

CHAPTER ONE

CAREER TECHNICAL EDUCATION IN CALIFORNIA

California's immense and geographically dispersed public education system is comprised of the K-12 schools, adult schools, the community colleges, the state universities and the University of California. It is regulated by a complex Education Code and a finance system that is largely controlled by the legislature and governor.

The state's massive K-12 school system delivers public education to more than 6.3 million students in over 1,000 districts and 9,600 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 preparation of "all students with the knowledge and skills to excel in college and careers"⁴ is central to its stated mission and vision.

Career and technical education is a primary mission of California's community colleges as well. As the world's largest public higher education system, serving 2.5 million students at 109 campuses and 64 educational centers, its stated mission includes fostering "lifelong learning for all students while simultaneously advancing the state's interests in a skilled workforce and an educated citizenry."⁵ Together the K-12, adult, and community college systems, along with business and industry, and workforce development programs, comprise the core of California's vast CTE infrastructure.

California's CTE infrastructure, from the earliest education experiences until students exit the K-12, Adult Education, or community college systems, is supported with funds from a broad range of resources. In addition to apportionment funds, which comprise the majority of the funding, state-funded programs that support crucial aspects of CTE include: CalWORKS, Workability, California Partnership Academies, Specialized Secondary Programs, Agricultural Incentive Grants, grants for Career Technical Student Organizations (AB 8), the Governor's CTE Initiative, enacted as SB 70, the Economic and Career Technical Education Reform Initiative, Proposition 1D for facilities, and the Supplemental School Counseling Program. Key federal resources include the Perkins Act, Workforce Investment Act (WIA), and the Smaller Learning Communities Program.

This chapter presents a broad overview of the current structure and enrollment status of CTE in California as a backdrop to the rest of the plan. 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 program activities and initiatives are embedded within the discussion of the "system elements", in Chapter Three.

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

⁴ California Department of Education. <http://www.cde.ca.gov>

⁵ California Community Colleges Chancellor's Office. <http://www.cccco.edu> (accessed July 1, 2007).

of awakening children'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.

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 the SCANS 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 local Regional Occupational Centers and Programs (ROCPs) where they develop skills learned directly from educators with professional experience in business and industry. They can also then participate in internships and work experience. Some high schools have committed to integrating CTE and academic coursework by restructuring their schools as career-focused magnets or charters, or by creating academies or small learning communities within comprehensive high schools. The K-12 system also supports apprenticeship opportunities through ROCPs and district Adult Education programs, providing on-the-job training in hundreds of occupations.

While 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, 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 and the Division of Juvenile Justice participate in the 1% of Perkins funds allowed for state institutions, including Corrections.

Key Secondary and CDE-Sponsored Adult Programs

District-supported high school programs. California's 1100 comprehensive high schools offer over 24,000 CTE courses. The greatest concentrations of courses are in industrial and technology education, home economics, and business education. High school CTE programs offer exposure to careers and essential workplace skills, technical skill training, and reinforcement of academic skills, and prepare students for both postsecondary education and careers. High school courses in the 9th and 10th grades 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 290 state-funded California Partnership Academies and 21 career-themed Specialized Secondary Programs. In recent years, school reform efforts such as the creation of federally funded "smaller learning communities" have further facilitated the development of integrated programs. Many high schools fund academy and other integrated programs through internal or other resources.

In addition, high schools offer work-based learning through Work Experience Education (WEE), administered by school districts or other local educational agencies (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 workplace skills, and prepare for full-time employment.⁶

Regional Occupational Centers and Programs (ROCPs). ROCPs have been a major component of California’s workforce preparation system for almost 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. Regionalization provides for efficient use of limited resources, while allowing student access to a broad array of training opportunities, often requiring expensive technical equipment and specially trained and experienced instructors. ROCPs fall under one of three distinct organizational structures: school districts participating in a county office of education-operated ROCP; school districts participating under a joint powers agreement; or a single school district.

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 to 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 with priority enrollment given to those ages 16-18 or in grades 11-12⁷.

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 these placements are integral aspects of an ROCP instructor’s responsibilities, with paid time allotted for these tasks.

Statewide, there are now 74 ROCPs offering approximately 100 career pathways and programs, as well as career exploration, career counseling and guidance, and placement assistance. 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/information technology and industrial technology.

Adult Education. 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. Adult Education schools are administered by school districts and funded through “apportionment funds” (Average Daily Attendance) supplemented by federal Workforce Investment Act funds.

⁶ Work Experience Education is classified in the Education Code as General, Exploratory, or Vocational. Throughout this document, Work Experience Education is used to refer to Vocational Work Experience and some Exploratory Work Experience — experiences connected to students’ career-related coursework. In addition, Perkins funding will only support Work Experience that directly relates to the career areas that students are enrolled in; it does not support General Work Experience or Exploratory Work Experience that is not focused on students’ areas of study.

⁷ AB 2448, as described in the section below, has modified the enrollment criteria.

Adult Education serves diverse student populations, including:

- Adult immigrants
- Adults with disabilities
- Disadvantaged and homeless adults
- Incarcerated adults
- Single parents and “displaced homemakers” (unemployed or underemployed individuals who have been providing unpaid services to family members)

In 2005-06 classes were provided through 361 school districts with classrooms located in over 1,000 sites, including school classrooms, community centers, storefronts, churches, businesses, jails, as well as migrant camps, in order to effectively serve those most in need.

Short-term CTE courses, which offer a variety of career training programs linked to the needs of businesses, are included among a range of other courses, including Adult Basic Education (ABE) (e.g., reading, writing, computation, problem solving, and interpersonal skills, enabling adults to read, write, and speak in English, acquire a high school diploma, and obtain employment); English as a Second Language (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.

Adult education is also implemented through the California Community Colleges, designated as “noncredit 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 “apprenticeable” occupations in California. 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.

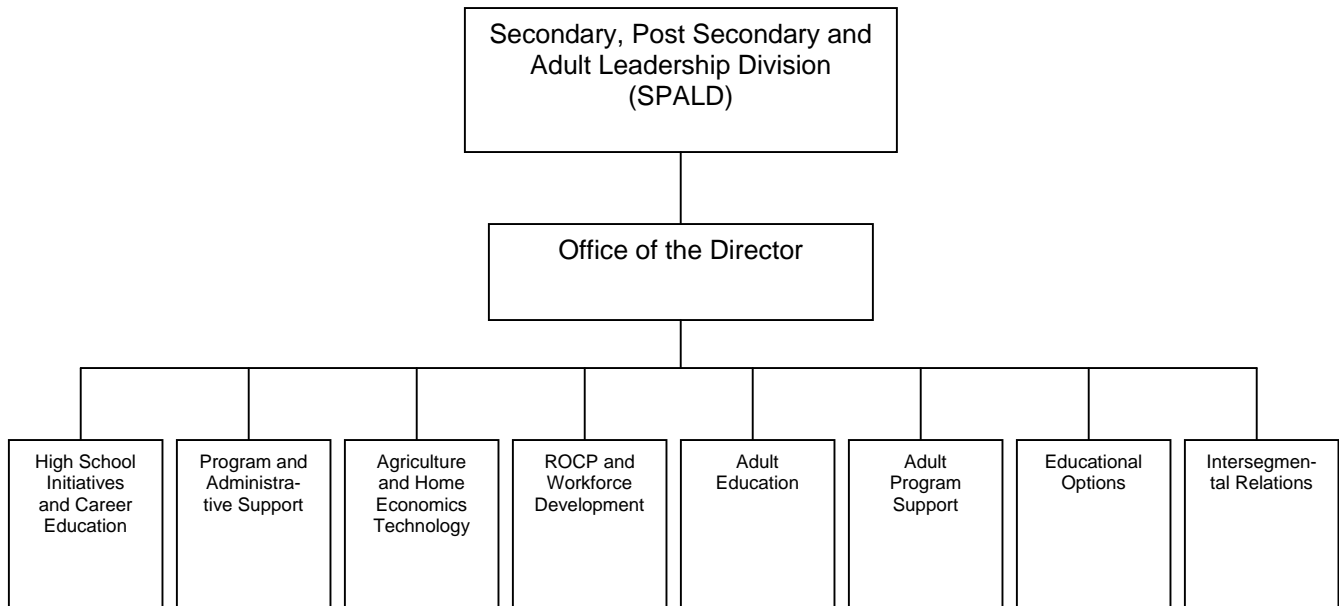
The Division of Apprenticeship Standards within the California Department of Industrial Relations administers California apprenticeship law and enforces apprenticeship standards for wages, hours, working conditions, and the specific skills required for state “journey person” certification.

Apprenticeship instruction is also offered through the California Community Colleges.

State-Level Administrative Responsibility

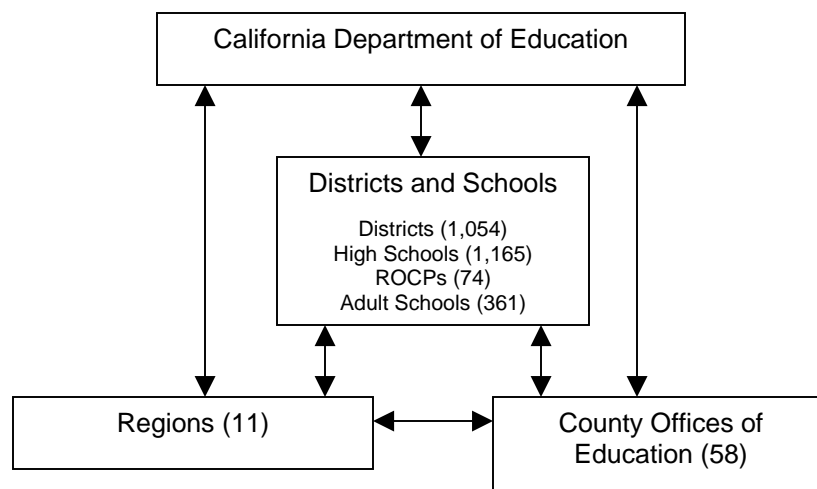
Within CDE, the major responsibility for CTE policy and program oversight resides in the Secondary, Postsecondary and Adult Leadership Division (SPALD). Additionally, SPALD provides support and direction to LEAs regarding high school initiatives, educational options, ROCPs, adult education, postsecondary preparation and workforce development. An organizational chart of SPALD and its eight offices is presented in Figure 1.

Figure 1. Organizational chart of CDE’s Secondary, Postsecondary and Adult Leadership Division, 2007



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 some CTE funds across county and district boundaries. Figure 2 below describes the flow of information among the various entities.

Figure 2. The flow of information between the local K-12 school districts and various state entities⁸



⁸ The number of high schools listed includes only comprehensive high schools; in addition the state has over 1300 alternative, continuation court, and special schools, including 9 schools supported by the Department of Juvenile Justice, serving a total of approximately 190,000 students.

Organization of Career Areas for Curriculum and Instruction, Professional Development, Technical Assistance and Industry Input

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

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

For each sector, model curriculum standards were developed in partnership with business and labor leaders, educators, and other many other important stakeholders. The California State Board of Education (SBE) adopted the standards as state policy in 2005. The following year, in 2006, the SBE adopted the Career Technical Education Curriculum Framework, a blueprint for implementing the model curriculum standards. The standards for each sector are divided into two components, foundation standards and pathway standards. Foundation standards define the base knowledge that students must acquire to be successful across the entire industry sector; the pathway standards describe the technical knowledge and skills students must acquire to enter postsecondary education or employment in that specific pathway.

These 15 industry sectors are clustered into six broad career areas that have traditionally served as an organizing structure for providing technical assistance, supporting CTE student leadership organizations and facilitating professional development:

- Agriculture Education
- Business and Marketing Education
- Health and Human Services
- Home Economics and Careers in Technology
- Industrial and Technology Education
- Arts, Media and Entertainment Technology

In addition to facilitating high-quality, demand-driven CTE curriculum, the 15 sectors will provide the framework for organizing technical assistance, professional development, industry engagement and advisory committees in the years to come.

The Community College CTE Delivery Structure

In the community college system, CTE is responsive to the needs of new, incumbent, and transitional workers. It provides “open access” to career preparation through noncredit programs, for-credit certificate and degree programs leading directly to employment, “transfer” programs that prepare students for transition to four-year institutions, and programs to enhance skills of incumbent workers and for retraining of incumbent and re-entering workers. Across the system, it offers courses in over 270 occupational program areas as well as work-based learning opportunities such as apprenticeships and “cooperative work experience education”, 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 technology and natural resources; and the state’s geographic scope, the 109 community colleges have been divided into ten regions and organized into seven regional consortia to provide service and support to the coordination and improvement of CTE programs. They are:

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

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

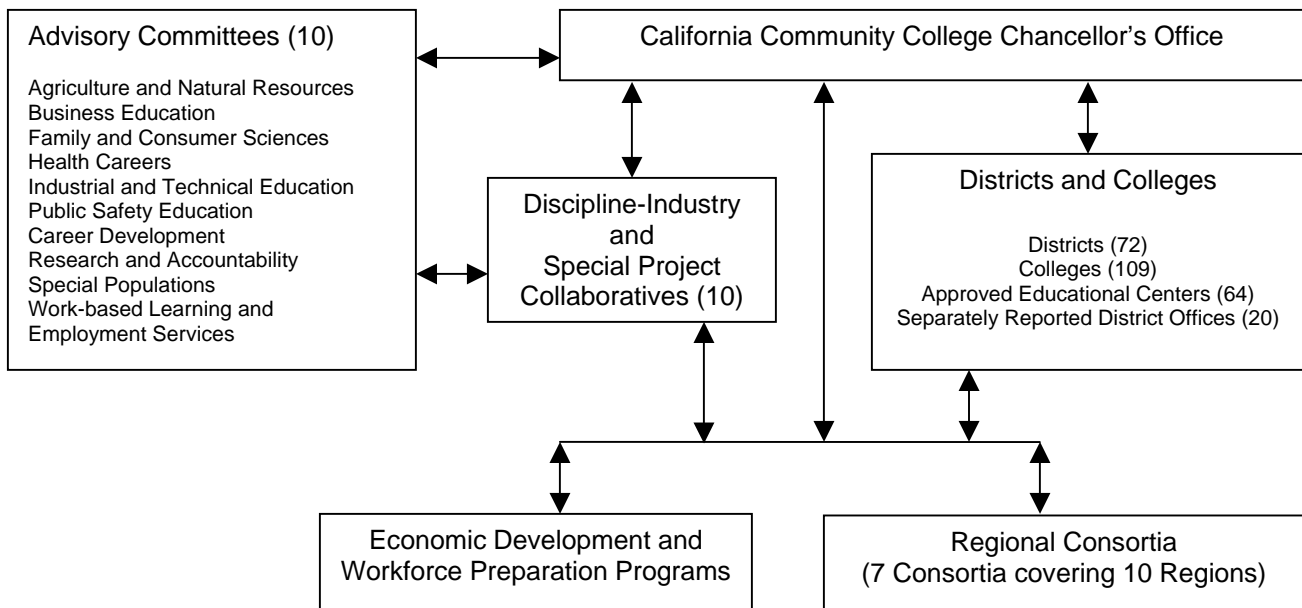
Additionally, to ensure a process for direct linkages between faculty and administrators with representatives from business, industry and labor on a statewide basis, the CCCCCO has established ten advisory committees, comprised of roughly 15 nominated stakeholders and practitioners each, to focus on either discipline-specific or cross-disciplinary issues. They are charged with advising the Chancellor’s Office about the currency 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 ten 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 Chancellor’s Office 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 Chancellor’s Office. The purpose of these collaborative projects is to improve CTE programs and instruction in each of the ten areas. Activities focus on developing models of “effective practice” for replication at the local level. Models are disseminated through both the regional consortia and the Economic and Workforce Development Programs (EWDP), as shown in Figure 3, which describes how information flows through the community college system.

Figure 3. The flow of information through the California community college system, 2007



The Economic and Workforce Development Programs (EWDP) 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 EWDP provides the logistical, technical, and marketing infrastructure for the community college system’s economic development efforts. It operates a network of 115 regional delivery centers, which work with CTE programs, and addresses statewide strategic priority areas such 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

CTE in the community colleges is offered through several types of programs.

Community College Occupational Programs. The community colleges offer courses in over 270 occupational program areas, ranging from accounting to World Wide Web administration, many of which lead to certificates based on industry standards. Programs on most campuses are overseen by Vocational Deans or Deans of Vocational Education and Economic Development. Most of the programs are designed to lead directly to employment, but many also prepare students for further education in the university system.

All of California's community colleges offer Cooperative Work Experience Education ("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, and may be offered in association with non-occupational academic programs or to students at large, as a means to integrate classroom study with planned and supervised experiences in the workplace.

Community College-Based Adult Education. Adult education at the community college level falls under the rubric of "noncredit instruction." Noncredit instruction provides curriculum and educational services in nine areas. These areas include educational courses and programs specifically designed to serve four special populations: Immigrants, Parents, Persons with Substantial Disabilities and Older Adults. The other areas cover a variety of disciplines within five instructional domains: Basic Skills, English as a Second Language, Family and Consumer Science, Health and Safety Education and Career Technical Education.

Community College-Based Apprenticeship. To provide apprenticeship training for their employees, many employers partner with the California Community Colleges as well as the CDE. The community colleges have over 160 apprenticeship programs comprising a total of 66 trades/crafts titles located on 39 campuses. Apprentices receive on-the-job training via their employer, and in the evening or on weekends receive employer-selected "related and supplemental instruction" (RSI). All RSI apprenticeship programs offered by the community colleges must be approved by the Chancellor of the California Community Colleges as well as by the Division of Apprenticeship Standards, a division 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 degree, such as an Associate of Arts or Associate of Science.

Tech Prep Programs. Tech Prep programs are designed to link high school and two-year college programs in specific technical fields and occupational areas. They are 4+2, 3+2, or 2+2 planned sequences of study in technical fields beginning as early as grade nine and linked to two years of postsecondary occupational education or through apprenticeship programs of at least two years following secondary instruction. The sequence culminates in an associate degree or a certificate. The program is also designed "to strengthen links between secondary and postsecondary schools."⁹

⁹ U.S. Department of Education, <http://www.ed.gov/programs/techprep/index.html> (accessed August 1, 2007).

As funded by the Carl D. Perkins Act, Tech Prep programs are required to have seven elements¹⁰:

- 1) An articulation agreement between secondary and postsecondary consortium participants
- 2) A 2+2, 3+2, or a 4+2 design with a common core of proficiency in math, science, communication, and technology
- 3) A specifically developed Tech Prep curriculum
- 4) Joint in-service training of secondary and postsecondary teachers to implement the Tech Prep curriculum effectively
- 5) Training of counselors to recruit students and to ensure program completion and appropriate employment
- 6) Equal access of special populations to the full range of Tech Prep programs
- 7) Preparatory services such as recruitment, career and personal counseling, and occupational assessment

In addition, states are required to give priority consideration to Tech Prep programs that do the following:

- Offer effective employment placement
- Transfer to four-year baccalaureate programs
- Are developed in consultation with business, industry, labor unions, and institutions of higher education that award baccalaureate degrees
- Address dropout prevention and re-entry and the needs of special populations

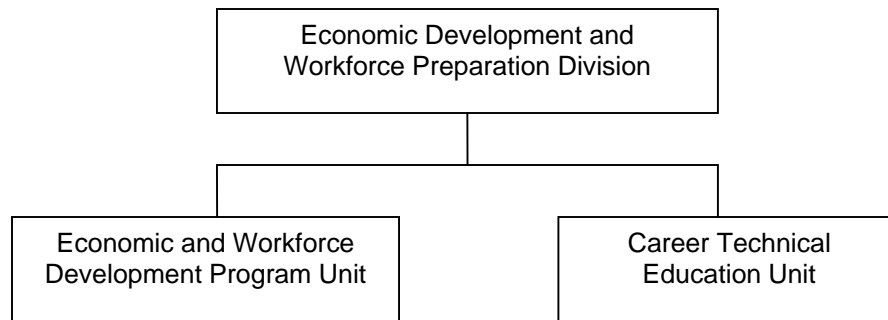
Contract Education. Beyond providing ongoing classes on their campuses, community colleges also offer “contract education” courses, which are developed specifically to serve the needs of a particular business or industry. These programs are often managed by Deans of Contract Education or Deans of Contract Education and Economic Development, depending on the campus. Overall, the community colleges have served over 26,000 businesses through contract education services.

Administrative Responsibility

CTE in the community colleges is administered by the Economic Development and Workforce Preparation Division through the Economic and Workforce Development program (EWD Program) and the Career Technical Education unit. Staff from both programs work with the regional consortia, the advisory committees, the Academic Senate and directly with districts and colleges.

¹⁰ Ibid.

Figure 4. California Community College Chancellor’s Office Economic Development and Workforce Preparation Division



A complete organization chart of the Community College Chancellor’s Office is provided in Appendix ____.

Workforce Development, Business, and Community Partners

In addition to the secondary and postsecondary education systems, CTE is delivered through other public sector and community-based services, and is further supported by business and industry partnerships.

Within the public sector, a critically important partner in the workforce development system and a link to education is the California Workforce Investment Board (WIB), mandated by the federal Workforce Investment Act (WIA), and by extension, California’s 50 local Workforce Investment Boards. The California WIB determines strategic priorities, identifies high-growth industries, develops a workforce investment budget, and establishes local workforce investment areas across the state.¹¹

Local workforce investment boards, made up of at least 50% business and industry representatives, in partnership with local elected officials, plan and oversee the local workforce system. Local boards also designate "One-Stop" operators and identify providers of training services, monitor system performance against established performance measures, negotiate local performance measures with the state board and the Governor, and help develop the labor market information system. In addition 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.¹²

Postsecondary CTE programs assisted under Perkins IV are mandatory partners in the One Stop career center delivery system established by WIA. As partners, these CTE programs both participate in the oversight of the One Stop career centers and provide direct services to One Stop clients.

In addition, to better connect the education and workforce system, in 2007 the Governor approved Senate Bill 293 (SB 293). SB 293 focuses on:

¹¹ U.S. Department of Labor, <http://www.doleta.gov/business/pws.cfm> (accessed August 1, 2007).

¹² Workforce Investment Act of 1998, U.S. Department of Labor Employment and Training Administration, September 1998, <http://63.88.32.17/usworkforce/wia/Runningtext2.htm> (accessed August 1, 2007).

- transforming its current job training, job placement, and vocational education programs into an integrated, accessible, and accountable workforce investment system;
- providing lifelong learning for all Californians, promoting self-sufficiency, linking education and training to economic development, and preparing California to successfully compete in the global economy;
- ensuring that all programs are accessible to all Californians, including persons with economic, physical, or other barriers to employment.

SB 293 also requires coordinated state planning for workforce development, as described further in later chapters of this plan.

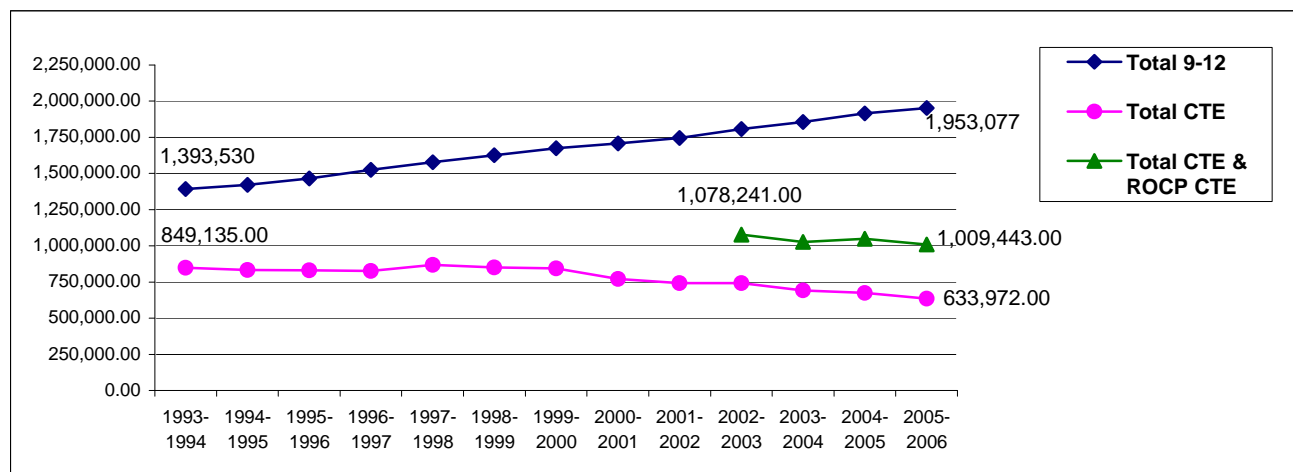
Community partners play important roles in California’s K-12 and community college systems as well. In addition to often serving on local WIBs and youth councils, local nonprofit organizations, professional and trade associations, and youth development organizations such as the Boys’ and Girls’ Clubs,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

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

Secondary CTE Enrollment

Figure 5 compares secondary CTE course enrollment to total high school enrollment, accounting for 633,972¹³ enrollments, or 32.5% of the state’s 1,953,077 enrollments in 9th through 12th grades in 2005-2006. Adding in secondary ROCPs for the years when data are available, from 2002-2006, the number of CTE enrollments reaches over 1 million.

Figure 5. CTE course enrollment compared to total high school enrollment, 1993-2005¹⁴



¹³ Does not include Arts, Media and Entertainment courses (153,325 enrollment), which are not classified as “vocational” in CBEDS.

¹⁴ CBEDS 2005-06; ROCP 2002-06.

Although these data indicate that many high school students enroll in CTE, there has been a steady decrease in high school-based CTE enrollments between 1993 and 2006. There has also been a decrease in the unduplicated count of students taking at least one CTE class; in 1993, 596,923 students took at least one high school-based CTE course; in 2005, this number was 531,331. At the same time, overall secondary enrollments have been increasing. As a percent of overall secondary enrollments, CTE enrollments dropped from 61% to 31% — a difference of 30%, as shown in Figure 6. The percent of students who took at least one CTE class dropped from 43% to 27%, a difference of 16%. This suggests that a decrease in the number of CTE courses taken by each student, in addition to the number of students enrolling in CTE, contributes to the decrease in CTE enrollments. As described, ROCP enrollments bring the percent of CTE enrollments to 52% in 2005-06, indicating that some of the decrease in high school-based CTE is due to students' participation in ROCPs. Several additional explanations have been provided for the decreasing trend in high school-based programs. These include students' lack of information about course options and program content; competing course requirements, including “a-g” college preparation courses and courses to assist students in passing the California High School Exit Exam; and an overall focus on high-stakes testing and remediation that impacts the master schedules of schools.

Figure 6. CTE enrollment as a percent of overall enrollment at the secondary level, 1993-2005¹⁵

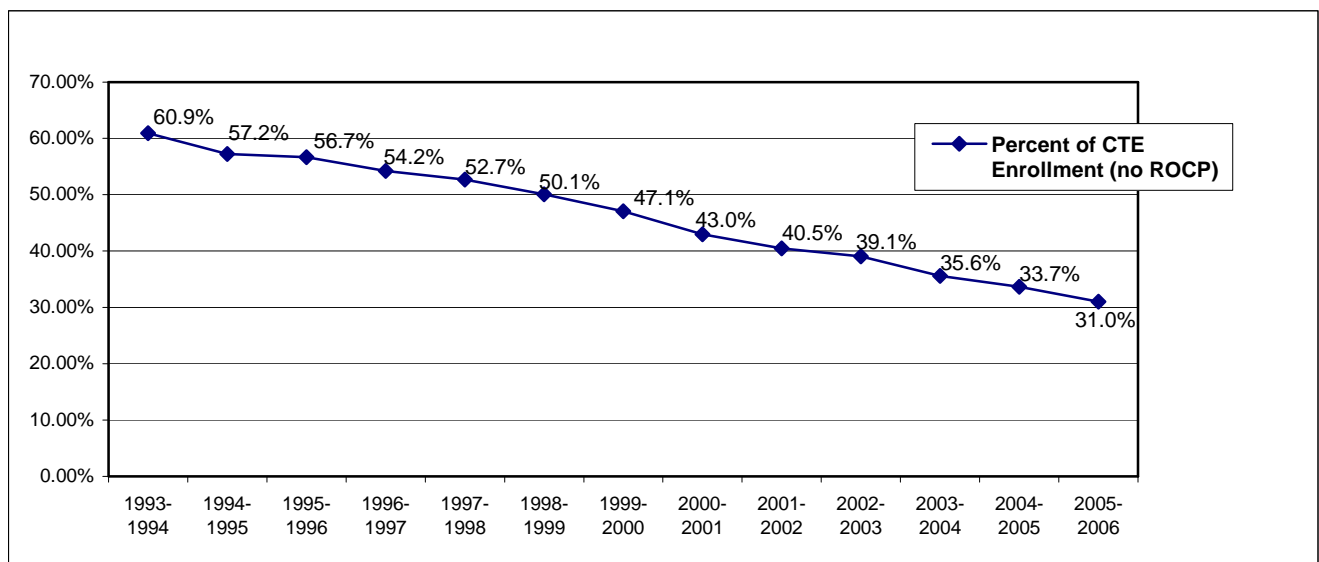


Table 1 below shows the breakdown of enrollments by CTE program area¹⁶. CTE course-taking at the secondary level is concentrated in four career areas: industrial and technology education; arts, media and entertainment; home economics; and business education, accounting for nearly 87% of the enrollments.

¹⁵ CBEDS 1993-06

¹⁶ The areas correspond to the six broad K-12 CTE career areas, plus Work Experience Education, which is classified as a “vocational course” in CBEDS.

Table 1. Secondary CTE enrollment by career area, 2005-2006¹⁷

1.	Industrial and Technology Education ¹⁸	241,697	30.7%
2.	Arts, Media, and Entertainment ¹⁹	153,325	19.5%
3.	Home Economics	151,772	19.3%
4.	Business Education	137,826	17.4%
5.	Agriculture	56,685	7.2%
6.	Health Careers	12,716	1.6%
7.	Work Experience and Other CTE ²⁰	34,012	4.3%
Total ²¹		788,033	100%

Table 2 displays the secondary enrollment distribution by gender and race. The data show 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 2. Gender and race of students enrolled in high school academic and CTE courses, 2006-2007²²

	High School Enrollment	CTE Enrollment
Gender		
• Male	50.7%	55.4%
• Female	49.3%	44.6%
Ethnicity		
• Asian and Indian	9.9%	8.4%
• Filipino and Pacific Islander	3.5%	3.4%
• Hispanic	43.4%	43.2%
• Black	7.8%	7.0%
• White	32.9%	36.0%
• Multiple	2.4%	1.9%

Postsecondary CTE Enrollment

CTE course enrollments at the California community colleges constitute a large number and significant proportion of the overall postsecondary enrollments, accounting for roughly 1.4 million CTE students, or about 56% of the 2.5 million students enrolled in the community college

¹⁷ CBEDS 2005-06; does not include ROCP data.

¹⁸ Includes Industrial Technology (227,409 enrollments) plus Applied CTE (14,288 enrollments)

¹⁹ Arts, Media, and Entertainment is currently not classified as a CTE course in CBEDS

²⁰ Work Experience Education (29,012 enrollments); "Other CTE" (5,000 enrollments)

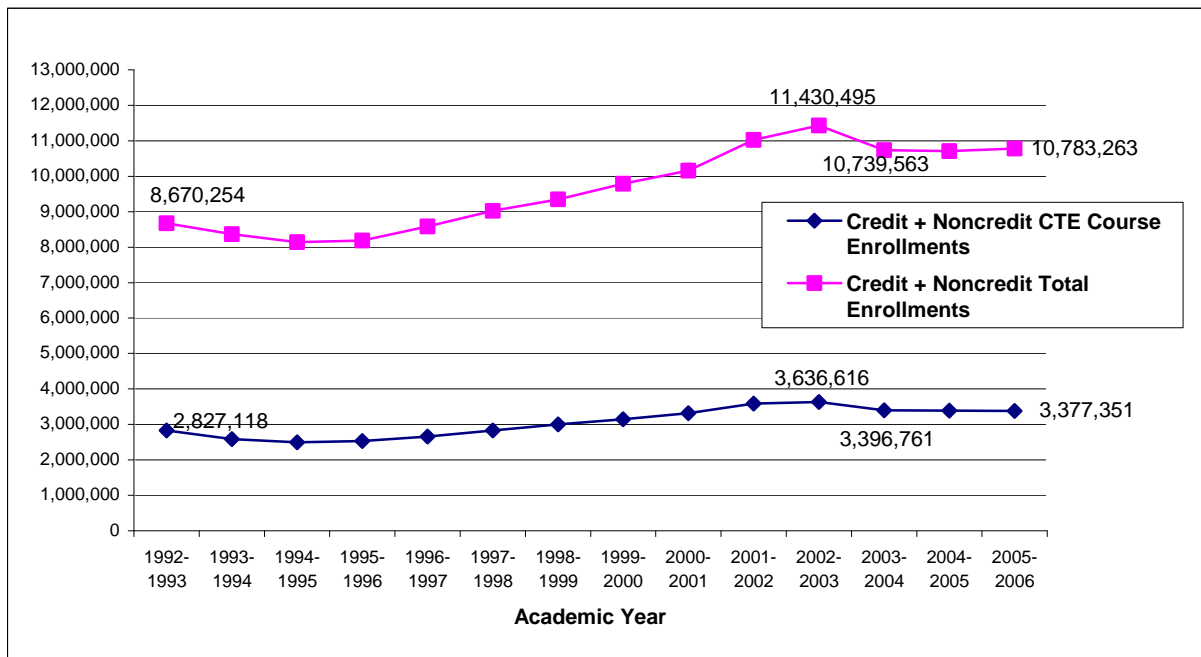
²¹ Courses labeled as CTE in CBEDS totaling 633,972 plus Arts, Media and Entertainment

²² CBEDS 2006-07; does not include ROCP data.

system²³.

Figure 7 shows postsecondary CTE credit and noncredit (including community college adult education) course enrollment trends from 1992-2005, compared to overall enrollments. CTE enrollments have roughly paralleled total community college enrollments over the last 14 years, remaining at just over 30% of total enrollments. CTE enrollments steadily climbed to a high of 3,636,616 in 2002, and then began to decline due to budget cuts that 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 results 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, 1992-2005²⁴



Course enrollment varies by career area, with students concentrated most heavily in business education (34%), followed by agriculture and natural resources (17%), industrial and technical education (13%), family and consumer sciences (13%), public safety education (12%), and health occupations (10%)²⁵.

The community colleges enroll students across a broad age span given its commitment to lifelong learning. Just over one half of all students enrolled in the 2005-06 academic year were age 24 or younger (50.5%), with nearly a quarter of all students age 19 or younger (24.1%)²⁶; while nearly half (49.5%) were age 25 or older, with 22.3% 40 or older.

²³ CCCCCO MIS data, retrieved Oct. 2006.

²⁴ CCCCCO MIS data, retrieved July 2007.

²⁵ TOPS Pro; includes Tech-Prep and Adult Education.

²⁶ CCCCCO MIS data, retrieved Aug. 2007.

Table 3 displays the community college enrollment distribution by gender and race, 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%).

Table 3. Gender and race of students enrolled in community college academic and CTE courses, Spring, 2006²⁷

	Percent of Community Colleges Enrollment	Percent of CTE Enrollment
Gender		
• Female	55.0%	51.9%
• Male	43.7%	46.6%
Race		
• White/Caucasian	36.7%	39.6%
• Hispanic	28.8%	26.1%
• Asian	11.8%	14.7%
• African American	7.2%	7.6%

Adult CTE Enrollment in Adult Education and ROCP

Additionally, the total number of adults enrolled in CTE programs administered by ROCPs and Adult Education courses was 332,072 for the 2005-06 school year. More than half were enrolled in business and administrative services (41.9%) and health services (16.9%)²⁸.

Special Populations CTE Enrollment

The state's K-12 and 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. Table 4 shows the 2004-05 enrollments of secondary, postsecondary and adult special populations groups enrolled in CTE courses. Despite data reported as duplicated counts, since many students reported being members of more than one special population category, there are roughly 1 million students who identified as nontraditional enrollees and economically disadvantaged, followed by more than 300,000 students reporting limited English proficiency.

²⁷ CCCCCO MIS data, retrieved Oct. 2006.

²⁸ Carl D. Perkins Data System, data retrieved Dec. 2006.

Table 4. Secondary, postsecondary and adult special population enrollments in CTE, 2004-05²⁹.

	Secondary (N=1,345,615)		Postsecondary (N=1,408,036)		Adult (N=345,616)		Combined (N=3,099,267)	
Individuals with Disabilities	95,997	7.1%	134,352	9.5%	19,967	5.8%	250,316	8.1%
Economically Disadvantaged	373,274	27.7%	481,323	34.2%	138,530	40.1%	993,127	32.0%
Nontraditional Enrollees	582,719	43.3%	348,845	24.8%	207,679	60.0%	1,139,243	36.8%
Single Parents	5,544	0.4%	63,372	4.5%	27,848	8.0%	96,764	3.1%
Displaced Homemakers	1,393	0.1%	20,558	1.5%	7,109	2.0%	29,060	0.9%
Limited English Proficient	204,171	15.2%	97,656	6.9%	26,496	7.7%	328,323	10.6%
Other Educational Barriers	70,832	5.2%	0	0%	30,853	8.9%	101,685	3.3%

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 service to these students, to the businesses and organizations that rely on the human resources that 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.

Chapter 2 that follows discusses the demographic, economic, educational and policy context for CTE. Chapter 3 provides the vision, mission, goals, and principles proposed by stakeholders for CTE, and further detail about current CTE practice, along with strategies in each of 11 "system elements" to strengthen CTE in the years to come.

²⁹ Carl D. Perkins Vocational-Technical Educational Basic Grant Student Enrollment Report, 2004-2005; note these data are duplicated counts.