsecondary career and technical education, and secondary career and technical education after consultation with the State agencies identified in Section 122(e)(1)(A)-(C) of the Perkins V. If a State agency, other than the eligible agency, finds a portion of the final State Plan objectionable, the eligible agency must provide a copy of such objections, and a description of its response in the final plan submitted to the Secretary. (Section 122(e)(2) of Perkins V)

**Response:**

The distribution of funds formula originally approved for the 2006–12 State Plan and 2019–20 State Transition Plan was approved by the California Workforce Pathways Joint Advisory Committee (CWPJAC) for the 2020–21 program year. The State Board of Education (SBE), the California Department of Education (CDE), and the California Community Colleges Chancellor’s Office (CCCCO) will convene a representative field committee for advising the CWPJAC on alternative methods for distributing these funds in subsequent years. Any changes in the current distribution of funds will be submitted as part of a revision to this State Plan.

1. Describe opportunities for the public to comment in person and in writing on the State Plan. (Section 122(d)(14) of Perkins V)

**Response:**

In accordance with Section 122(d)(14) of Perkins V and the “Guide for the Submission of State Plans,” the SBE, the CDE, and the CCCCO jointly conducted a comprehensive and thorough process to elicit public input on the State Plan. Public hearings were conducted, after appropriate and sufficient notice, for the purpose of affording all segments of the public and interested organizations and groups (including charter school authorizers and organizers consistent with state law, employers, labor organizations, parents, students, and community organizations) an opportunity to present their views and make recommendations regarding the State Plan.

The following State Plan development activities were conducted in accordance with the framework of consultations required by Section 122(c) and Section 122(d)(14) of Perkins V:

* Public meetings of the CWPJAC (See Appendix C for dates of meetings)
* Structured input from the Statewide Advisory Committee that included representation from all the required stakeholder groups
* Web-based input to draft State Plan
* Public hearings (See Appendix B for dates and locations of public hearings)

Appropriate records for these mandated consultations have been maintained.

**Statewide Advisory Committee.** The SBE, the CDE, and the CCCCO, with the assistance of the California Comprehensive Center at WestEd, conducted two virtual meetings, one in August 2019 and another in September 2019 as well as a series of daylong Statewide Advisory Committee meetings, in August 2019. The purpose of these meetings was to elicit input on the State Plan from all the required stakeholder groups. The Statewide Advisory Committee consisted of approximately 52 participants selected by the SBE, the CDE and the CCCCO.

**Web-Based Input.** A public website was developed by the California Comprehensive Center at WestEd to publicize the opportunity to review and comment on the State Plan. It included background information on the planning process, links to download appropriate information as PDF files, and a link to comment on the materials. It also included a link to subscribe to an email list to receive updates about the project. Individuals were offered the option of entering comments directly into text boxes on the website, or to email comments to staff. The website also included information about the public hearings and the means by which individuals could participate either in person or via webcast.

Beyond notifications posted on the website, individuals were informed of their opportunities to provide input to the State Plan through public notices, email notification through all pertinent listservs, and an extensive network of professional organizations.

E-mail notifications were sent to:

* The CTE project listserv
* The CDE high school listserv
* The CCCCO listservs
* All county offices of education (for distribution to districts)
* The CCCCO (for distribution to all interested staff and faculty)
* The Chancellor’s Office of the CSU (for distribution to interested staff and faculty)
* The University of California Office of the President (for distribution to interested staff and faculty)
* The California State Parent Teacher Association (for inclusion in their calendar and publications)
* The California School Boards Association (for distribution to members)
* Business and industry organizations suggested by the Joint SBE-CDE-CCCCO State Plan Steering Committee
* CTE professional associations and organizations

Notices of the field review period and the public comment meetings as well as other response options were posted per the Bagley-Keene Open Meeting Act requirements on both the CDE and the CCCCO web pages. Options individuals had for responding included:

* Web-based input (WestEd website: <http://www.wested.org/cteplan>)
* Email comments ([cteplan@wested.org](mailto:cteplan@wested.org))
* Mail or fax input to WestEd
* Regional public hearings

**Public Hearings**. For those individuals preferring to provide input to the State Plan in person, or to amplify their written input, public hearings were held on September 7, 14, 17, and 24 in Los Angeles, Fremont, Fresno, and Sacramento, respectively. The public also had the opportunity to provide input to the State Plan at the CWPJAC meetings beginning in November 2018 and spanning through November 2019. Notices of the field review period and the public hearings were posted per the Bagley-Keene Open Meeting Act requirements on the State Plan’s website, as well as on both the CDE and the CCCCO websites. Appendix B provides more detailed information about the public hearings.

#### B. Program Administration and Implementation

1. State’s Vision for Education and Workforce Development

1. Provide a summary of State-supported workforce development activities (including education, and training) in the State, including the degree to which the State's career and technical education programs and programs of study are aligned with and address the education, and skill needs of the employers in the State identified by the State workforce development board, (Section 122(d)(1) of Perkins V)

**Response:**

California’s public education system comprises Kindergarten through Grade Twelve (K–12) schools, adult schools, community colleges, state universities, and the University of California. It is regulated by a complex California Education Code (EC) and finance system that are largely controlled by the Legislature and Governor.

The State’s massive and geographically dispersed K–12 school system delivers public education to more than 6.2 million students in more than 1,000 districts and 10,473 schools. Elementary and secondary schools are responsible for preparing students with both the academic knowledge and skills needed for further education, and the technical knowledge and skills needed for entry to the world of work. The SBE has established the following vision “All California students of the 21st century will attain the highest level of academic knowledge, applied learning and performance skills to ensure fulfilling personal lives and careers and contribute to civic and economic progress in our diverse and changing democratic society.”[[41]](#footnote-41)

CTE is a primary mission of California’s community colleges as well. As the world’s largest public higher education system, serving 2.1 million students at 115 campuses and 72 educational centers or districts. Its stated vision “is to provide students with the knowledge and background necessary to compete in today's economy.”[[42]](#footnote-42) Together, the K–12, adult school, and community college systems, along with public and private sector workforce development programs, the California university system, and business and industry, make up the core of California’s vast CTE infrastructure.

California’s CTE infrastructure, from the earliest education experiences until students exit the K–12, adult school, or community college systems, is supported with funds from a broad range of resources. In addition to apportionment funds, which make up the majority of the funding, state-funded programs that support crucial aspects of CTE include: the CTE Incentive Grant (CTEIG), Strong Workforce Initiative, the California Work Opportunity and Responsibility to Kids (CalWORKs), Guided Pathways, Workability, California Partnership Academies, Specialized Secondary Programs, Agricultural Incentive Grants, and funding for CTE facilities. Key federal resources used to supplement and strengthen state efforts include the Perkins V, and the Workforce Innovation and Opportunity Act (WIOA).

**The K–12 CTE Delivery Structure**

CTE varies in focus, content, delivery, and intensity, beginning as early as elementary school and progressing throughout the middle grades, high school, and higher education. Elementary and middle grade programs primarily focus on career awareness and exploration, with the goal of awakening children’s imaginations about future possibilities. These programs consist of projects, speakers, field trips, career speakers, and later, job shadowing; they help students learn through experience, expose students to career options, and reinforce the development of knowledge and skills associated with success in future careers — and in life.

Once in high school, student opportunities for career preparation become more systematic. In the lower high school grades, CTE generally focuses on career exploration and basic skill training, which often includes beginning technical skill development, interdisciplinary activities involving essential workplace skills such as workplace readiness skills, and introductory work-based experiences such as job shadowing and service learning. In the upper grades, students can enroll in specific career preparation programs offered by their high school or by Regional Occupational Centers and Programs (ROCPs) where they learn more advanced skills from educators with experience in business and industry. They can also participate in internships and workplace learning experiences. Many high schools have committed to integrating CTE and academic coursework through career pathways or by restructuring their schools as career-focused magnets or charters, High schools have also created academies or smaller learning communities within comprehensive high schools. The K–12 system also supports apprenticeship opportunities through ROCPs, California Partnership Academies, and district adult school programs, providing on-the-job training in hundreds of occupations.

The career preparation process is supported by a counseling and career guidance system, which offers education and career planning, as well as social and emotional support.

Students in continuation, court, and community schools, and especially those incarcerated by the California Division of Juvenile Justice, are often disengaged from school and at high risk for not receiving preparation for postsecondary education and employment, and therefore have the greatest need for CTE. However, the vast majority of schools in the State’s large K–12 alternative education system do not have viable CTE programs. The needs of these students far surpass the resources available to serve them, and student mobility precludes delivery of CTE course sequences and sustained technical training. Nonetheless, some county offices of education and districts provide career exploration and internship opportunities to these students. In addition, the State’s special schools for the deaf and blind, the Division of Juvenile Justice, and the California Department of Corrections participate in the 2 percent of Perkins V state leadership funds allowed for state institutions.

**District-Supported High School Programs**. California’s 1,311 comprehensive high schools offer over 55,000 CTE classes,[[43]](#footnote-43) with the greatest concentration of enrollments in agriculture and natural resources; arts, media, and entertainment; health; and engineering and architecture. High school CTE programs offer exposure to careers and essential workplace skills, technical skill training, reinforcement of academic skills, and prepare students for both postsecondary education and careers. High school courses in Grade Nine and Grade Ten often serve as prerequisites to those offered in the higher grades.

Many high school CTE programs have integrated core academic content into their CTE classes. Similarly, many academic courses provide career-related context for their material. Two programs administered by the CDE foster this type of integration: California Partnership Academies, which require that programs have career themes, and Specialized Secondary Programs, which often have career themes but are not required to do so. Currently, there are 340 state-funded California Partnership Academies[[44]](#footnote-44) and 21 career-themed Specialized Secondary Programs. In recent years, school reform efforts such as the creation of the State funded Career Pathways Trust provided funds to develop regional partnerships between secondary schools, community colleges, and business partners with the purpose of establishing or expanding career pathway programs in grades nine through fourteen (community college). These career pathway programs are intended to prepare students for high-skill, high-wage jobs in emerging and growing industry sectors in the local or regional economy and have further facilitated the development of integrated, articulated CTE programs. In addition, many high schools develop academies and other integrated programs with internal resources, often in partnership with industry or other organizations such as Linked Learning.

In addition, high schools offer work-based learning through Work Experience Education (WEE), administered by school districts or other LEAs. WEE programs combine an on-the-job component with related classroom instruction designed to maximize the value of on-the-job experiences. WEE is intended to help students explore careers, develop essential workplace skills such as workplace readiness skills, and prepare for full-time employment. It is important in exposing students to both the requirements of a specific occupation and to “all aspects of an industry” — this broad exposure being a fundamental tenet of career exploration and important in any occupational area.[[45]](#footnote-45)

**ROCPs.** ROCPs have been a major component of California’s workforce preparation system for 40 years. Initiated in 1967 to extend and expand high school and adult CTE programs, ROCPs were established as regional programs or centers to allow students from multiple schools or districts to attend career technical training programs regardless of the geographic location of their residence in a county or region. ROCPs have recently undergone numerous changes within the structure and propose of its programs.

Beginning in the 2009−10 school year, ROCP Program funding was “flexed”, meaning those funds could be spent for any educational purpose, and could be used to support academic programs or used in areas other than CTE. In 2013-14, the ROCPs funding was rolled into a new Local Control Funding Formula (LCFF). This new state funding calculation replaced the previous K–12 finance system which had been in existence for roughly 40 years. For school districts and charter schools, the LCFF establishes base, supplemental, and concentration grants in place of the myriad of previously existing K–12 funding streams. These streams include revenue limits, general purpose block grants, and most of the 50-plus state categorical programs, including ROCPs, that existed at the time. Districts are now responsible for identifying programs and approaches that correspond with eight key priorities of districts, or ten priorities for county offices of education, through a Local Control Accountability Plan (LCAP). ROCP programs are well suited to meet many of the eight state priorities such as student engagement, student achievement, school climate, implementation of common core, and other student outcomes. Despite this shift in funding, ROCPs continue to operate and provide strong CTE programs.

Regionalization is still a primary focus of the ROCPs and provides for efficient use of limited resources, while allowing student access to a broad array of training opportunities that often require expensive technical equipment and specially trained and experienced instructors. ROCPs currently fall under one of two distinct organizational structures: school districts participating in an ROCP operated by a county office of education or school districts participating under a joint powers agreement.

Like high school programs, the purpose of ROCP is to prepare students to both pursue advanced education and to enter the workforce with skills and competencies necessary to succeed. In addition, ROCPs provide opportunities for adults to upgrade existing skills and knowledge. The programs are limited to those occupational areas with employment opportunities, postsecondary articulation, and sufficient student interest. ROCP courses are open to all secondary and adult students.

ROCP programs offer both paid and non-paid workplace experiences. ROCP instructors facilitate student placements in these workplace experiences and monitor the experiences through site visits in the field. Coordination and supervision of placements are integral aspects of an ROCP instructor’s responsibilities, with paid time allotted for these tasks.

Statewide, there are now 45 ROCPs offering a wide variety of career pathways and programs, as well as career exploration, career counseling and guidance, and placement assistance.[[46]](#footnote-46) ROCPs work with industry or pathway-specific advisory groups to update curricula annually to address labor market needs. Courses with the highest enrollments are Business or Information Technology and Industrial Technology.

**Adult Schools.** In an era of rapid technological, economic, and social change, the mission of adult education is to provide high-quality lifelong learning opportunities and services to adults. California’s adult education system supports adult learners by addressing basic literacy needs, adult basic skills in language and mathematics, English as a second language (ESL) programs, high school diploma and high school equivalency, workplace readiness skills, and CTE. Programs are funded by the State California Adult Education Program (CAEP) funds and supplemented with federal WIOA, Title II: Adult Education and Family Literacy Act (AEFLA) grant, and Perkins V funds.

The CAEP serves state and national interests by providing life-long educational opportunities and support services to all adults. The adult education programs address the unique and evolving needs of individuals and communities by providing adults with the knowledge and skills necessary to participate effectively as productive citizens, workers, and family members. Adult students can use the skills gained to achieve basic life skills, enhance employment and career opportunities, obtain citizenship, progress to career or postsecondary programs, and function in communicating more effectively in English at higher cognitive levels.

In 2017−18, 380 agencies provided classes for adults in a variety of settings , including school classrooms, community centers, storefronts, churches, businesses, jails, and migrant camps.

Adult schools provide short-term CTE courses in a variety of occupational areas, including many allied health, industrial technology, service, and business technology career fields. In particular, adult school health career training programs have strong collaborations with local medical facilities and health providers to address local employer demands. As mentioned below, adult schools also serve as the LEAs for apprenticeship programs. Many adult education CTE programs include internships, particularly in medical/health training programs. These experiences are provided in partnership with local health/medical employers and are integral to the CTE students’ certificated and/or licensed training programs.

In addition, adult schools provide Adult Basic Education (ABE) (e.g., reading, writing, computation, problem solving, interpersonal skills, enabling adults to read, write, and speak in English, acquire a high school diploma, and obtain employment); ESL; ESL-citizenship; adult secondary education leading to a high school diploma; General Educational Development (GED) qualifying students for a California High School Equivalency Certificate; classes for adults with disabilities; health and safety; home economics; parent education; and classes for older adults. School districts rely heavily on adult schools to support high school students’ pursuit of a high school diploma and as a resource for those students who don’t graduate with their class. Adult education is also implemented through the California community colleges, designated as non-credit instruction.

Apprenticeship. Apprenticeship is an on-the-job training and education delivery system that prepares individuals for employment opportunities in a wide variety of craft and trade professions. There are over 800 occupations that offer apprenticeships in California. The CDE supports apprenticeship by providing “related and supplementary instruction” (RSI) in 34 local adult education and ROCP agencies for over 200 apprenticeship programs, involving approximately 31,000 registered apprentices.

Programs in California are developed and conducted by program sponsors including individual employers, employer associations, or jointly sponsored labor/management associations. Local ROCP and adult schools individually contract with the program sponsors.

The Division of Apprenticeship Standards within the California Department of Industrial Relations administers California apprenticeship law and enforces apprenticeship standards for wages, hours, working conditions, and the specific skills required for state “journeyperson” certification.

Apprenticeship instruction is also offered through the California Community Colleges.

**State-Level Administrative Responsibility**

Within the CDE, the major responsibility for CTE policy and program oversight resides in the Career and College Transition Division (CCTD). Additionally, CCTD provides support and direction to LEAs regarding high school initiatives and adult education. An organizational chart of the CCTD and its offices is presented in Figure 1.

**Figure 1. Organizational chart of the CDE’s CCTD, 2019**

**NOTE: Insert Figure**

County Offices of Education serve as the State’s intermediary organizations, providing useful regionalized services and maintaining linkages between the State and local K–12 school districts. Given California’s immense size, its 58 County Offices of Education are organized into 11 geographic regions to facilitate collaboration, communication, and administration of CTE funds across county and district boundaries. Figure 2 describes the flow of information among the various entities.

**Figure 2. The flow of information among the local K–12 school districts  
and various state entities**

**NOTE: Insert Figure**

1. Describe the State's strategic vision and set of goals for preparing an educated and skilled workforce (including special populations), and for meeting the skilled workforce needs of employers, including in existing and emerging in-demand industry sectors and occupations as identified by the State, and how the State's career and technical education programs will help to meet these goals. (Section 122(d)(2) of Perkins V)

**Response:**

The vision for California’s CTE system describes where the State wants to be in the future, sets the stage for building a new student-centered system, and inspires action.

*CTE will engage every student in high-quality, rigorous, and relevant educational pathways and programs, developed in partnership with business and industry, promoting creativity, innovation, leadership, community service, and lifelong learning to give all learners the opportunity and support necessary to realize their full potential.*

The mission statement defines the role of CTE in propelling the State toward its vision.

*The mission of CTE is to build industry-linked, aligned, equitable, and accessible high-quality Kindergarten through Grade Fourteen plus   
(K–14+) college and career pathways that enable all individuals to reach their career goals in order to achieve economic self-sufficiency, compete in the global marketplace, and contribute to California’s economic prosperity.*

In order to achieve this vision and respond to our mission, the CWPJAC established the Guiding Policy Principles to Support Student-Centered K–14+ Pathways (Guiding Policy Principles) (Appendix G). With a focus on all students and ensuring the best possible opportunities for students, the Guiding Policy Principles pivot the State towards purposeful integration of the student experience across systems and into college and career while addressing the needs of business and industry.

The Guiding Policy Principles take a student-centered approach to the delivery of services, promote equity and access, are intended to achieve system alignment through continuous improvement and capacity building, and ensure that state priorities lead the State Plan.

The vision, mission, and Guiding Policy Principles provide a framework that demands commit­ment from the full range of state and local stakeholders to improve CTE and the education system as a whole. Achieving this vision will require systemic collaboration across the full spectrum of an individual’s life from Kindergarten through Grade Twelve (K−12) and postsecondary education into the workforce. The success of this vision is incumbent upon the support and commitment of the people—the leaders, practitioners and partners at every level—who are the key to advancing these actions and turn policy into practice.

Consistent with the vision, mission, and Guiding Policy Principles, the Statewide Advisory Committee developed the following system goals that will guide CTE in California. The following goals provide direction for establishing objectives that are realistic, attainable, timely, and measurable:

* All students completing high school will be prepared for success in postsecondary education — including community college, four-year college, apprenticeship, adult school, trade school, military, or other education and training — and for employment and long-term careers.
* Adults in California will be prepared with the skills and knowledge needed to reach their career goals and maintain economic self-sufficiency, through access to information, guidance, support services, and educational opportunities offered in adult schools, ROCP, and community college programs.
* Every student will have the opportunity and the support necessary to complete a rigorous CTE course or pathway prior to graduating from high school.
* Age-appropriate career guidance information and experiences will engage all students throughout their Kindergarten through Grade Fourteen (K–14) educational experience in exploring, planning, managing, and reaching their educational and career goals.
* All CTE courses and programs will be based on industry-endorsed standards and designed to assist all students in acquiring employment readiness and career success skills.
* All CTE courses and programs will meet documented labor demands, including those of new and emerging occupations.
* Statewide programs of study, dual enrollment, articulation of coursework, guided pathways, and related processes will be established to facilitate smooth student transitions from middle school to high school, and into postsecondary education and training.
* Business, industry, and labor participation will be incorporated into all components of the CTE system at the local, regional, and state levels.
* Teacher preparation programs, specifically in CTE, and sustained professional development (PD) will be substantially expanded to ensure an adequate supply of highly prepared instructors. Teachers in all industry sectors and at all educational levels will have the skills necessary to provide rigorous and relevant instruction designed to meet diverse student needs.
* Comprehensive data collection systems will be developed and coordinated to support ongoing program improvement, program accountability, measurement of system outcomes, and research.

Achieving these goals requires focused attention and strategic investments in both the CTE system overall and its component parts, at the State, regional, and local level.

1. Describe the State’s strategy for any joint planning, alignment, coordination, and leveraging of funds between the State's career and technical education programs and programs of study with the State's workforce development system, to achieve the strategic vision and goals described in section 122(d)(2) of Perkins V, including the core programs defined in Section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102) and the elements related to system alignment under Section 102(b)(2)(B) of such Act (29 U.S.C. 3112(b)(2)(B)); and for programs carried out under this title with other federal programs, which may include programs funded under the Elementary and Secondary Education Act of 1965 and the Higher Education Act of 1965. (Section 122(d)(3) of Perkins V)

**Response:**

The CTE Joint Management Team (JMT), comprises appointed staff from the CDE and the CCCCO, is responsible for the joint planning and coordination of programs conducted under Perkins V.

* Cooperatively plan and discuss items of mutual concern and resolve issues related to the administration and operation of all state and federally funded CTE programs and services, including Perkins V
* Plan and coordinate support services to the CWPJAC, including preparation of agendas, meeting minutes, reports, and staff recommendations
* Participate in the planning, development, dissemination, implementation, and evaluation phases of the State Plan, and provide LEAs with information on the process and specific timelines to develop and/or amend the State Plan
* Establish procedures for addressing local performance
* Plan and coordinate data collection and statistical and narrative information for the annual fiscal and performance reports as required by state and federal regulations
* Evaluate the State’s performance in reaching established goals
* Develop operational definitions and methods of verification for core indicators, division of funds, program review, program compliance, and fiscal and performance reporting
* Recommend committee appointments as needed to ensure compliance with the State Plan
* Address other topics of mutual concern and interest pertaining to state and federally funded CTE programs and services
* Serve as professional staff providing support to the CWPJAC

1. Describe how the eligible agency will use state leadership funds made available under Section 112(a)(2) of the Act for purposes under section 124 of the Act. (Section 122(d)(7) of Perkins V)

**Response:**

The CDE and the CCCCO staff will utilize the state leadership funds to provide LEAs and state institutions with technical assistance to enhance the elements, content, design, instruction, accountability, funding, and success of CTE pathways in the schools and colleges. State leadership funds are used by both agencies to provide needed curriculum development, PD, and technical assistance activities. The CDE and the CCCCO staff assign a high priority to ensuring that LEA administrators, teachers, and instructors are provided with the statewide workshops, presentations, conferences, and a variety of oral and written technical assistance and training activities needed to effectively administer and use state and federal CTE funds.

Much of the PD activity and technical assistance directed to improve special population student access to CTE programs and the support services needed to enhance their success in the programs emanate from actions undertaken or recommended by the JSPAC described in the next section. Noteworthy efforts include career awareness programs; counseling and guidance for students with special needs; supportive services such as transportation, child care, and assistance with books and tuition; appropriate use of needed technology; special training for CTE teachers and administrators; and PD targeted to the total school population to foster and ensure an equitable climate for special population students.

The CCCCO supports seven regional consortia with Perkins V state leadership funds. The regional consortia convene CTE stakeholders, including CTE faculty, district and college administrations, grant managers, employers, and K−12 partners, to facilitate coordination and improvement of CTE programs. The regional consortia structure is a particularly effective and efficient structure for bringing statewide initiatives to the regional and local level through informational meetings, communication, training, and field-based feedback on an ongoing basis. Additionally, consortia services include, but are not limited to, ongoing assessment and regional/sub-regional planning, marketing, dissemination of data, curriculum review and approval, collaborative exchanges, and coordination. The regional consortium is in a key position to promote collaborative partnerships and joint ventures among a wide range of business and industry partners.

2. Implementing Career and Technical Education Programs and Programs of Study

1. Describe the career and technical education programs or programs of study that will be supported, developed, or improved at the State level, including descriptions of the programs of study to be developed at the State level and made available for adoption by eligible recipients. (Section 122(d)(4)(A) of Perkins V)

**Response:**

Considering California’s vast physical size, geographic variances, population variables, and economic differences, it is important to design and implement a wide variety of high-quality programs of study throughout the State. These programs must meet the educational and technical skill needs of a diverse student population, many of whom are not proficient in English, have special needs, or may be the first in their families to attend college or postsecondary training. California believes it is imperative to provide eligible recipients with the appropriate structure and guidance along with suitable flexibility to develop high-quality programs of study in order to ensure that California’s system is student-centered, demand-driven, continuously responsive to the diversity of California, and the ever-changing needs of a complex global workplace.

Implicit in the concept of programs of study development is the issue of division of responsibility among state, regional, and local agencies. Given that California, historically and by design, is a “local control state” in all of the areas of CTE activity there exists a dichotomy between the need for local control and the need for state involvement and regional structures. Local control allows eligible recipients flexibility, promotes fiscal responsibility, fosters timely responsiveness to regional needs and local communities, promotes innovative practices, and supports the vision for collaborative regional work. State involvement is needed to provide a state-wide vision, develop a policy framework, provide oversight, monitor the attainment of statewide goals and program effectiveness, and at the same time can promote economies of scale, the sharing of effective practices, and incentivize cooperative relationships at all levels to maximize student outcomes. Additionally, because of the size and diversity of California, a regional approach is often the most appropriate; it addresses the need for responsiveness, on the one hand, and coordination, on the other.

California’s secondary agencies, postsecondary educational institutions, and workforce development partners continue to invest in CTE system development to ensure the most effective, equitable, and efficient use of both state and federal resources in the development of strong programs of study (referred to as career pathways in California). This investment is supported with the evolution of the State’s system of accountability and continuous improvement following enactment of the 2014 LCFF, the development of the LCAP, the new accountability and continuous improvement system, the CTEIG, the K–12 Strong Workforce Program (K−12 SWP), Guided Pathways Framework, and new Student-Centered Funding Formula for California community colleges. All these initiatives are intended to provide additional funding and flexibility to help expand access and focus on equity in educational opportunities for all students. Furthermore, a common theme among all new state funding systems are weighted formulas for supporting disadvantaged students. All of California’s efforts are further supported through the federal WIOA, Every Student Succeeds Act (ESSA), and Perkins V.

California’s aspirations for vibrant career pathways are best expressed in the CWPJAC’s Guiding Policy Principles document:

* Focus on student-centered delivery of services
* Promote equity, and access
* Achieve system alignment
* Support the continuous improvement, and capacity building at all levels
* Ensure that state priorities and direction lead the State Plan

These Guiding Policy Principles are reflective of the vision for the development, operation, and improvement of career pathways in California and build upon California policy changes which have transpired in recent years. To realize the Guiding Policy Principles outlined above, California recognizes the importance of the following essential elements of high-quality college and career pathways:

* Student-centered delivery of services
* Equity
* Access
* Leadership at all levels
* High-quality, integrated curriculum, and instruction
* Skilled instruction and educational leadership, informed by professional learning
* Career exploration and student supports
* Appropriate use of data, and continuous improvement
* Cross-system alignment
* Intentional recruitment and marketing (promotion, outreach, and communication)
* Sustained investments and funding through mutual agreements

All these elements must be present to ensure that California can realize its goals of preparing all students for their future as productive participants of California’s workforce while ensuring a strong, growing economy. In addition, these components define high-quality CTE pathways at the regional and local level and are further mirrored in the “programs of study” language as defined in Section 3(41) of Perkins V. In other words, CTE is a system that requires leadership, high-quality practice grounded in standards and enriching work-based learning opportunities, alignment across educational and workforce partners, skilled practitioners, accountability at all levels based on multiple measures and promote continuous improvement, and emphasis on a strong commitment to a student-centered approach.

For the 2019–20 program year, all eligible recipients will be required to provide at least one program of study (POS), as they have during Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV), which:

* Incorporates secondary education and postsecondary education elements;
* Includes academic and CTE content aligned with approved State CTE Model Curriculum Standards (CTEMCS) in a coordinated, non-duplicative progression of courses;
* Provides relevant early college credit opportunities, including dual credit, statewide and locally-articulated credit, advanced placement and/or international baccalaureate credit;
* Makes available work-based learning activities, and capstone experiences for each POS;
* Has multiple entry and exit points, and
* Leads to an industry-recognized credential or certificate at the postsecondary level, an Associate’s or Bachelor’s Degree.

California will continue to work with other state, regional, local agencies, and CTE stakeholders in developing criteria for a range of career pathways aligned with state policies and initiatives, ESSA, WIOA, and Perkins V. Approved career pathways offered at the local or regional levels will be identified by the CDE and the CCCCO staff through reviews of local plans and applications, and on-site monitoring visits. Information on these pathways and strategies for their implementation will be disseminated electronically, and through a variety of statewide PD activities.

1. Describe the process and criteria to be used for approving locally developed programs of study or career pathways (see Text Box 3 for the statutory definition of career pathways under section 3(8) of Perkins V, including how such programs address state workforce development, and education needs and the criteria to assess the extent to which the local application under Section 132 will—
   * 1. promote continuous improvement in academic achievement and technical skill attainment;

**Response:**

As noted in the response to B(2)(a), each eligible recipient receiving 2019–20 Perkins V funds will be responsible for submitting a minimum of one POS that meets Perkins V requirements, and the requirements as set forth in the current State Plan for CTE with the application for 2019–20 funding. To be approved, a POS must demonstrate integration of general academic courses, incorporate a full sequence of CTE courses from introductory to capstone, and include at least one locally approved early college credit course, or align with an industry recognized credential or certificate of achievement.

All career pathways are required to demonstrate alignment to the CTEMCS, as well as the State Standards for Career Ready Practice to support the attainment of employability, technical, and academic knowledge and skills. State law ensures that all eligible recipients provide support systems, including differentiated instruction, for students who are members of special populations. This ensures special population students have access to CTE programs, including all CTE related activities and supports like work-based learning and Career Technical Student Organizations (CTSOs).

To facilitate the discussions at local institutions and assist with the process of developing strong career pathways, templates are made available to secondary and postsecondary agencies throughout the State. These templates represent CTE pathways typically offered at high schools, ROCPs, adult schools, and community colleges and include the approved Transfer Model Curriculum in each pathway. The templates were developed by groups comprised of CTE and academic faculty from high schools, ROCPs, adult schools, and community colleges, with input from business and industry. Agencies developing local or regionally defined programs of study must include a completed POS template along with the annual application for approval.

The University of California Curriculum Integration (UCCI) project provides opportunities for California teachers to design UCCI's innovative courses, which integrate “A−G” academic work with CTE, to help students prepare for college while they explore potential career paths. The UCCI courses meet “A−G” course requirements for freshman admission to California State University (CSU) and University of California (UC) campuses, making them valuable components of schools' CTE programs.

All of these processes and criteria begin to define a framework for developing high-quality career pathways in California. With a focus on the Guiding Policy Principles and through consultation with stakeholders, this framework will be refined in the future. The framework will account for necessary differences between secondary and postsecondary programming, encourage local eligible recipients to align local and regional pathway programs, be responsive to local and regional workforce development and educational needs, provide the basis for the State to certify programs of study, and allow state agencies to measure student outcomes. California established framework will provide the criteria for developing strong local and regional pathways as ways to promote continuous improvement in academic achievement and technical skill attainment for all students.

During 2019–20, the State will utilize the State Plan development process to identify the most viable options for approving locally developed career pathways or any additional criteria for approval in subsequent years. Options to be considered include: (1) requiring each eligible recipient to develop and implement its own career pathways based on state-established criteria; (2) developing and implementing the programs at the local and/or regional level through state funded competitive grants or other incentives; or (3) developing and implementing the programs through collaborative efforts, supported at the State level, that could be adopted by local agencies or regional collaboratives.

* + 1. expand access to career and technical education for special populations; and

**Response:**

California is dedicated to expanding access to CTE pathways, especially for special student populations. The CWPJAC has defined access as an essential element of a high-quality CTE pathway, and believes all students should be provided ample opportunities to attain the necessary knowledge and skills required to maximize their individual goals. California also believes that high-quality CTE pathways that integrate CTE and academics provide a way to increase readiness, attainment of postsecondary credentials, career advancement, and economic stability for all genders, races, socioeconomic backgrounds, and ability levels. Eligible recipients are encouraged to design career pathways that are inclusive of special student populations, driven by labor market demand, combine an academic core with a challenging sequence of technical courses, aligned across secondary and postsecondary levels, provide ongoing guidance and support systems, and lead to postsecondary credentials and degrees.

As California begins work on the development of the new State Plan through collaboration with stakeholders, the State aims to further address equity and access barriers in CTE programs enrollment, participation, and completion through the identification of criteria and a state framework. The new State Plan will provide the foundation for state expectations, and will be further supported by monitoring reviews and technical assistance to provide concrete examples of how to expand access to CTE for special populations as well as reviewing student outcome data as a way to verify that access permeates throughout funded programs of study to address any inequities. High-quality career pathways can help to eliminate achievement gaps by providing information on how to access programs, services, and rigorous course work for all California students regardless of region, gender, socioeconomic status, special needs, and/or English proficiency.

The State will continue to invest in providing access to high-quality CTE programs and welcomes the new provision in Perkins V of requiring states to utilize a portion of their allocation in the recruitment of special populations to enroll in CTE programs.

* + 1. support the inclusion of employability skills in programs of study and career pathways (Section 122[d][4][B] of Perkins V)

**Response:**

As stated in the response to B(2)(b)(i), all eligible recipients are required to integrate employability skills in career pathways offered at the local and regional level, and will be expected to provide evidence of this in their local application for funds. California provides a variety of resources to encourage and support the teaching of employability skills. These include the State adopted the Standards for Career Ready Practice, numerous PD activities, a variety of online resources, frequent trainings and conferences, and funding incentives. California looks forward to consulting with stakeholders to expand and refine existing resources as the State’s commitment to continuous improvement.

1. Describe how the eligible agency will—
   * 1. make information on approved programs of study and career pathways (including career exploration, work-based learning opportunities, early college high schools, and dual or concurrent enrollment program opportunities) and guidance and advisement resources, available to students (and parents, as appropriate), representatives of secondary and postsecondary education, and special populations, and to the extent practicable, provide that information and those resources in a language students, parents, and educators can understand;

**Response:**

Information on approved programs of study and career pathways is available to students, teachers, parents, counselors, and other CTE stakeholders through a variety of resources provided by the State, county offices of education, LEAs, adult schools, postsecondary institutions, and regional partnerships. A few of the State level resources include:

* **CTE Online**: A free online resource devoted to connecting CTE and academic educators to quality CTEMCS, shared communities of practice and PD tools. The site includes thousands of lesson plans aligned to CTE, Common Core and Next Generation Science Standards, as well as Integrated Science, Technology, Engineering, Art, and Mathematics (STEAM)/Science Technology, Engineering, and Mathematics (STEM) projects, model course outlines, and sample programs of study. CTE Online also provides tools for users to create their own curriculum and collaborate in groups. To view the full resources available, please visit the CTE Online website at: [https://www.cteonline.org](https://www.cteonline.org/).
* **CTE Teach**: Supports the unique needs of new CTE teachers transitioning from an industry into the classroom, as well as veteran CTE teachers. CTE TEACH provides training and PD through an online early orientation program, an online PD program, and a two-year teacher induction program. To view the training and PD resources, please visit the CTE Teach website at: <https://cryrop.org/Educators/CTE-Teach/index.html>.
* **CalCRN**: The California Career Resource Network (CalCRN), program provides free online and mobile tools for teachers, students, and parents, with career development information and resources to support development of critical career self-management skills. The program includes career and college readiness lesson plans and curriculum, career awareness and exploration activities, as well as tools for supporting students in the preparation of four-year plans and portfolios. Selected resources are available in English and Spanish. To view CalCRN online resources, please visit the CalCRN website at: [https://www.californiacareers.info](https://www.californiacareers.info/).
* **Strong Workforce Program**: A free online resource available to all CTE stakeholders, includes career and labor market information, as well as information and support for pursuing high wage, high skill, high need labor market driven CTE programs available in the State’s 115 community colleges. To view career and labor market information, please visit the CCCCO’s website at: [https://doingwhatmatters.cccco.edu](https://doingwhatmatters.cccco.edu/).
* **Guided Pathways Framework**: A program designed to improve student outcomes and attainment of postsecondary degrees and credentials. Guided Pathways focuses on counseling and student support to ensure that students stay on-track for course completion and graduation from a community college. To view the guided pathways program, please visit the CCCCO’s website at: [https://cccgp.cccco.edu](https://cccgp.cccco.edu/).
* **Dual Enrollment Opportunities:** The State has purposefully created multiple options for dual enrollment through several new initiatives in order to expand the access of special populations and targeted student groups specifically to ensure these students have access to dual enrollment opportunities.

Beyond these sources, CTE stakeholders including students, parents, representatives of secondary and postsecondary education, and special populations, are informed about programs of study through an assortment of state, regional, and local, sources that include email notifications, mailing lists, PD activities, and assistance provided by many CTE partner organizations. Additionally, eligible recipients provide counseling services, informational documents, career fairs, college nights, and other opportunities for students, parents, and other interested individuals. The CDE requires eligible recipients to provide information and services in the students and parents primary language if 15 percent or more of the pupils enrolled in that agency, speak a primary language other than English.

California used the 2019–20 transition year to receive feedback on available resources and consider ways to improve how information about approved programs of study are shared with and accessed by students, parents, representatives of secondary and postsecondary institutions, and special student populations.

* + 1. facilitate collaboration among eligible recipients in the development and coordination of career and technical education programs and programs of study, and career pathways that include multiple entry and exit points;

**Response:**

The past 10 years have seen an unprecedented investment in career-related educational reform in California. Beginning in 2014, the State passed legislation to provide $500 million through the California Career Pathways Trust (CCPT) initiative to fund support for career pathways. The CCPT language directed the funds to be used “for K–14 career pathways programs,” linking K−12 with community college. This expanded investment in CTE and the development of Kindergarten through K−14+ career pathways was done to address both educational and economic concerns.

Securing a CCPT grant required evidence of support from a broad coalition of community partners who agreed to work together as a region in achieving the goals of the proposal. These regional coalitions include K−12 public and charter schools, postsecondary institutions, business and industry, labor unions, and community based organizations.

In addition to the CCPT funding, the Governor’s 2015 budget includes $900 million over three years for CTEIG. These grants will go to programs that lead to industry certifications or postsecondary training. Partnerships with local colleges, businesses, and labor unions were required. These two funding opportunities provide probably the largest state funding of career programs in the nation.

To develop more workforce opportunity and lift low-wage workers into living-wage jobs, California took a bold step in 2016, when the Governor and Legislature approved the Strong Workforce Program (SWP), adding a new annual recurring investment of $248 million to spur CTE in the nation’s largest workforce development system of 115 community colleges.

This new ongoing funding is structured as a 60 percent Local Share allocation for each community college district and a 40 percent Regional Share determined by a regional consortia of colleges to focus on the State’s seven macro-economic regions. Both the Local and Regional Share require local stakeholders to collaborate, including industry and local workforce development boards. As much as possible, this program builds upon existing regional partnerships formed in conjunction with the federal WIOA, state CAEP, and public school CTE programs.

The CCCCO, in partnership with the CDE, work collaboratively on the K−12 component of the SWP. Beginning in 2018−19, the State appropriated $150 million in annual ongoing CTE funding to strengthen CTE pathways for students from secondary to postsecondary education.

The K−12 SWP intends to create, support, and/or expand high-quality career pathways at the K−12 level that are aligned with the workforce development efforts occurring through the community college SWP and regional priorities.

The goal of the K−12 SWP is to increase the levels of college and career readiness among students which will support their successful transition from secondary education to postsecondary education and, ultimately, to career.

As California moves forward with the implementation of the new State Plan for CTE, and takes a turn towards a more purposeful integration of the student experience across systems and into college and career while addressing industry needs, we maintain our commitment to encouraging collaboration in the development and coordination of career pathways that include multiple entry and exit points.

* + 1. use State, regional, or local labor market data to determine alignment of eligible recipients' programs of study to the needs of the State, regional, or local economy, including in-demand industry sectors and occupations identified by the State board, and to align career and technical education with such needs, as appropriate;

**Response:**

In recent years, the number of data sources for labor market information has grown considerably. The use of this data by educational agencies to inform program development and drive instructional practices, while not yet prevalent in K−12 CTE programs, has been common place in the California Community College system for several years.

The Centers of Excellence (COE) is a grant-funded technical assistance provider working with the CCCCO, community colleges, regions, and sector networks to help regions respond effectively to workforce needs. Strategically located in seven regional centers across the State, the COE study the regional economies of California, support the community colleges by providing customized data on high growth, emerging, and economically-critical industries and occupations, and related workforce needs. The COE helps to identify opportunities and trends in high growth, emerging, and economically critical industries and occupations. With the goal of helping regions respond to workforce needs, the COE provides quality information for decision-making, including gap analysis between labor market demand, available training, and existing or future workers. The COE deliver regional workforce research and technical expertise through various reports and tools designed to enable community colleges to remain relevant and responsive in their offerings.

In 2015, the COE developed two documents to help community colleges find and effectively use labor market data. The guides Making Use of Labor Market Data and Understanding Labor Market Information Resources provide detailed information on where to find and how to use labor market data to help with common community college decisions. These guides can be found online at the COE’s website at, [http://www.coeccc.net](http://www.coeccc.net/).

The (CalCRN is a program within the CDE as established in California *EC* Section 53086.

The CalCRN's mission is to provide all persons in California with career development information and resources to empower them to reach their career goals. The primary duty is to distribute career information, resources, and training materials to middle school and high school counselors, educators, and administrators to ensure that middle and high schools have the necessary information available to guide and instruct students on the education and requirements necessary for career development.

The CalCRN resources contain career exploration tools including career planning, self-assessment, methods of investigating the work world, identifying and meeting education and training needs, and developing a career action plan. The CalCRN assists students in acquiring and developing career competencies including the appropriate skills, attitudes, and knowledge necessary to be successful in any career. The CalCRN also provides information about the labor market and career opportunities.

The California Economic Development Department Labor Market Information Division (LMID) provides data and links to resources that job seekers can use to assist with searching for jobs. Individuals can use the Occupational Guides or Occupation Profile to locate wages, benefits, training, and other information to explore career opportunities. Employment projections estimate the changes in industry and occupational employment over time resulting from industry growth, technological change, and other factors. California produces long-term (10 year) projections of employment every 2 years for the State and local areas. Statewide short-term (2 year) projections are revised annually. The projections include occupations with the most openings and the fastest growing occupations in the State.

Each month the LMID releases revised and preliminary civilian labor force, unemployment rates, and industry employment by geography for California statewide, metropolitan areas, counties, and sub-county areas. In addition, LMID provides California economic data, demographic and occupation information through its Data Library which provides access to view and download data and information related to California industries, occupations, employment projections, wages, and labor force.

* + 1. ensure equal access to approved career and technical education programs of study, and activities assisted under this Act for special populations;

**Response:**

Perkins V requires the State Plan to describe strategies to ensure special populations equal access, nondiscrimination, and programs to enable them to meet the state levels of performance, while state leadership requirements dictate that the State assess the needs of special populations, promote preparation for nontraditional fields, and provide instructional and/or support programs for special populations. The State affirms its continuing commitment to provide and ensure equal access to CTE programs and support activities and services for all secondary and postsecondary students who elect to enroll in these programs, particularly members of special populations. As stated earlier in this State Plan, the goal of the CWPJAC is to build connected, equitable, accessible, and high-quality K–14+ college and career pathways for all students.

The Guiding Policy Principles are focused on all students and ensuring the best possible opportunities for students. Taking a student centered approach toward equity and access for all students and eliminating institutional barriers and achievement gaps is a primary focus of the new CTE in California.

As required by Perkins V, LEAs must disaggregate and report data for each of the core indicators of performance and for each special population group. Much of the State’s current difficulty in collecting accurate and consistent special population student enrollment data in its K–12 and adult programs will be resolved by the upcoming implementation of a new student-level data system. The availability of this information on the special population groups in the K–12 and adult education systems will also enable LEAs to objectively develop and implement strategies to inform these students about available CTE programs and services. It will also ensure that they have equal access to the programs, and that they are provided with the support services needed for successful completion of the programs and placement.

Furthermore, the State requires LEAs to design educational environments that are attuned to the needs of special population students. This includes developing and/or disseminating training and informational materials for administrators, faculty, counselors, and student support staff to assist students who are members of special populations gain access to and succeed in quality CTE programs; providing adaptive equipment and services; and increasing the flexibility of program schedules to accommodate working students and students with young children.

In meeting the requirement of the federally mandated Vocational Education Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex, and Disability, the CDE and CCCCO provide continuous oversight and technical assistance to schools and colleges with respect to ensuring nondiscrimination of students who are members of special populations. California community colleges and selected secondary school districts systematically receive annual statistical reviews or audits of programs and enrollments to ensure equal access and compliance with policies related to race, sex, disability, limited English proficiency, salary, hiring practices, harassment, and technology. The ongoing federal Office of Civil Rights (OCR) compliance reviews conducted by both agencies and the continuous oversight and monitoring by the Departments’ assigned staff members ensure that special populations are not discriminated against in programs and classes, and that all special population groups have access to all programs.

The OCR provides guidance that secondary, adult, alternative school agencies, and community colleges receiving Perkins V funding comply with the CTE-Civil Rights regulations and that state-administered compliance reviews meet all OCR-approved timelines. Biennial site visit schedules and targeting plans will continue to be developed and submitted for OCR approval and both agencies will continue to submit CTE-Civil Rights reports as required by the OCR.

Responsible use of data to inform practice and improve programs should continue to drive CTE through relevant accountability that is outcomes-based, is supported both vertically and horizontally across systems, and ensures equity and access for all students. Continuous improvement ensures students can access the best pathways possible. Focusing on students’ and employers’ needs will allow for identification of capacity building, refinement of programs, and elimination of inefficiencies to meet the existing and emerging needs of regional economies. Through intentional sharing of specific data elements that are actionable across systems will help to showcase student attainment, including mastery of standards, and be informed by industry needs to achieve relevant system outcomes. California believes in the appropriate use of data to inform practice and improve programs, not to track students.

K–12 and adult education will continue to develop and use a variety of program organization and instructional strategies to motivate and engage all students, including those who are members of special populations, in higher math and science as well as CTE courses. These strategies will enable special populations to meet high school graduation requirements, prepare for entry into nontraditional, high skill, high wage, or high demand occupations, and prepare for further education or training. Additional support for students to gain knowledge regarding specific industry clusters and acquire leadership skills is provided through CTSOs and other student leadership activities.

California will continue to use the maximum amount of Perkins V Section 112(a)(2)(B) nontraditional set-aside funds and Section 112 (a)(2)(C) funds for the recruitment of special populations to enroll in CTE programs, to fund the JSPAC. The JSPAC provides expert state leadership to facilitate and improve access to quality CTE programs and the necessary support services for special populations to achieve nontraditional, high skill, high wage, or high demand occupations that lead to self-sufficiency. Since its formation in 2000–01, the JSPAC has been jointly supported by the CDE and the CCCCO. The 30 member JSPAC represents the education community served by the CDE (K–12, ROCPs, and adult education), the 15 California Community College Districts, and private and public sector groups, including representatives from industry, labor, professional organizations, community-based organizations, affiliated agencies, and/or four-year universities. Additional information about the JSPAC is located on the JSPAC website at, [http://www.jspac.org](http://www.jspac.org/).

The JSPAC has focused its efforts on bringing about the following school and college improvements intended to ensure special population student access and success in the State’s CTE programs:

* Outreach and recruitment to increase student/parent awareness of educational/career options
* Career support (career development and exploration, field trips, mentoring and exposure with a focus on career paths that include high skill, high wage, or high demand jobs)
* Academic support (advisement, tutoring, and special instructional classes)
* Financial support (for childcare, transportation, books, and instructional materials)
* Access to technology (special populations need technology skills to succeed)
* Staff development (staff need to be informed about the specific needs of special populations and provided with the most effective tools and strategies to assist special population students. Many of these students fall into more than one special population category and face multiple barriers.)

Examples of support services available to special population students include:

* Linkages to support services on and off campus
* Support for child care, transportation, and other needs to support their education
* Participation in CTSOs; educational, skills, and interest assessment; and academic and career counseling
* Financial aid
* Matriculation services
* Remedial education or basic skills programs
* Strengthening skills in mathematics and science
* Noncredit instruction
* Vocational English as a Second Language courses
* Apprenticeship and pre-apprenticeship programs
* Learning laboratories
* Tutoring, coaching, and mentoring
* Assistance with study and test-taking skills
* Placement and employment services

With online access to up-to-date employment information and job skills requirements, faculty, counselors, librarians, and instructional support personnel effectively help special population students make informed career choices, including nontraditional, high skill, high wage, or in-demand occupations that lead to self-sufficiency and/or toward a baccalaureate degree or higher.

In California, labor information is collected, analyzed, and reported by the LMID of the Employment Development Department (EDD). The CDE’s Secondary, Postsecondary, and Adult Leadership Division and the CCCCO collaborate with other state agencies such as EDD and the California Workforce Investment Board to provide student access to online resources for career information and workforce opportunities through One−Stop Career Centers and other online workforce sites.

* + 1. coordinate with the State board to support the local development of career pathways and articulate processes by which career pathways will be developed by local workforce development boards, as appropriate;

**Response:**

California *EC* Section 12053 designates the SBE as the State board of vocation education, which is the sole state agency responsible for the administration or the supervision of the State CTE programs. This section also recognizes the need for coordinated delivery of CTE in California and requires the SBE and the Board of Governors (BOG) of the California community colleges to enter into a memorandum of understanding to do all of the following:

* + Provide for an advisory committee composed of an equal number of members of each board
  + Assure shared planning and coordination
  + Delegate to the BOG the maximum responsibility in administration, operation, and supervision of policies and procedures related to community college CTE programs provided in federal law.

Through this memorandum of understanding (Appendix F), the CWPJAC was established. The CWPJAC addresses systems alignment policies specific to career pathways within the context of recent and future state and federal investments and makes recommendations to the SBE for consideration.

The Pathways Joint Management Team, comprised of appointed staff from the CDE and the CCCCO, is responsible for the joint planning and coordination of California career pathways. The committee will meet monthly to:

* Cooperatively plan and discuss items of mutual concern and resolve issues related to the administration and operation of all state and federally funded CTE programs and services, including Perkins V.
* Plan and coordinate support services to the CWPJAC, including preparation of agendas, meeting minutes, reports, and staff recommendations.
* Participate in the planning, development, dissemination, implementation, and evaluation phases of the State Plan, and provide LEAs with information on the process and specific timelines to develop and/or amend the State Plan.
* Establish procedures for addressing local performance
* Plan and coordinate data collection and statistical and narrative information for annual fiscal and performance reports as required by state and federal regulations
* Evaluate the State’s performance in reaching established goals
* Develop operational definitions and methods of verification for core indicators, division of funds, program review, program compliance, and fiscal and performance reporting
* Recommend committee appointments as needed to ensure compliance with the State Plan
* Address other topics of mutual concern and interest pertaining to state and federally funded CTE programs and services
* Serve as support staff to the CWPJAC
  + 1. support effective and meaningful collaboration between secondary schools, postsecondary institutions, and employers to provide students with experience in, and understanding of, all aspects of an industry, which may include work-based learning such as internships, mentorships, simulated work environments, and other hands-on or inquiry-based learning activities; and

**Response:**

Strong experience in, and understanding of, all aspects of an industry are incorporated into the State’s CTEMCS are integral to each LEA application for Perkins V Section 131 or 132 funds. In addition, each LEA application includes a signed statement of assurances that the programs identified for assistance with the funds will provide students with strong experience in and understanding of all aspects of the industry addressed by the program(s). The CDE and the CCCCO staff use annual statewide application funds for workshops to provide the LEAs with detailed information related to the “all aspects” requirement. This includes the importance of this instruction and strategies for its provision, the types of knowledge and skills that encompass each of the eight aspects and performance objectives for each, and a matrix that illustrates how the needed experience and understanding can be spread over the entire sequence of courses developed for the program. Program monitoring visits and scheduled program reviews are used by both state agencies to determine LEA compliance with the Perkins V Section 135 requirement.

Many regional efforts link education to workforce and economic development in very specific ways, through labor market research, direct support to school districts to create strong CTE pathways, development of curriculum in alignment with industry needs, implementation of work-based learning, internships, mentoring programs, and other targeted initiatives. All of these initiatives help to integrate all aspects of the industry into the curriculum of the sector of study.

The County Offices of Education provide or facilitate PD and technical assistance in the implementation of pathways within and across districts. County Offices of Education provide guidance on integration of curriculum, implementation of work-based learning, and improvement of student support services. They also provide guidance on selecting and distributing CTE pathways by industry within and across districts in the county. County Offices of Education also play an important role in countywide outreach to employers.

Work-based learning is a key strategy in the integration of academic and CTE and ensuring that programs provide students the opportunity to meet high industry standards. Work-based learning is offered at the secondary level through WEE, ROCPs, California Partnership Academies, other learning communities, and adult schools. Adult schools, ROCPs, and Partnership Academies require connection of work-based learning to technical or academic classroom curricula, while WEE programs generally focus on career exploration and work readiness. Secondary students may also access work-based learning through local community college co-operative WEE programs.

* + 1. improve outcomes and reduce performance gaps for CTE concentrators, including those who are members of special populations. (Section 122(d)(4)(C) of Perkins V)

**Response:**

One of the State’s Guiding Policy Principles is system alignment within the economic regions of the State in order to create a comprehensive and well-defined system of articulation of high-quality K−14+ pathways. Bringing greater coherence to programming, common use of terminology, appropriate data collection and sharing, and attainment of student outcomes in a timely way will lead to upward mobility in California’s industry sectors. System alignment allows for greater student portability and career advancement.

The State also promotes continuous improvement and capacity building at all levels and components to ensure smooth transitions in the system and focus efforts on implementation of state standards, attainment of student outcomes, and a strengthening of California’s regional economies.

Correspondingly, the State holds LEAs accountable for continuous improvement and to close gaps in achievement, particularly for students who may be members of special populations. The California School Dashboard, is based on multiple measures that assess how LEAs and schools are meeting the needs of their students. This online tool is designed to help districts and schools identify strengths and weaknesses and pinpoint student groups that may be struggling. It reports performance and progress on both **state and** local measures and includes both college and career measures.

California’s LCFF, enacted in 2013, fundamentally changed how all LEAs in the State are funded, how they are measured for results, and the services and supports they receive to allow all students to succeed to their greatest potential. California is committed to aligning state and federal education policies to the greatest extent possible to develop an integrated local, state, and federal accountability, and continuous improvement system grounded in the LCFF.

Under the LCFF, LEAs are held accountable for improving student performance. Specifically, LCFF sets eight priorities for school districts and charter schools (ten for county offices of education) that LEAs must address in LCAPs. Informed by performance data provided through the California School Dashboard, LCAPs describe each LEA’s overall vision for students, annual goals, and specific actions that will be taken to achieve the vision and goals.

1. Describe how the eligible agency, if it opts to do so, will include the opportunity for secondary school students to participate in dual or concurrent enrollment programs, early college high school, or competency-based education. (Section 122(d)(4)(D) of Perkins V)

**Response:**

As stated in the Guiding Policy Principles, the goal of the CWPJAC is to build connected, equitable, accessible, and high-quality K−14+ college and career pathways by: (1) signaling the infrastructure needs, (2) promoting regional and LEA efforts for alignment, and (3) reinforcing student supports during critical transitions leading into high school, community college, and beyond.

Pathway alignment requires the sequencing of courses across segments to enable students to proceed smoothly into postsecondary pathways after high school. More importantly, course articulations and dual enrollment opportunities offer benefits to students often conferring postsecondary course credits prior to high school graduation.

Recent state initiatives including the CCPT, the CTEIG, and the SWP demonstrate the commitment and intentionality of state investments to improve cross system collaboration and program alignment. Each of these efforts encourages and in fact, incentivizes K−14+ collaboration and articulation. Evidence of just one of these initiatives is demonstrated by a study conducted in 2016 by WestEd. Seventy-six percent of consortium directors (25 out of 33 directors reporting) reported that their consortia had established new dual enrollment or course-to-course articulation agreements through CCPT efforts. Twenty-four out of 33 CTE directors reported that a total of 236 new articulation agreements or dual-enrollment courses were created in year one of the CCPT.

Courses and programs may be designed to use cross-system strategies like dual enrollment and/or dual credit with community colleges and universities or other articulations to create a seamless student experience. This helps to avoid unnecessary repeating of courses or other inefficient practices to facilitate “on-time” postsecondary graduation, where appropriate. Stackable badging and credentials can ensure frequency of assessment and a value-added outcome.

The CDE’s new accountability and continuous improvement system provides information about how LEAs and schools are meeting the needs of California’s diverse student population. As part of this system, the College/Career Indicator (CCI) identifies multiple measures as indications of college or career readiness. The CDE continues to explore viable options to accurately measure CCI, however completing a CTE pathway and earning credit in a college course are currently two established measures. While accountability systems may not directly provide additional opportunities for students, these two measures were purposefully included to encourage LEAs to develop strong coordinated career pathways and credit transfer agreements which include more opportunities for students to participate in dual enrollment courses and earn college credits prior to transitioning from high school. The CCI measure shows how well LEAs and schools are preparing students for likely success after high school graduation.

The CCCCO Statewide Career Pathways Project improves the linkages of career technical pathways among high schools, ROCPs, and the community colleges. The project has developed a standardized articulation process across these educational institutions to provide the opportunity for secondary students to participate in dual or concurrent enrollment programs, early college high school, or competency-based education. The project also coordinates with grant-funded regional articulation projects to ensure that appropriate resources are available to all faculty tasked to develop articulation agreements.

California law (*EC* Section 76004) authorizes a governing board of a community college district to enter into a College and Career Access Pathways (CCAP) partnership with the governing board of a school district for the purpose of offering or expanding dual enrollment opportunities for pupils who may not already be college bound or who are underrepresented in higher education. The board will have the goal of developing seamless pathways from high school to community college for CTE or preparation for transfer, improving high school graduation rates, or helping high school pupils achieve college and career readiness. This law requires the partnership agreement to outline the terms of the partnership, as specified, and to establish protocols for information sharing, joint facilities use, and parental consent for high school pupils to enroll in community college courses.

Additionally, the law requires the community college and school district involved in the partnership to annually report demographic data to the CCCCO including:

* The total number of high school pupils by school site enrolled in each CCAP partnership, aggregated by gender and ethnicity, and reported in compliance with all applicable state and federal privacy laws.
* The total number of community college courses by course category and type and by school site enrolled in by CCAP partnership participants.
* The total number and percentage of successful course completions, by course category and type, and by school site, of CCAP partnership participants.
* The total number of full-time equivalent students generated by CCAP partnership community college district participants.

California *EC****,*** Section 48800 provides that the governing board of a school district may determine which students may benefit from advanced scholastic or vocational work. The governing board may authorize those students, upon recommendation from their principal and with parental consent, to attend a community college as a special part-time student and to enroll in one or more courses offered at the community college level. The purpose of the California *EC* is to provide educational enrichment for a limited number of eligible pupils. The educational enrichment opportunity will typically result in a request for concurrent enrollment in courses not currently offered by the approving school.

Students enrolled in Early College High Schools (ECHS) and Middle College High Schools (MCHS) can earn college credit through dual enrollment and concurrent enrollment strategies. ECHS are innovative partnerships between public or charter secondary schools and local community colleges that allow high school students to earn both their high school diplomas and Associate’s Degree with typically low cost to the student. MCHS are secondary schools located on a college campus offering challenging academic programs and designed to serve high-potential, high-risk students. MCHS offer effective support services, small class sizes, and the opportunity for students to concurrently take some college classes. All of these state initiatives encourage and provide various options for implementing dual enrollment. They are intended to promote system alignment while at the same time, specifically designed to broaden access for disadvantaged students. The State recognizes the local and regional differences school districts, community colleges, and local workforce development boards face when developing cross-agency agreements. These cross-system agreements have not been uniformly implemented statewide because they are often based on local or regional personalities. As a result, these agreements are frequently created through individual arrangements, based on local relationships and do not become institutionalized. The State is aware of the differences in access for students, variances in regional programs, and the varied levels of success with these agreements which have been individually driven.

Nonetheless, California has made efforts to systematize and institutionalize dual enrollment by providing funding to promote system alignment across secondary and postsecondary institutions. Across the State, high school and postsecondary leaders are connecting in communities of practice to map and align career pathways, develop POS, identify courses for articulation and dual enrollment, develop agreements, and build bridges to support students’ transitions. Examples of this support include data sharing, counseling, student supports and multiple placement measures. California will continue to consult with stakeholders to identify criteria and provide a forum for local and regional thought partners to share innovative ways to sustain articulation agreements across educational segments.

Information and implementation strategies on dual enrollment are disseminated to eligible recipients electronically, and through a variety of state-wide PD activities. Many opportunities are provided by the CDE, the CCCCO, and other organizations that host sessions on the development of articulation agreements, dual and concurrent enrollment, and the development of UC “A-G” approved CTE courses.

California recognizes the complexity of developing articulation agreements across different education levels, and will continue to consult with stakeholders on identifying and sharing best practices to include in the State’s framework for the State Plan. The State continues to endorse and encourage eligible recipients in developing opportunities for secondary school students to participate in dual or concurrent enrollment programs, ECHS or competency-based education.

As California moves forward in developing a new State Plan, the State will consider how regional and local entities may further realize the purposeful integration of the student experience across systems and into college and career while addressing industry needs. As noted in the Guiding Policy Principles, the State has the vision to create career pathways with multiple entry and exit points, bring about system cohesion, and establish a well-defined system of articulation of high-quality K−14+ career pathways. California has committed considerable resources, and looks forward to engaging with stakeholders to explore ways to further improve, expand, and sustain existing efforts to institutionalize and create sustainability in providing dual enrollment opportunities for all students.

1. Describe how the eligible agency will involve parents, academic and career and technical education teachers, administrators, faculty, career guidance and academic counselors, local business (including small businesses), labor organizations, and representatives of Indian Tribes and Tribal organizations, as appropriate, in the planning, development, implementation, and evaluation of its career and technical education programs. (Section 122(d)(12) of Perkins V)

**Response:**

In 2010 the SBE approved California CTEMCS that identify 15 industry sectors around which to organize CTE instruction, strategies for creating industry linkages including advisory committees for input on curriculum, and a recommended mechanism for the development of pathways aligned with postsecondary education and local labor market demands.

In the K–12, adult school, and community college systems, industry advisory committees help ensure that curricula address workplace demands. Educators then use the input to update curricula with the skills required for the workplace and align educational process as appropriate to respond to industry needs. Individual educators’ ability to do this varies widely, depending on the level of change and innovation allowed and encouraged on their campuses.

Each school district participating in CTE, in accordance with Section 8070 of the California *EC*, must maintain a CTE advisory committee to develop recommendations for the program and provide a liaison between the district and potential employers. The California *EC* Section also identifies the required composition of the committee. Each local plan for the secondary and postsecondary Perkins V funded agencies must include a description of how these individuals and groups will be involved in the CTE planning, implementation, and evaluation processes.

1. Include a copy of the local application template that the eligible agency will require eligible recipients to submit pursuant to Section 134(b) of Perkins V. See Text Box 4 for the statutory requirements for local applications under section 134(b) of Perkins V.

**Response:**

See Appendix C.

1. Include a copy of the comprehensive local needs assessment template and/or guidelines that the eligible agency will require of eligible recipients to meet the requirements of Section 134(c) of Perkins V. See Text Box 3 for the requirements for the comprehensive local needs assessment under Section 134(c) of Perkins V.

**Response:**

See Appendix D.

1. Provide the eligible agency’s definition for “size, scope, and quality” that will be used to make funds available to eligible recipients pursuant to Section 135(b) of Perkins V.

**Response:**

As previously stated, California provides eligible recipients with a vast amount of resources including career pathway templates and examples, robust academic content standards and CTEMCS, countless opportunities for PD and technical assistance, a number of websites, and other tools to help in the design and implementation of high-quality career pathways in the State.

The size of CTE programs is as varied as the size of eligible recipients located throughout California, and in proportion to the size of the total student enrollment served by their local agency or institution. Size of local CTE programs is also determined by local and regional employment data, the needs of the local and regional economies, in consultation with business and workforce partners, and available resources. In a state like California, it is important to consider the relative nature of scaling CTE programs to match local and regional workforce and economic needs whether they are in rural or metropolitan areas of the State.

As a condition of receiving funds, unified and union high school districts must be actively involved in the delivery of CTE programs, meaning that the districts must provide at least one POS that includes at least one district-funded course. Additionally, the districts must provide at least one course in each industry sector assisted with the funds. The course may be introductory or advanced, and must be clearly integral to one or more of the sequences of courses offered in the industry sector.

The CWPJAC’s Guiding Policy Principles help to define state expectations for the scope and quality of career pathway programs in California. Taking a student-centered focus, promoting equity and access, achieving system alignment, and supporting continuous improvement all impact the scope and quality of California’s CTE programs.

The scope and quality of CTE programs is defined by California’s focus on continuous improvement and achievement on the performance targets established in the State’s accountability measures and the Perkins V core indicators. Additionally, each CTE program assisted with Perkins V Section 131 or 132 funds must incorporate the six requirements established in Section 135(b) of Perkins V. These requirements include a sequence of courses that provides students with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills, and the following program requirements determined by the State to be critical to high-quality CTE programs:

* Be staffed by qualified CTE teachers, meaning teachers who:
  + possess a standard secondary, single-subject or designated-subject credential, which authorizes the teaching of the CTE course(s) to which assigned, and
  + can document employment experience, outside of education, in the career pathway addressed by the program or other evidence of equivalent proficiency. The minimum qualifications for community college CTE teachers are established in Title 5 of the California Code of Regulations.
* Focus on current or emerging high skill, high wage, or high demand occupations.
* Be aligned with the State’s CTEMCS and framework.
* Have extensive business and industry involvement, as evidenced by not less than one annual business and industry advisory committee meeting and planned business and industry involvement in program activities as described in the instructions for the annual application for funds.
* Require the governing board of each school district participating in a CTE program to appoint a CTE advisory committee to develop recommendations on the program and to provide liaison between the district and potential employers.
* Provide for certification of students who achieve industry-recognized skill and knowledge requirements.
* Be aligned with applicable feeder and advanced-level instruction in the same career pathway.
* Integrate the development of CTE and academic skills in order to prepare students for immediate employment upon graduation and for further education or training.
* Provide practical applications and experiences through actual or simulated work-based learning assignments.
* Provide for equitable access and needed support services of all students, including special populations and those preparing for nontraditional occupations.
* Include planned career awareness and exploration experiences.
* Provide for the development of student leadership skills through an established CTSO or an alternate strategy that incorporates this instruction in all of the courses that make up the sequence.
* Use annual evaluation results, including achieved core indicator performance levels, to determine needed program improvements, modifications, and PD activities for staff.
* Have a systematic plan for promoting the program to all concerned groups, including, but not limited to, students, parents, counselors, site and district administrators, and postsecondary educational agencies.

The quality of CTE programs in California is further enhanced by the CWPJAC’s essential elements of a high-quality college and career pathways listed in response to 2(B)(a).

In addition, key themes are infused throughout the elements:

* Building a demand-driven CTE system by responding to real workforce development needs and state, regional, and local labor market realities and priorities.
* Ensuring access for all students to CTE courses, pathways, and programs of interest.
* Realizing the concept of lifelong learning, spanning from early childhood through adulthood’s many transitions.
* Promoting CTE as a means to engage students, instill a passion for learning, and improve student outcomes.
* Viewing CTE systemically in planning for how CTE can contribute to California’s economic future, rather than focusing on discrete secondary or postsecondary programs or specific funding streams.
* Promoting the continuous improvement of CTE services and impact through the alignment of standards, curricula, assessments, and PD.

Evaluation of CTE program effectiveness occurs at every level of the State’s education system, including classrooms, programs, schools, and colleges.

To assist local recipients in the implementation and evaluation of high-quality CTE pathways, the State developed and has made available, a CTE Program Self-Review Tool. This instrument allows eligible recipients to self-assess their CTE programs compared to the State’s high-quality indicators. The tool includes quality criteria recognized in each indicator, as well as a list of possible evidence to help a make determination of high-quality.

The application for funds process administered by the CDE and the CCCCO requires that local and state attention be given to the six requirements of local programs assisted with the funds, which includes developing and implementing evaluation of the CTE programs carried out with Perkins V funds. The application for funds is also used in conjunction with the annual core indicator accountability data reported by eligible recipients to identify CTE programs that need improvement and to prescribe needed improvements. Monitoring processes established by both state agencies help to ensure the cogency of the local application, and the validity of annual core indicator accountability data.

Program monitoring visits and scheduled program reviews are used by both state agencies to determine eligible recipients’ compliance with all Perkins V Section 135 requirements, including offering programs of sufficient size, scope, and quality to be effective.

3. Meeting the Needs of Special Populations

1. Describe the eligible agency’s program strategies for special populations, including a description of how individuals who are members of special populations—

* will be provided with equal access to activities assisted under this Act;

**Response:**

California affirms its strong commitment to promote equity and access to CTE programs by eliminating institutional barriers and achievement gaps for all students to realize their educational and career aspirations, particularly for members of special populations. The State expects all LEAs and institutions to design educational environments that maximize equity and access for all student populations. This commitment is explicitly emphasized in the Guiding Policy Principles and enumerated in the elements defining high-quality CTE programs, established by the CWPJAC.

California is committed to supporting the special student populations as defined in Perkins V, including:

* Individuals with disabilities
* Individuals from economically disadvantaged families
* Individuals preparing for nontraditional fields
* Single parents, including single pregnant women
* Out-of-workforce individuals
* English Learners
* Homeless individuals
* Foster Youth
* Youth with a parent who is a member of the armed forces

State Special Schools provide CTE programs to secondary and adult students, including providing opportunities for work-based learning, at the California Schools for the Deaf in Fremont and Riverside, and the California School for the Blind in Fremont. Each year, these schools receive a portion of the State’s Perkins V allocation to help improve their CTE programs.

California is dedicated to the belief that all students can learn and that students with disabilities and English Learners must be guaranteed equal opportunity to access career pathways programs to realize their greatest potential. Through statewide employment first policies combined with efforts to ensure competitive integrated employment, California is ensuring high-quality educational programs and services for students with disabilities are mapped to employment. In addition, through partnerships with other state agencies including the Department of Rehabilitation and the Department of Developmental Services, eligible recipients are better able to plan, implement, and evaluate services to increase opportunities for students to enter into competitive integrated employment.

Existing local supports include a variety of services (e.g., assessment, counseling, matriculation services, English Language Development, basic skills instruction, adult noncredit instruction, learning laboratories, tutorials, assistance with study skills, and recruitment and outreach to special population students). The strong presence of career exploration and student supports is an essential component for establishing a learning plan for all K–14+ students, especially to meet the needs of special populations. This includes identifying appropriate foundational courses (i.e., using competency-based learning) and information about jobs, determining student progression in a single pathway or along multiple pathways or sequences of learning, or making available in-class and online course offerings and work-based learning opportunities. To complement their learning plan, all students, including those with special needs, should also have access to comprehensive counseling, individualized supports along their journey (including, but not limited to, students who are part-time, face barriers to learning, need academic or cultural supports, transportation, child care, or financial aid), or opportunities through student leadership development organizations to achieve their individual goals and aspirations.

Student leadership activities, including those provide through, CTSOs provide all students, including special populations, additional support regarding specific industry sectors, self-advocacy, and acquiring leadership skills. Other activities include developing and/or disseminating training materials for administrators, faculty, counselors, and student support staff to assist students who are members of special populations gain access to and succeed in quality CTE programs. Supports include work-based learning opportunities; workability programs; providing adaptive equipment and services; increasing the flexibility of program schedules to accommodate working students and students with young children.

California looks forward to engaging with stakeholders to identify ways to use Perkins V funding to supplement existing efforts, and maximize how students who are members of special populations are afforded equal access to career pathway programs.

California takes its regulatory responsibility seriously and will continue to monitor eligible recipients for compliance with state and federal civil rights requirements.

* will not be discriminated against on the basis of status as a member of a special population;

**Response:**

Existing state policies require eligible recipients to comply with state and federal laws and regulations prohibiting discrimination based on race, color, national origin, sex, sexuality, and disability. The 2019–20 application will require applicants to demonstrate how discrimination of any kind is not tolerated. Eligible recipients must provide non-discrimination notifications to students, parents, school employees, and the general public.

California provides continuous oversight and technical assistance to schools and colleges with respect to preserving nondiscrimination of students who are members of special populations. All California community colleges and selected secondary school districts receive annual statistical reviews or audits of programs and enrollments to assure equal access and the upholding of policies related to race, sex, disability, limited English proficiency, salary, hiring practices, harassment, and technology.

Biennial site visit schedules and targeting plans will continue to be developed and submitted to the OCR for approval, and both agencies will continue to submit CTE-Civil Rights reports as required by the OCR.

As California continues to gather information from stakeholders, the State will proactively seek advice on how to improve regional and local practices and processes to uphold all state anti-discrimination policies through intentional training, improved awareness, and targeted technical assistance to all Perkins V recipients (such as administrators, faculty/teachers, counselors, and others).

* will be provided with programs designed to enable individuals who are members of special populations to meet or exceed State determined levels of performance described in section 113, and prepare special populations for further learning and for high-skill, high-wage, or in-demand industry sectors or occupations;

**Response:**

Since 1977, all California school districts and County Offices of Education have been mandated to form consortia in geographical regions of sufficient size and scope to provide for all special education service needs of children residing within the region’s boundaries. Each region, Special Education Local Plan Area (SELPA), develops a local plan describing how it would provide special education services.

SELPAs are dedicated to the belief that all students can learn and that special needs students must be guaranteed equal opportunity to become contributing members of society. SELPAs facilitate high-quality educational programs and services for special needs students and training for parents and educators. The SELPA collaborates with county agencies and school districts to develop and maintain healthy and enriching environments in which special needs students and families can live and succeed.

The goal of each SELPA is to support and assist member districts with their special education programs and services, enabling them to operate in the most efficient and cost-effective manner possible. Each SELPA is responsible for ensuring that every eligible child receives appropriate services to help them be successful. In addition to administrative support, the SELPA helps its members comply with legal requirements concerning students with disabilities, and provides PD activities to foster better relationships between schools and the families of special needs students.

The **Disabled Student Programs and Services** (DSPS) provided through California Community Colleges is all about equity and making sure any student can reach his or her full potential. DSPS assists students with disabilities so they have equal access to all programs and activities on campus.

DSPS provides support services to students with physical disabilities, learning disabilities, psychological disabilities, developmental delay, brain injury, visual impairments, health problems, and hearing impairments. Among the array of services offered are priority registration, specialized counseling, class scheduling, mobility assistance, test proctoring, specialized tutoring, transcription services, interpreter services for hearing impaired or deaf students, and more.

* will be provided with appropriate accommodations; and

**Response:**

As stated in Perkins V (3)(a)(i), California provides an abundance of support services for all special student populations in the State. Eligible recipients are expected to design educational environments that are attuned to the needs of special student populations. This includes making appropriate and necessary accommodations for students, as well as developing and/or disseminating training and informational materials for administrators, faculty, counselors, and student support staff to assist students who are members of special populations succeed in high-quality CTE programs; providing adaptive equipment and services; and increasing the flexibility of program schedules to accommodate working students and students with young children.

As required by Perkins V, eligible recipients must disaggregate and report data for each of the core indicators of performance, and for each special population group. The availability of this information on the special population groups is available to eligible recipients and enables them to objectively develop and provide accommodations for their special student populations to ensure they are delivered the necessary and appropriate support services needed for successful completion of the programs.

California will continue to use its Perkins V Section 112 (a)(2)(B) funds to support the JSPAC which provides the following related activities and services:

* A statewide leadership training conference and regional workshops providing specific information for supporting special populations.
  + - * Information and policy recommendations to facilitate statewide planning.
      * Training and strategies to educators to assist special population students in meeting or exceeding state-adjusted levels of performance.
      * Linkages and partnerships to support special population students, including the identification of community-based organizations, social service agencies, and workforce development agencies.
      * Collaboration with other programs and service providers to address the specific needs of all special population students.

Through state-funded programs students are provided with opportunities for advanced learning in a variety of subjects and technologies. Additional support for students to gain knowledge regarding specific industry sectors and to acquire leadership skills is provided through CTSOs, and other student leadership activities.

California will continue to consult with stakeholders to determine how best to continue developing and using existing program organization and instructional strategies to motivate and engage all students, including those who are members of special populations, in order to enable them to meet high school graduation requirements, prepare for entry into nontraditional, high skill, high wage, and in-demand career fields, and to prepare for further education or training. California will also explore ways to provide coherence among different entities providing similar services to avoid duplication of efforts and maximize the best use of public resources for providing appropriate accommodations to students.

* will be provided instruction and work-based learning opportunities in integrated settings that support competitive, integrated employment. (Section 122(d)(9) of Perkins V)

**Response:**

Business and industry, including labor and trade organizations and apprenticeship programs, work with the education community through advisory committees, forums, and other educational and training partnerships to inform CTE program design, instruction, and assessment. These partnerships ensure CTE’s relevance to the workplace and facilitate the placement of students and teachers in work experience, work-based learning, job shadowing and internships; skills identification and certification; consultation on career pathways and program design; career exploration in all grades and levels; information sharing on labor market demands and economic trends; and teacher recruitment and PD.

4. Preparing Teachers and Faculty

1. Describe how the eligible agency will support the recruitment and preparation of teachers, including special education teachers, faculty, school principals, administrators, specialized instructional support personnel, and paraprofessionals to provide career and technical education instruction, leadership, and support, including PD that provides the knowledge and skills needed to work with and improve instruction for special populations. (Section 122(d)(6) of Perkins V)

**Response:**

California is undertaking or exploring a variety of activities to facilitate recruitment of skilled CTE teachers, faculty, administrators, and other professionals to strengthen CTE programs.

Teacher and faculty recruitment in CTE is particularly challenging because teachers need both industry knowledge and pedagogical skills. They must possess integrated technical, workplace, and academic knowledge and skills. They must also know how to convey this knowledge and facilitate skill development using multiple instructional and assessment strategies.

Currently, the major segments of CTE have varying requirements for instructor qualification. Teachers in the K–12 system generally hold single or multiple-subject credentials, which require a Bachelor’s Degree, and may also require evidence of occupational experience in the career area authorized by the credential.

Many CTE teachers employed by ROCPs and adult schools also hold single or multiple-subject credentials. However, because of the emphasis these agencies place on occupational preparation, a much higher percent of their teachers hold specific CTE industry sector credentials. These CTE credentials do not require a Bachelor’s Degree; they require a high school diploma, a combination of subject-related occupational experience and education pedagogy coursework. Their familiarity with industry trends, technology, and practice helps ensure that the content of CTE courses is relevant and that the skills students learn are those needed by employers.

Community college CTE instructors must meet minimum qualifications that are based on a combination of degrees and industry experience. CTE instructors must have a Master’s, Bachelor’s, or Associate’s Degree. In order to teach with a Bachelor’s Degree, individuals must have two years of experience in their career area; with an Associate’s Degree, they must have six years of experience.

Counselor training programs focus predominantly on academic counseling, rather than on career counseling. Additionally, many counselors lack direct experience in occupations outside of the education sector.

Challenges to recruiting and retaining staff include low pay compared to the private sector; an inadequate supply of individuals who have the breadth of skills required; inadequate supply of credentialing programs, exacerbated by the currently cumbersome and extensive credentialing process that deters otherwise skilled professionals from becoming teachers; difficulties in retaining faculty for part-time positions; challenges in recruiting staff for positions in rural areas; and pressures on staff due to a continual need to re-train to keep pace with trends in industry.

Generally, PD in CTE is offered through professional and industry conferences, workshops, and meetings. Teacher externship and job shadowing opportunities are highly valued by those who have experienced the benefits they provide, but there is a much higher demand for these opportunities than there are opportunities available. Many teachers value time to learn from other teachers and collaborate with their colleagues in other disciplines to develop integrated curricula and strengthen their programs.

At the K–12 level, the CDE staff have provided both PD and targeted technical assistance to CTE practitioners in the field. A variety of PD activities are offered in specific industry sectors and focus on current and effective practices.

CTE focused PD can be valuable for non-CTE faculty, counselors, administrators, and other staff as well. While K–12 non-CTE teachers may have single-subject or multiple-subject credentials, they often lack extensive experience in the workplace outside of education. Preparation programs do not emphasize knowledge of workplace needs, career development issues, or CTE-academic integration, as described above. Greater exposure to the needs of the workplace could also enhance administrators’ ability to provide vision and leadership in CTE.

At the community college level, PD is offered through the Community College Advisory Committees and collaboratives, Academic Senate, Regional Consortia, content area conferences, and sabbaticals. Colleges also pay for “flexible PD,” called “flex,” whereby faculty participate in at least five days of PD activities each year to strengthen their programs. In addition, the CCCCO also offers PD on special topics, such as integrating curricula, effective practice in developmental education, and assessing student learning. Initiatives reflecting system priorities are usually addressed through PD offered in approximately 16 two or three day workshops during the year. The CCCCO has covered faculty stipends and substitutes so that colleges can then use Perkins V funds to train large groups of faculty on their campuses.

Finally, both state and federal funds have been used to provide faculty PD through teacher externships, a strategy demonstrated to be highly effective in informing educators about the needs of the workplace.

#### C. Fiscal Responsibility

* + - * 1. Describe the criteria and process for how the eligible agency will approve eligible recipients for funds under this Act, including how—
  1. each eligible recipient will promote academic achievement;

**Response:**

As stated in the response to B(2)(h), each eligible recipient must integrate the six requirements established in Section 135(b) of Perkins V, as well as state criteria determined to be critical for the delivery of high-quality CTE programs. California will continue with existing efforts to integrate rigorous academics with robust technical knowledge and skills in all career pathways. With the vision of high-quality career pathways established by the CWPJAC and reinforced by the essential elements, California will continue to conduct extensive consultation with stakeholders to further refine California’s delivery of career pathway programs that promote academic achievement.

* 1. each eligible recipient will promote skill attainment, including skill attainment that leads to a recognized postsecondary credential; and

**Response:**

California requires all eligible recipients to promote skill attainment through end-of-course assessments, and/or the awarding of certificates of achievement, when available and where appropriate. The CTEMCS recognize 15 Industry Sectors and 58 Pathways, and are designed to integrate all the essential elements necessary for entry into defined pathways. They integrate CTE knowledge and skills attainment with general education academics, and include opportunities for students to participate in a continuum of work-based learning experiences, as well as earn early college credits and advanced standing in community college CTE programs.

* 1. each eligible recipient will ensure the local needs assessment under section 134 takes into consideration local economic and education needs, including, where appropriate, in-demand industry sectors and occupations. (Section 122(d)(5) of Perkins V)

**Response:**

As stated previously in this State Plan, California has recently implemented several state initiatives to encourage LEAs and community colleges to increase the use of data as a basis for aligning their CTE programs with regional economies and education needs. The State has made significant progress with developing education and industry partnerships to ensure a match between the skills needed in local and regional markets, and those possessed by students who complete CTE programs.

In collaboration with the California Workforce Development Board, current and emerging occupational opportunities are identified through the analysis of statewide and regional data provided by the U.S. Department of Labor/Bureau of Labor Statistics (BLS) and the California EDD/LMID. This information is made available to local agencies and institutions through the Strong Workforce Program and other websites. Eligible recipients will be expected to access regional labor market projections, workforce development in area targeted occupations, and real time labor data to drive the alignment of the regional and local needs assessment with labor market information.

Both the CDE and the CCCCO have revised their application processes to reflect the new local application for funding requirements, including a comprehensive needs assessment that will inform the development of the local application for funding. California provided informational workshops during the fall of 2019, to update local eligible recipients on the required comprehensive local needs assessment, consultation requirements, review the timeline to completion, provide guidance, and to answer any questions recipients may have. In the spring of 2020, California conducted application workshops to train eligible recipients on the revised local application for funding, including the required needs assessment, and ensure local recipients are meeting the consultation requirements.

Eligible recipients are required to annually submit a local application for funding for Perkins V Section 131 or 132 funds. Applications are reviewed by staff at the CDE and the CCCCO to ensure local applicants meet all the required elements of Perkins V.

* + - * 1. Describe how funds received by the eligible agency through the allotment made under section 111 of the Act will be distributed—
  1. among career and technical education at the secondary level, or career and technical education at the postsecondary and adult level, or both, including how such distribution will most effectively provide students with the skills needed to succeed in the workplace; and

**Response:**

California currently divides Part C funds between secondary and postsecondary programs based on a comparison of the CTE course enrollments at the two levels, in the last completed program year for which enrollment data is available. This annual enrollment comparison process involves the collection and validation of the enrollments in secondary CTE courses conducted by the unified and union high school districts; the enrollments in postsecondary CTE courses conducted by the community college districts; and adult school agencies. Joint Powers Authority ROCPs under local control funding report their enrollment through their participating districts. Based on a comparison of the aggregated 2018–19 secondary and postsecondary CTE enrollment data, 46.83 percent ($47,841,495) of the 2018–19 Title I, Part C funds were directed to secondary programs and 53.17 percent ($54,325,178) of the funds were directed to postsecondary programs. From the total Title I, Part C funds directed to postsecondary programs, the CCCCO received 88.88 percent ($48,281,546) and the CDE received 11.12 percent ($6,043,632) to operate adult education CTE programs.

The SBE, in consultation with the BOG will determine if any adjustments to the current allocation formula need to be made and if the current method is still appropriate for promoting achievement for all K–14+ students enrolled in CTE programs.

* 1. among any consortia that may be formed among secondary schools and eligible institutions, and how funds will be distributed among the members of the consortia, including the rationale for such distribution and how it will most effectively provide students with the skills needed to succeed in the workplace. (Section 122(d)(8) of Perkins V)

**Response:**

The minimum grant award for Perkins V Section 131 funds is $15,000. The minimum grant award for the Section 132 funds is $50,000. As authorized by Perkins V Section 131(c)(2), in order to meet the minimum grant award requirement, an LEA may enter into a consortium with other LEAs, or may apply for a waiver of the consortium requirement if:

located in a rural, sparsely populated area, or is a public charter school operating secondary CTE programs; and

can demonstrate its inability to enter into a consortium.

As authorized by Perkins V Section 132(a)(3)(A)(i), in order to meet the minimum grant requirement for Section 132 funds, a postsecondary recipient may join in a consortium with other postsecondary partner(s) to meet or exceed the minimum grant award of $50,000. Each formed consortium must submit a memorandum of understanding which identifies its member agencies, the fiscal agent, and agreed-upon guidelines for developing and determining the CTE program(s) to be assisted with the funds. They must also prepare an annual application, required fiscal claims, and annual accountability report.

The funds calculated for each consortium member agency will be totaled to calculate the total funds allocated to each consortium. Consortia must meet the minimum grant award limits prescribed in Perkins V in order to receive funding and submit the required annual application.

1. For the upcoming program year, provide the specific dollar allocations made available by the eligible agency for career and technical education programs and programs of study under section 131(a)-(e) of the Act and describe how these allocations are distributed to local educational agencies (LEAs), areas career and technical education schools and educational service agencies within the State. (Section 131(g) of Perkins V)

**Response:**

Perkins V Section 131 funds will be distributed among the State LEAs operating secondary CTE programs (unified and union high school districts, charter schools, and court and community schools administered by county offices of education) in accordance with the formula established in Perkins V: 30 percent based on the LEA’s proportional share of the State’s total K–12 population, and 70 percent based on the LEA’s proportional share of the State’s total K–12 population, with family incomes below the poverty level established by the Office of Management and Budget. Statistically updated census data will be used in the determination of the allocations. A list of the 2019–20 Perkins V Section 131 eligible recipients, and allocations is available at the CDE web page at: <https://www.cde.ca.gov/ci/ct/pk>. The 2020–21 Perkins V Section 131 allocations will be posted on the website when available.

1. For the upcoming program year, provide the specific dollar allocations made available by the eligible agency for career and technical education programs and programs of study under section 132(a) of the Act and describe how these allocations are distributed to eligible institutions and consortia of eligible institutions within the State.

**Response:**

The State will use an alternative formula for Section 132 funds distribution formula as defined in the waiver approved for the Perkins IV funds. The alternative formula significantly increases the number of economically disadvantaged students and CTE programs the State is able to assist with the funds.

Specifically, the determination of Perkins V Section 132 allocations involves 1) calculating the per-student allocation amount by dividing the total amount of Section 132 funds available for distribution by the sum of the economically disadvantaged adults reported by the eligible recipients (adult schools, ROCPs, and community college districts); and 2) calculating each eligible recipient’s allocation by multiplying the determined per-student allocation amount by the number of economically disadvantaged adult CTE students reported by the recipient. A list of the 2019–20 Section 132 eligible recipients and allocations for ROCPs, and adult schools is available at the CDE web page at: <https://www.cde.ca.gov/ci/ct/pk>.

A list of the 2019–20 Perkins V Section 132 eligible recipients and allocations for California community colleges is available at the CCCCO web page at: <https://extranet.cccco.edu/Portals/1/WED/Perkins/District_Preliminary_Allocations_Memo_2019-20.pdf>.

The 2020–21 Perkins V Section 132 allocations will be posted on the website when available.

1. Describehow the eligible agency will adjust the data used to make the allocations to reflect any changes in school district boundaries that may have occurred since the population and/or enrollment data was collected, and include local education agencies without geographical boundaries, such as charter schools and secondary schools funded by the Bureau of Indian Education. (Section 131(a)(3) of Perkins V)

**Response:**

Annual Perkins V Section 131 allocations reflect changes in school district boundaries, unifications, district reorganizations, charter schools, and secondary schools funded by the Bureau of Indian Affairs based on updated enrollment information collected and reported by the CDE Financial Accountability and Information Office.

1. If the eligible agency will submit an application for a waiver to the secondary allocation formula described in section 131(a)—
2. include a proposal for such an alternative formula; and
3. describe how the waiver demonstrates that a proposed alternative formula more effectively targets funds on the basis of poverty (as defined by the Office of Management and Budget and revised annually in accordance with section 673(2) of the Community Services Block Grant Act (42 U.S.C. 9902(2)) to local educational agencies with the State. (Section 131(b) of Perkins V)

Also indicate if this is a waiver request for which you received approval under the prior Perkins IV.

**Response:**

California will not be submitting an application for a waiver to the secondary allocation formula for distribution of Section 131 funds as described in section 131(a) of Perkins V.

1. If the eligible agency will submit an application for a waiver to the postsecondary allocation formula described in section 132(a)—
   * 1. include a proposal for such an alternative formula; and
     2. describe how the formula does not result in a distribution of funds to the eligible institutions or consortia with the State that have the highest numbers of economically disadvantaged individuals and that an alternative formula will result in such a distribution. (Section 132(b) of Perkins V)

Also indicate if this is a waiver request for which you received approval under the prior Perkins IV.

**Response:**

The State will request a renewal of the Perkins IV Section 132 funds distribution formula waiver approved for the Perkins V funds. The alternative formula enables the State to more equitably recognize and serve economically disadvantaged adult CTE participants in courses conducted by adult schools and ROCPs, as well as those enrolled in the community colleges. In so doing, it complies with the “more equitable distribution of funds” waiver requirement established in Section 132(b)(1) of Perkins V.

The alternative formula generates an unduplicated count of adults (unduplicated by period of enrollment, unduplicated by enrollment in more than one CTE course/program, and unduplicated by eligibility in more than one economically disadvantaged category) who are economically disadvantaged; in attendance at an adult school, ROCPs, or community college; and enrolled in a CTE course/program. The economically disadvantaged status of the adult CTE students is determined by their participation in one of the following public assistance programs or one of the evidences of a personal or family income below the poverty level:

* Promise Grant;
* Pell Grant;
* CalWORKs;
* WIOA;
* Supplementary Security Income;
* General/Public Assistance;
* Bureau of Indian Affairs;
* Eligibility for economic public assistance or student aid;
* Annual income level below poverty level as determined by county of residence; or self-declaration by adult.

The determination of the Perkins V Section 132 allocations involves the following steps: (1) calculating the per student allocation amount by dividing the total amount of Section 132 funds available for distribution by the sum of the economically disadvantaged adults reported by the eligible recipients (adult schools, ROCPs, and community college districts); and (2) calculating each eligible recipient’s allocation by multiplying the determined per student allocation amount by the number of economically disadvantaged adult CTE students reported by the recipient.

The 2020–21 Perkins V Section 132 allocations will be based on an unduplicated count of the economically disadvantaged adults enrolled in CTE programs during the 2018–19 program year which began on July 1, 2018, and ended on June 30, 2019. Similar data collection periods will be used for subsequent program year allocations. Third-party verified data is preferred, but an eligible recipient may report those adults who have been identified by self-declaration, as meeting at least one of the listed evidences of economic disadvantage. Reported enrollments will be validated by comparing this data with related data submitted by the eligible recipients for the same time period. Eligible recipients are required to maintain auditable records of student eligibility for five years.

Section 132 allocations are determined through the following process:

* + The CDE collects and validates the eligibility reports and data submitted by the adult school agencies and ROCPs. The CCCCO collects and validates the eligibility data submitted by the community college districts;
  + The CDE determines the total number of economically disadvantaged adult CTE students by aggregating the validated economically disadvantaged enrollments reported by the adult school agencies, ROCPs, and community college districts;
  + The CDE computes a per-student allocation amount by dividing the funding available for distribution under Section 132 by the total number of economically disadvantaged adult CTE students determined in number 2;
  + The CDE determines each eligible recipient’s (adult school agency, ROCP, and community college district) allocation by multiplying its validated number of economically disadvantaged adult enrollees by the per-student allocation amount computed in item number 3;
  + The CDE transfers to the CCCCO, by interagency agreement, the total amount of the Section 132 funds to be awarded to community college districts; and
  + Both agencies, the CDE and the CCCCO, distribute the funds for which they are responsible in accordance with the Section 132 guidelines.

This is the same distribution formula the State has been granted under Perkins IV. The CWPJAC, the CDE, and the CCCCO, through consultation with the stakeholders identified in Section 122(c)(1)(A) of Perkins V, will use the 2019–20 program year to determine if the existing process for the distribution of Section 132 still provides the most equitable distribution of funds to maximize the number of economically disadvantaged individuals served.

1. If the eligible agency will award reserve funds to eligible recipients under section 112(c) of Perkins V, describe the process and criteria for awarding those funds.

**Response:**

The CDE will not exercise the reserve funds option in the 2019–20 program year.

The CCCCO will continue to utilize the reserve funds option as it has in the last few years of Perkins IV. From the amounts made available under subsection 132, the CCCCO will allocate not more than 15 percent of Title IC Section 132 to all community colleges for CTE activities with specific focus. Specifically, recipients will be required to use funds on one or more activities in rural areas, areas with high percentages of CTE concentrators, or areas with disparities or gaps in performance as described in Perkins V Section 113(b)(3)(C)(ii)(II), in order to foster innovation through the identification and promotion of promising and proven CTE programs. Reserve funds will also be used to promote programs implementing best practices and strategies that prepare individuals for nontraditional fields; or for the development, implementation, and adoption of programs of study or career pathways aligned with state identified high-skill, high-wage, or in-demand occupations or industries based on cluster, sector, or regional LMI data. The reserve fund will be awarded by an equal amount to all 115 community colleges to provide services to CTE students that meet the above-mentioned criteria. For program year 2018–19, each community college received $41,377 to carry out specific activities.

1. Provide the State’s fiscal effort per student, or aggregate expenditures for the State, that will establish the baseline for the Secretary’s annual determination on whether the State has maintained its fiscal effort, and indicate whether the baseline is a continuing level or new level. If the baseline is new, please provide the fiscal effort per student, or aggregate expenditures for the State, for the preceding fiscal year. (Section 211(b)(1)(D) of Perkins V)

**Response:**

The total investment in state dollars for CTE programs in California used to calculate the state-level maintenance of effort for receipt of the federal Perkins V funds is shown below. This calculation is made annually, in the month of February, by the CDE Fiscal Services Division and the CCCCO Finance and Facilities Planning Division. The aggregated expenditures and per CTE student expenditures are shown in the tables on the next page:

**AGGREGATE EXPENDITURES:**

| **Funding Source** | **Fiscal Year 2015–16** | **Fiscal Year 2016–17** |
| --- | --- | --- |
| Non-Federal Expenditures from 2016–17 Match Report | $6,314,833 | $6,215,059 |
| CCCCO – Non-Federal Expenditures | $66,790,821 | $433,284,686 |
| CDE - Non-Federal Expenditures | $529,167,353 | $648,069,915 |
| Total | $602,273,007 | $1,087,569,660 |

**Change from Fiscal Year 2015–16 to Fiscal Year 2016-17 is $485,296,653.00.**

**FISCAL EFFORT PER CTE STUDENT:**

| **Student Counts** | **Fiscal Year 2015–16** | **Fiscal Year 2016–17** |
| --- | --- | --- |
| CCCCO - Postsecondary | $1,170,346 | $1,157,480 |
| CDE - Secondary | $576,708 | Not Yet Calculated |
| CDE - Secondary ROCPs | $80,260 | $24,691 |
| CDE - Adult | $51,232 | $45,660 |
| CDE - Adult ROCPs | $24,052 | $25,996 |
| Total | $1,902,598 | $1,253,827 |
| Per Student Expenditure | $316.55 | $867.40 |

**Change from Fiscal Year 2015–16 to Fiscal Year 2016–17 is $545.89**

NOTE: Update dollar amounts in tables.

#### D. Accountability for Results

1. Identify and include at least one (1) of the following indicators of career and technical education program quality—
   * 1. the percentage of CTE concentrators (See Text Box for the statutory definition of a CTE concentrator under section 3(12) of Perkins V) graduating from high school having attained a recognized postsecondary credential;
     2. the percentage of CTE concentrators graduating high school having attained postsecondary credits in relevant career and technical education programs and programs of study earned through a dual or concurrent enrollment program or another credit transfer agreement; and/or
     3. the percentage of CTE concentrators graduating from high school having participated in work-based learning. (Section 113(b)(2)(A)(iv)(I) of Perkins V)

Include any other measure(s) of student success in career and technical education that are statewide, valid, and reliable, and comparable across the State. (Section 113(b)(2)(A)(iv)(II) of Perkins V). Please note that inclusion of “other” program quality measure(s) are optional for States.

Provide the eligible agency’s measurement definition with a numerator and denominator for each of the quality indicator(s) the eligible agency selects to use.

**Response:**

**NOTE: NEED TO COMPLETE**

1. Provide on the form in Section V.B, for each year covered by the State Plan beginning in FY 2020, State determined performance levels or each of the secondary and postsecondary core indicators, with the levels of performance being the same for all CTE concentrators in the State. (Section 113(b)(3)(A)(i)(I) of Perkins V)

**Response:**

See pages 93 and 94.

1. Describe the procedure the eligible agency adopted for determining State determined levels of performance described in section 113 of Perkins V, which at a minimum shall include—
2. a description of the process for public comment under section 113(b)(3)(B) of Perkins V as part of the development of the State determined levels of performance. (See Text Box 5 for the statutory requirements for consultation on State determined performance levels under section 113(b)(3)(B) of Perkins V);

**Response:**

**NOTE: NEED TO COMPLETE**

1. an explanation for the State determined levels of performance; and

**Response:**

**NOTE: NEED TO COMPLETE**

1. a description of how the State determined levels of performance set by the eligible agency align with the levels, goals and objectives other Federal and State laws, (Section 122(d)(10) of Perkins V).

As part of the procedures for determining State determined levels of performance, describe the process that will be used to establish a baseline for those levels.

**Response:**

**NOTE: NEED TO COMPLETE**

1. Provide a written response to the comments regarding State determined performance levels received during the public comment period pursuant to section 113(b)(3)(B) of Perkins V. (Section 113(b)(3)(B)(iii) of Perkins V).

As part of the written response, include a description of any the changes made to the State determined performance levels as a result of stakeholder feedback.

**Response:**

**NOTE: NEED TO COMPLETE**

1. Describe how the eligible agency will address disparities or gaps in performance as described in section 113(b)(3)(C)(ii)(II) of Perkins V in each of the plan years, and if no meaningful progress has been achieved prior to the third program year, a description of the additional actions the eligible agency will take to eliminate these disparities or gaps. (Section 122(d)(11) of Perkins V)

**Response:**

The State finds it difficult to provide specific activities for addressing disparities or gaps in performance in each of the State Plan years prior to the identification of the specific disparities or gaps that may need addressing. However, the State is committed to providing appropriate activities such as PD, training, or technical assistance to diminish or eliminate performance gaps.

Currently, the CDE monitors grantees of Perkins V funds for compliance with Perkins V regulations and to ensure that programs are meeting their targeted performance levels. Local recipients are required to review their local levels of performance within their annual Perkins V application. Districts that have not met the state-required levels of performance must submit an improvement plan, describing both why they have not met performance requirements, and their planned actions for improving performance. State staff also provide technical assistance as needed and when requested.

In this era of accountability, and given the requirements of Perkins V, increasing attention will be placed on CTE’s role in improving student achievement in a variety of arenas. CTE can lead the way in identifying outcomes that are relevant to successful adulthood and careers, valid means to assess attainment of those outcomes, the tools and systems required to collect and analyze data, and the processes necessary to ensure continuous system improvement. It must simultaneously provide data that are relevant to workforce and economic development needs and system wide improvements. The following strategies are being considered and have been identified as critical to accomplish these aims:

* Align data collection and reporting systems across programs and segments to follow student performance over time.
* Provide evaluation and program improvement tools and guidelines to local agencies to promote comparability of data and statewide benchmarking of improvements.
* Provide resources to both the CDE and the CCCCO to facilitate data collection, data analysis, and technical assistance to local agencies.
* Provide PD to practitioners in the collection and use of data, and disseminate models of effective practice and information on effective program improvement strategies.
* Allocate sufficient funding for system development, data collection, data analysis, and PD in the use of data for program improvement.

The State continues to improve and expand its statewide data collection system to meet the Perkins V accountability requirements. It is also expanding the use of the achieved core indicator performance levels to identify and direct needed program improvements and technical assistance activities, particularly to close achievement gaps.

### III. Assurances, Certifications, and Other Forms

#### A. Statutory Assurances

**□** The eligible agency assures that:

1. It made the State plan publicly available for public comment[[47]](#footnote-47) for a period of not less than 30 days, by electronic means and in an easily accessible format, prior to submission to the Secretary for approval and such public comments were taken into account in the development of this State plan. (Section 122(a)(4) of Perkins V)
2. It will use the funds to promote preparation for high-skill, high-wage, or in-demand industry sectors or occupations and non-traditional fields, as identified by the State. (Section 122(d)(13)(C) of Perkins V)
3. It will provide local educational agencies, area career and technical education schools, and eligible institutions in the State with technical assistance, including technical assistance on how to close gaps in student participation and performance in career and technical education programs. (Section 122(d)(13)(E) of Perkins V)
4. It will comply with the requirements of this Act and the provisions of the State plan, including the provision of a financial audit of funds received under this Act, which may be included as part of an audit of other Federal or State programs. (Section 122(d)(13)(A) of Perkins V)
5. None of the funds expended under this Act will be used to acquire equipment (including computer software) in any instance in which such acquisition results in a direct financial benefit to any organization representing the interests of the acquiring entity or the employees of the acquiring entity, or any affiliate of such an organization. (Section 122(d)(13)(B) of Perkins V)
6. It will use the funds provided under this Act to implement career and technical education programs and programs of study for individuals in State correctional institutions, including juvenile justice facilities. (Section 122 (d)(13)(D) of Perkins V)

#### B. EDGAR Certifications

**□** By submitting a Perkins V State Plan, consistent with 34 CFR 76.104, the eligible agency certifies that:

1. It is eligible to submit the Perkins State plan.

2. It has authority under State law to perform the functions of the State under the Perkins program(s).

3. It legally may carry out each provision of the plan.

4. All provisions of the plan are consistent with State law.

5. A State officer, specified by title in Item C on the Cover Page, has authority under State law to receive, hold, and disburse Federal funds made available under the plan.

6. The State officer who submits the plan, specified by title in Item C on the Cover Page, has authority to submit the plan.

7. The entity has adopted or otherwise formally approved the plan.

8. The plan is the basis for State operation and administration of the Perkins program.

#### C. Other Forms

**□** The eligible agency certifies, and assures compliance with the following enclosed forms:

1. Assurances for Non-Construction Programs (SF 424B) Form (OMB Control No. 0348-0040) can be located on the US Department of Education web page at: <https://www2.ed.gov/fund/grant/apply/appforms/sf424b.pdf>.
2. Disclosure of Lobbying Activities (SF LLL) (OMB Control No. 4040-0013) can be located on the US Department of Education web page at: <https://apply07.grants.gov/apply/forms/sample/SFLLL_1_2-V1.2.pdf>.
3. Certification Regarding Lobbying (ED 80-0013 Form can be located on the US Department of Education website at: <https://www2.ed.gov/fund/grant/apply/appforms/ed80-013.pdf>.
4. General Education Provisions Act (GEPA) 427 Form (OMB Control No. 1894-0005) can be located on the US Department of Education website at: <https://www2.ed.gov/fund/grant/apply/appforms/gepa427.pdf>.

### IV. Budget

#### B: Budget Form

**State Name:** California

**Fiscal Year:** 2019–20

| **Line Number** | **Budget Item** | **Percent of Funds** | **Amount of Funds** |
| --- | --- | --- | --- |
| 1 | **Total Perkins V Allocation** | **Not applicable** | $ 126,058,834 |
| 2 | **State Administration** | 5.0 % | $ 6,302,941 |
| 3 | **State Leadership** | 10.0 % | $ 12,605,883 |
| 4 | * Individuals in State Institutions |  | $ 950,000 |
| 4a | * Correctional Institutions | **Not required** | $ |
| 4b | * Juvenile Justice Facilities | **Not required** | $ |
| 4c | * Institutions that Serve Individuals with Disabilities | **Not required** | $ |
| 5 | * Non-traditional Training and Employment | 0.12% | $ 150,000 |
| 6 | * Special Populations Recruitment |  | $ 50,000 |
| 7 | **Local Formula Distribution** | 85.0 % | $ 107,150,010 |
| 8 | * Reserve | 4.87 % | $ 5,226,271 |
| 9 | * Secondary Recipients | 0 % | $ |
| 10 | * Postsecondary Recipients | 100 % | $ 5,226,271 |
| 11 | * Allocation to Eligible Recipients | 95.13 % | $ 101,923,739 |
| 12 | * Secondary Recipients | 45.01 % | $ 48,222,822 |
| 13 | * Postsecondary Recipients | 50.12 % | $ 53,700,917 |
| 14 | **State Match *(from non-federal funds)*** | **Not applicable** | $ 6,302,941 |

\*This table was provided by the federal government.

### V. State Determined Performance Levels

#### B. State Determined Performance Levels (SDPL) Form

**State Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

| **Column 1** | **Column 2** | **Column 3** | **Column 4** | **Column 5** | **Column 6** |
| --- | --- | --- | --- | --- | --- |
| **Indicators** | **Baseline Level** | **Performance Levels** | | | |
| **FY 2020** | **FY 2021** | **FY 2022** | **FY 2023** |
| **Secondary Indicators** | | | | | |
| 1S1: Four-Year Graduation Rate |  |  |  |  |  |
| 1S2: Extended Graduation Rate |  |  |  |  |  |
| 2S1: Academic Proficiency in Reading Language Arts |  |  |  |  |  |
| 2S2: Academic Proficiency in Mathematics |  |  |  |  |  |
| 2S3: Academic Proficiency in Science |  |  |  |  |  |
| 3S1: Post-Program Placement |  |  |  |  |  |
| 4S1: Non-traditional Program Concentration |  |  |  |  |  |
| 5S1: Program Quality – Attained Recognized Postsecondary Credential |  |  |  |  |  |
| 5S2: Program Quality – Attained Postsecondary Credits |  |  |  |  |  |
| 5S3: Program Quality – Participated in Work- Based Learning |  |  |  |  |  |
| 5S4: Program Quality – Other13 |  |  |  |  |  |

13The Perkins V State Plan Portal will allow an eligible agency to include on this form as many “other” program quality indicators as they choose.

| **Column 1** | **Column 2** | **Column 3** | **Column 4** | **Column 5** | **Column 6** |
| --- | --- | --- | --- | --- | --- |
| **Indicators** | **Baseline Level** | **Performance Levels** | | | |
| **FY 2020** | **FY 2021** | **FY 2022** | **FY 2023** |
| **Postsecondary Indicators** | | | | | |
| 1P1: Post-Program Placement |  |  |  |  |  |
| 2P1: Earned Recognized Postsecondary Credential |  |  |  |  |  |
| 3P1: Non-traditional Program Concentration |  |  |  |  |  |

*Provide any additional information regarding SDPLs, as necessary:*

\*These tables were provided by the federal government.

1. California *EC* can be found at: <http://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=EDC&tocTitle=+Education+Code+-+EDC> [↑](#footnote-ref-1)
2. CDE. Retrieved July 1, 2019, from <https://www.cde.ca.gov/be/ag/ag/vmgoals.asp> [↑](#footnote-ref-2)
3. CCCCO. Retrieved July 1, 2019, from <https://www.cccco.edu/> [↑](#footnote-ref-3)
4. This consists of 55,244 courses identified as CTE in DataQuest (2017−18 school year). Retrieved July 1, 2019, from <https://dq.cde.ca.gov/dataquest/> [↑](#footnote-ref-4)
5. CDE. Retrieved July 1, 2019, from <https://www.cde.ca.gov/ci/gs/hs/sspoverview.asp> [↑](#footnote-ref-5)
6. WEE is classified in the *EC* as General, Exploratory, or Vocational. General work experience exposes students to the world of work; exploratory work experience allows student to experience a variety of careers; and vocational work experience allows students to explore a career interest in greater depth. [↑](#footnote-ref-6)
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30. A quarter, trimester, or semester rotation of various CTE exploratory pathway courses, such as an introduction to computer operations, foundation skills in nutrition and foods, or the fundamentals of agriculture. [↑](#footnote-ref-30)
31. In 1990, the U. S. Department of Labor, SCANS compiled a list of three sets of “Foundation Skills” (basic skills, thinking skills, and personal qualities) and five sets of “Competencies” (resources, interpersonal, information, systems, and technology). [↑](#footnote-ref-31)
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33. CalCRN is a state agency funded with state General Funds and Perkins V Funds to provide all persons in California with career development information and resources to enable them to reach their career goals. CalCRN policy is set through an advisory committee comprised of the following agencies: CDE; CWDB; CCCCO; Department of Corrections and Rehabilitation; Department of Developmental Services; Department of Rehabilitation; Department of Social Services; and California EDD. [↑](#footnote-ref-33)
34. California Career Resource Network (CalCRN). [http://www.californiacareers.info](http://www.californiacareers.info/) [↑](#footnote-ref-34)
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38. An overview of the California accountability model (the California Model) is provided on the CDE California Accountability Model & School Dashboard Web page at <http://www.cde.ca.gov/ta/ac/cm/>. Detailed information on the production of the indicators in the new California Model is provided in the “Technical Guide for the New Accountability System” available on the CDE Web page at <http://www.cde.ca.gov/ta/ac/cm/> under the Data Files and Guide tab. [↑](#footnote-ref-38)
39. 4 Item F will only appear to the user in the Perkins V State Plan Portal in subsequent years (FY 2020-23)

    5 Item H will only appear to the user in the Perkins V State Plan Portal in subsequent years (FY 2020–23). [↑](#footnote-ref-39)
40. 6 Item I is required in FY 2019 only for states that choose to submit a full Perkins V State plan, covering FY 2019–23. [↑](#footnote-ref-40)
41. CDE. Retrieved July 1, 2019, from <https://www.cde.ca.gov/be/ag/ag/vmgoals.asp> [↑](#footnote-ref-41)
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43. This consists of 55,244 courses identified as CTE in DataQuest (2017-18 school year). Retrieved July 1, 2019, from <https://dq.cde.ca.gov/dataquest/> [↑](#footnote-ref-43)
44. CDE. Retrieved July 1, 2019, from <https://www.cde.ca.gov/ci/gs/hs/sspoverview.asp> [↑](#footnote-ref-44)
45. WEE is classified in the *EC* as General, Exploratory, or Vocational. General work experience exposes students to the world of work; exploratory work experience allows student to experience a variety of careers; and vocational work experience allows students to explore a career interest in greater depth. [↑](#footnote-ref-45)
46. The Association of Career and College Readiness Organizations (CAROCP), Retrieved July 1, 2019, from <http://www.rocpinspire.org/school_districts.asp> [↑](#footnote-ref-46)
47. An eligible agency that submits a one-year Transition Plan in fiscal year 2019 is not required to hold a public comment period on the one-year Transition Plan. Such agency must assure that it meets this public comment requirement prior to submitting its Perkins V State Plan in fiscal year 2020. [↑](#footnote-ref-47)