

CHAPTER ONE

CAREER TECHNICAL EDUCATION IN CALIFORNIA

California's public education system comprises K-12 schools, adult schools, community colleges, state universities, and the University of California. It is regulated by a complex Education Code 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 6.3 million students in more than 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 the system's stated mission and vision.

Career 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 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: 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) entitled 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 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

⁴ California Department of Education. Retrieved July 1, 2007, from <http://www.cde.ca.gov>

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

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 skills⁶, 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 learn from educators with experience in business and industry. They can also then participate in internships and workplace experiences. 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 smaller learning communities within comprehensive high schools. The K-12 system also supports apprenticeship opportunities through ROCPs 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 and the Division of Juvenile Justice participate in the 1 percent of Perkins funds allowed for state institutions, including Corrections.

Key Secondary and CDE-Sponsored Adult Programs

District-Supported High School Programs. California's 1,100 comprehensive high schools offer nearly 34,000 CTE classes⁷, with the greatest concentration of enrollments in industrial and technology education; home economics; arts, media, and entertainment; 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 ninth and tenth 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,

⁶ In 1990, the U.S. Department of Labor, Secretary's Commission on Achieving Necessary Skills (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); see Appendix A for the complete list.

⁷ These consist of 24,370 classes labeled as "vocational" in CBEDS and an additional 9,577 classes in Arts, Media, and Entertainment, classified as "academic" in CBEDS (2005-06 school year).

school reform efforts such as the creation of federally funded “smaller learning communities” have further facilitated the development of integrated programs. In addition, many high schools develop academy and other integrated programs with internal resources, often in partnership with industry or other organizations.

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 essential workplace skills such as the SCANS 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 as well as a requirement of the Perkins legislation.⁸

Regional Occupational Centers and Programs (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. Regionalization 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 fall under one of three distinct organizational structures: school districts participating in an ROCP operated by a county office of education, 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 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 with priority enrollment given to those ages 16-18 or in grades eleven and twelve.⁹

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 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.

⁸ Work Experience Education is classified in the Education Code as General, Exploratory, or Vocational. General work experience exposes students to the world of work; exploratory work experience allows students to experience a variety of careers; and vocational work experience allows students to explore a career interest in greater depth.

⁹ AB 2448, as described in the section, has modified the enrollment criteria.

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. Adult education schools are administered by school districts and funded through “apportionment funds” (average daily attendance) supplemented by federal Workforce Investment Act funds.

Adult schools serve diverse student populations, including:

- Adult immigrants
- Adults with disabilities
- Disadvantaged and homeless adults
- Incarcerated adults
- Older 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 more than 1,000 sites, 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. In addition, 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, 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. 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 “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.

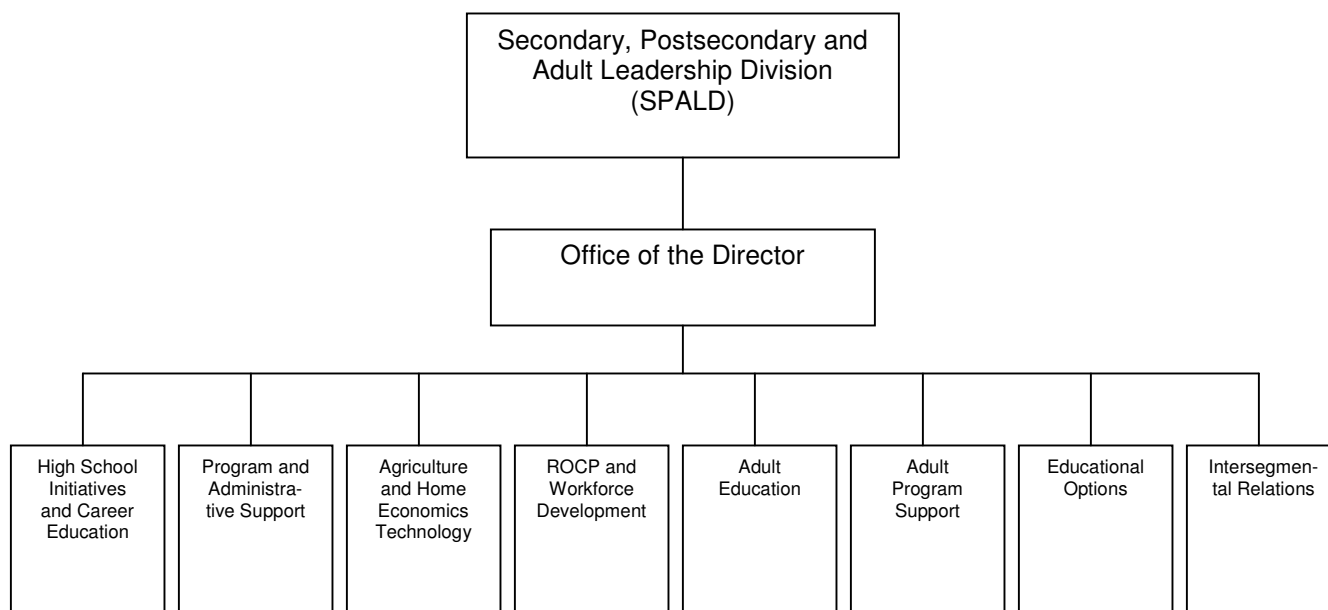
Programs in California are developed and conducted by program sponsors including individual employers, employer associations, or jointly sponsored labor/management associations. Local ROCP and adult schools individually contract with the program sponsors. The Division of Apprenticeship Standards within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

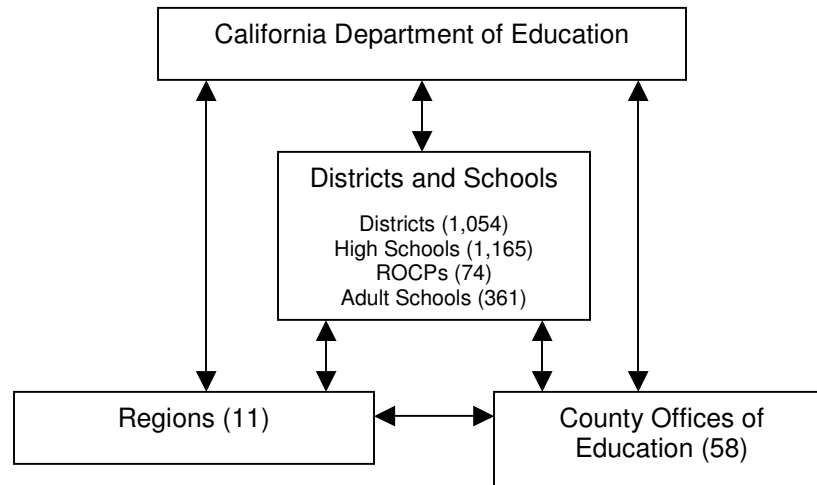
State-Level Administrative Responsibility

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 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.¹⁰

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 policymakers 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 school students. In addition, within each sector, two to seven career pathways have been identified. The sectors are as follows:

1. Agriculture and Natural Resources
2. Arts, Media, and Entertainment
3. Building Trades and Construction
4. Education, Child Development, and Family Services
5. Energy and Utilities
6. Engineering and Design
7. Fashion and Interior Design
8. Finance and Business
9. Health Science and Medical Technology
10. Hospitality, Tourism, and Recreation
11. Information Technology

¹⁰ 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 nine schools supported by the Department of Juvenile Justice, serving a total of approximately 190,000 students.

12. Manufacturing and Product Development
13. Marketing, Sales, and Service
14. Public Services
15. Transportation

For each sector, “model curriculum standards” have been developed in partnership with business and labor leaders, educators, and other many other stakeholders. The California State Board of Education (SBE) adopted the California CTE Model Curriculum Standards, Grades Seven Through Twelve, as state policy in 2005. In January 2007, the SBE adopted the CTE Framework for California Public Schools, Grades Seven Through Twelve, as a blueprint for implementing the 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; 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:

1. Agriculture Education
2. Business and Marketing Education
3. Health and Human Services Education
4. Home Economics Careers and Technology Education
5. Industrial and Technology Education
6. Arts, Media, and Entertainment Education

The matrix below reflects the six broad areas of CTE in relation to the 15 industry sectors.

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

Source: The California CTE Model Curriculum Standards.

In addition to facilitating high-quality, demand-driven CTE curricula, 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 more than 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 support for the coordination and improvement of CTE programs:

- North/Far North
- Bay/Interior Bay
- Central
- South Central

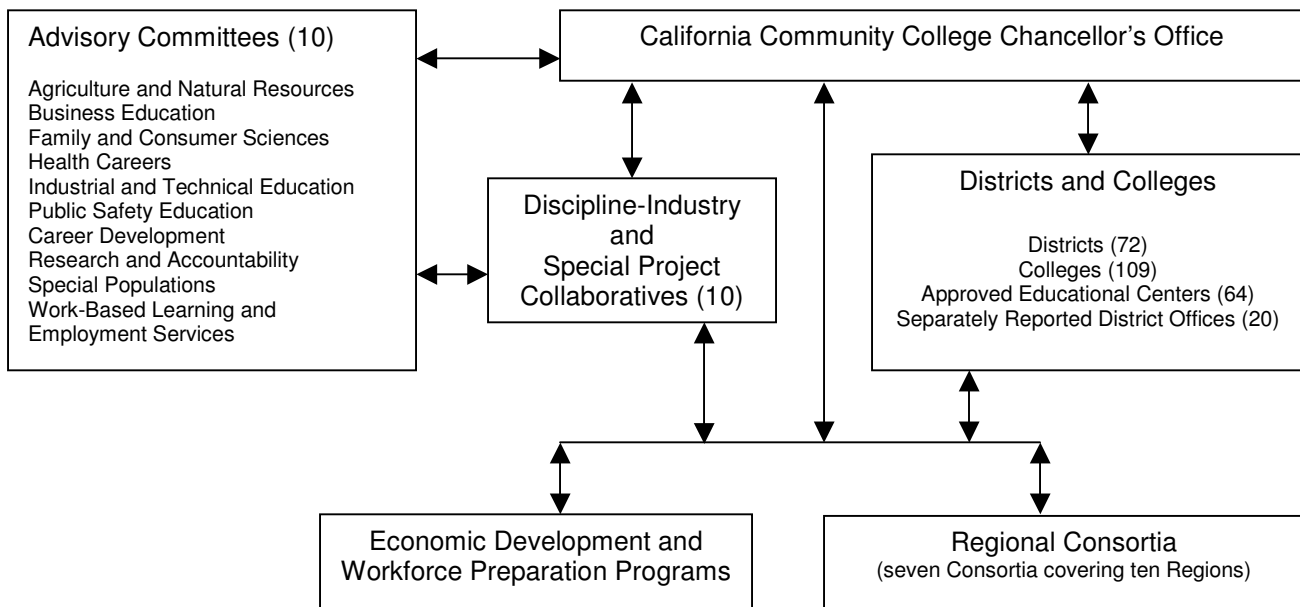
- Los Angeles/Orange County
- Desert
- San Diego/Imperial

The regional consortia play an important role 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 play an important role 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 Chancellor's Office 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 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 collaboratives is to improve CTE programs and instruction in each of the 10 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 (EWDPs) ensure 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 EWDPs provide the logistical, technical, and marketing infrastructure for the 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

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. 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.

Community College Credit-Bearing Occupational Programs. The 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 Chancellor's Office, along with thousands of short term programs approved at the college level, are currently offered in the 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 university system.

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 Chancellor’s Office. 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 Chancellor's Office, Title 5 of the California Code of Regulations, and the California Education Code. Additionally, the regular and systematic review of instructional programs is mandated not only by Title 5 regulations and Education Code 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 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 Noncredit Instruction. The equivalent of adult schools in the community college is “noncredit instruction.” Noncredit instructional programs at the community colleges provide high-quality lifelong learning opportunities and services to adults through curriculum and educational services in nine areas:

1. Parenting, including parent cooperative preschools, classes in child growth and development, and parent-child relationships
2. Elementary and secondary basic skills and other courses and classes such as remedial academic courses or classes in reading, mathematics, and language arts
3. English as a second language
4. Classes and courses for immigrants eligible for educational services in citizenship, English as a second language, and workforce preparation classes in the basic skills of speaking, listening, reading, writing, mathematics, decision-making and problem-solving skills, and other classes required for preparation to participate in job-specific technical training
5. Education programs for persons with substantial disabilities
6. Short-term vocational programs with high employment potential
7. Education programs for older adults
8. Education programs focusing on home economics
9. Health and safety education

Like adult schools administered by the CDE, noncredit instruction is offered in various locations. Noncredit CTE programs are often the first step on a career ladder for students with low levels of foundational skills and are usually aligned with and facilitate transition to credit programs. Funding for noncredit is provided on a positive attendance basis (hours of actual attendance). Noncredit curriculum approval procedures are much like credit CTE program approval processes, except that all noncredit courses and programs, regardless of length, are approved by the Chancellor's Office.

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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 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 "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, 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 associate degree.

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 defined as planned sequences of study in technical fields beginning as early as grade nine and linked to two years of postsecondary occupational education or 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.”¹¹

The Carl D. Perkins Act requires Tech Prep programs to include seven elements:¹²

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 for 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 more than 26,000 businesses through contract education services.

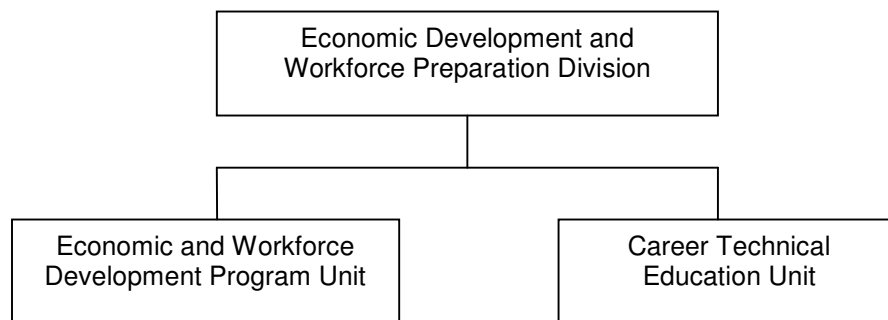
Administrative Responsibility

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

¹¹ Tech-Prep Education (2006, Oct. 13). *ED.gov*. U.S. Department of Education. Retrieved August 1, 2007, from <http://www.ed.gov/programs/techprep/index.html>

¹² *Ibid.*

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



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 Investment Board (WIB) and by extension, California's 50 local Workforce Investment Boards. The California WIB is mandated by the federal Workforce Investment Act (WIA); it determines strategic priorities, identifies high-growth industries, develops a workforce investment budget, and establishes local workforce investment areas across the state.¹³

Local workforce investment boards are made up of at least 50 percent business and industry representatives. In partnership with local elected officials, they plan and oversee the local workforce system. Local boards also designate "One Stop" operators that oversee and manage One Stop Career Centers 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 boards identify providers of training services, monitor system performance against established performance measures, negotiate local performance measures with the state board and the Governor, and review 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.¹⁴

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

¹³ The Public Workforce System (2007, July 9). *Employment and Training Administration*. U.S. Department of Labor. Retrieved August 1, 2007, from <http://www.doleta.gov/business/pws.cfm>

¹⁴ Alexis M. Herman, et al. (1998, Aug. 7). Workforce Investment Act of 1998. *Employment and Training Administration*. U.S. Department of Labor. Retrieved August 1, 2007, from <http://63.88.32.17/usworkforce/wia/Runningtext2.htm>

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

- Transforming 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, adult school, and community college systems as well. In addition to serving on local workforce investment boards 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 myriad career-related educational services.

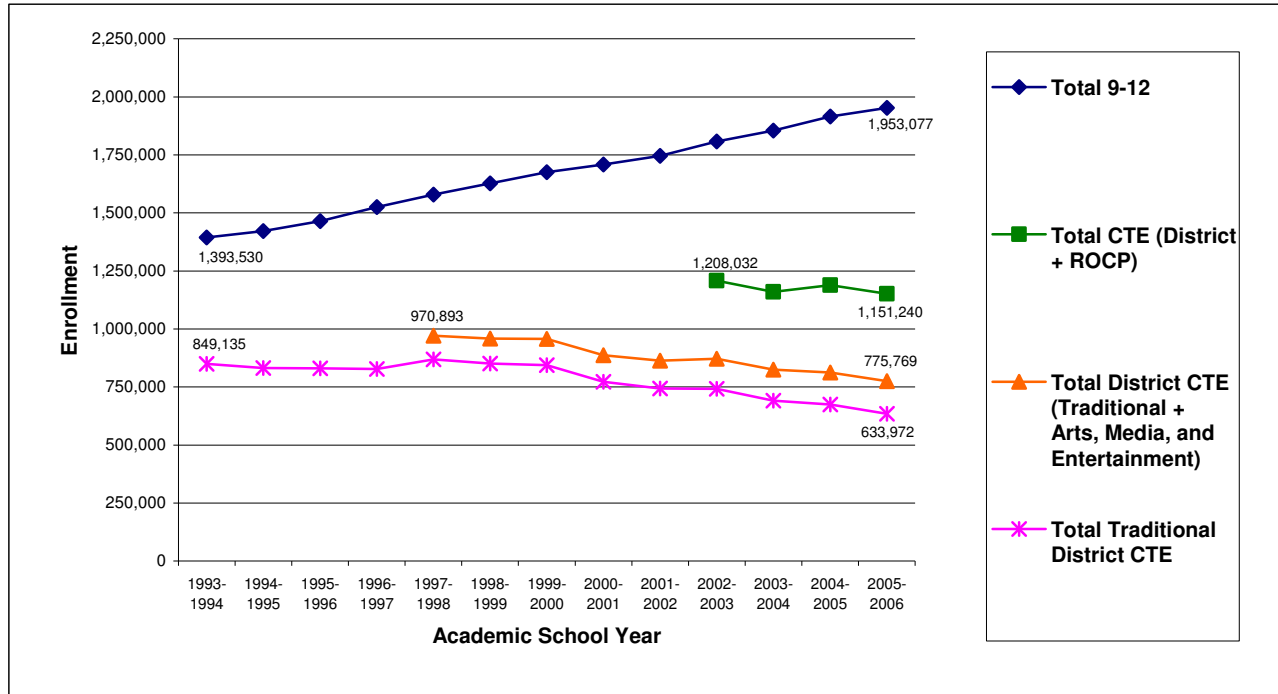
Finally, as described in greater detail in Chapter Three, businesses not only participate on local workforce investment boards and CTE advisory committees and planning councils, they also provide direct services to students and faculty by offering career exploration opportunities, work-based learning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

Secondary CTE Enrollment

As shown in figure 5, secondary district-based CTE courses accounted for 775,769¹⁵ enrollments, or 39.7 percent of the state's 1,953,077 enrollments in grades nine through twelve in 2005-2006. Adding in secondary ROCPs for the years when data are available (2002-2006), the number of CTE enrollments reaches more than 1.5 million.

¹⁵ Includes both "traditional" CTE courses, labeled as "vocational" in CBEDS, totaling 633,972, plus Arts, Media, and Entertainment CTE courses, totaling 141,797 which are currently classified as "academic" but that meet the criteria for CTE: curriculum is explicitly designed to prepare students for employment, whether after postsecondary education or training or directly after high school; over 50 percent of the curriculum content is career knowledge and skills; and curriculum is directly informed and validated by industry education or training or directly after high school; more than 50 percent of the curriculum content is career knowledge and skills; and curriculum is directly informed and validated by industry.

Figure 5. CTE course enrollment compared to total high school enrollment, 1993-2005.¹⁶



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, based on the CBEDS vocational course counts, 596,923 students took at least one high school-based CTE course; in 2005, this number dropped to 531,331 students, or 27% of the total high school population. At the same time, overall secondary enrollments have been increasing. As a percentage of overall secondary enrollments, CTE enrollments dropped from 61 percent to 31 percent — a difference of 30 percent, as shown in Figure 6. The percentage of students who took at least one CTE class dropped from 43 percent to 27 percent, a difference of 16 percent. 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 percentage of CTE enrollments to 59 percent 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 non-CTE "a-g" college preparation courses¹⁷ 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.

¹⁶ CBEDS 2005-06; ROCP 2002-06.

¹⁷ The "a-g" subject requirements are a list of courses approved by the University of California that California high school students must take in order to qualify for admission to the University of California or the California State University systems.

Figure 6. CTE enrollment as a percentage of overall enrollments at the secondary level, 1993-2005.¹⁸

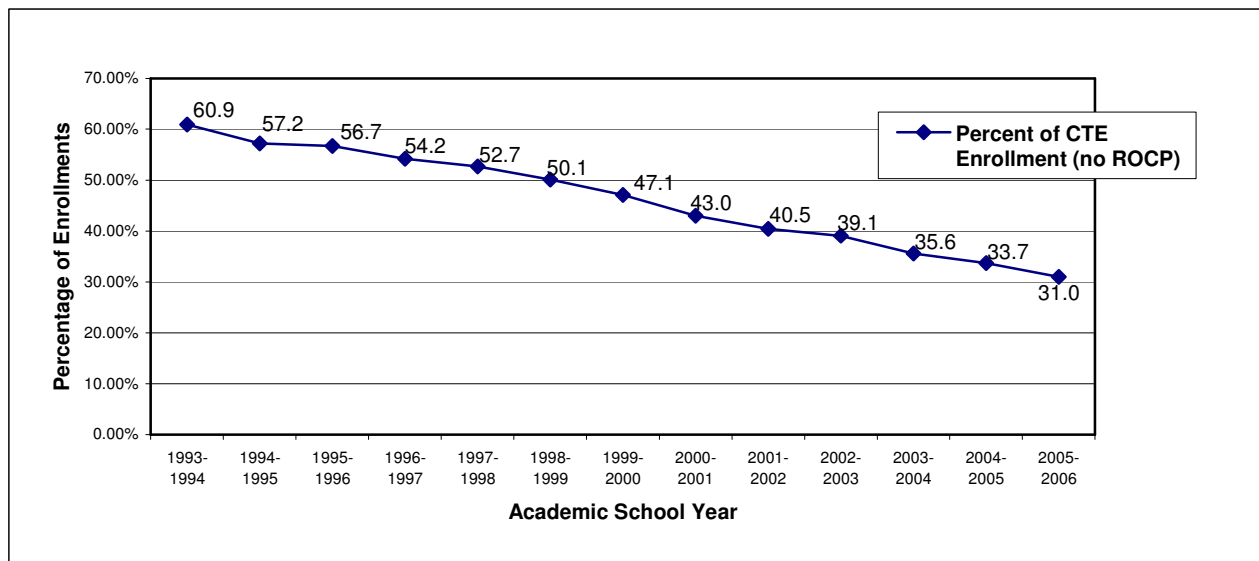


Table 1 shows the breakdown of enrollments by CTE program area.¹⁹ CTE course taking at the secondary level is concentrated in four career areas: industrial and technology education; home economics; arts, media, and entertainment; and business education, together accounting for nearly 87 percent of the enrollments.

Table 1. Secondary CTE enrollment by career area, 2005-2006.²⁰

	Career Areas	Number of Enrollments	Percent of Enrollments
1.	Industrial and Technology Education ²¹	241,697	31.13
2.	Home Economics	151,772	19.55
3.	Arts, Media, and Entertainment ²²	141,797	18.26
4.	Business Education	137,826	17.75
5.	Agriculture	56,685	7.30
6.	Health Careers	12,716	1.64
7.	Work Experience and Other CTE ²³	34,012	4.37
Total ²⁴		788,033	100.00

¹⁸ CBEDS 1993-2005 for “vocational” courses, excluding Arts, Media, and Entertainment CTE.

¹⁹ 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.

²⁰ CBEDS 2005-06; does not include ROCP data.

²¹ Includes Industrial Technology (227,409 enrollments) plus Applied CTE (14,288 enrollments).

²² Arts, Media, and Entertainment is currently not classified as a CTE course in CBEDS.

²³ Work Experience Education (29,012 enrollments); “Other CTE” (5,000 enrollments).

²⁴ Courses labeled as CTE in CBEDS totaling 633,972 plus Arts, Media, and Entertainment, totaling 141,757.

Table 2 displays the secondary enrollment distribution by gender and ethnicity. 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 ethnicity of students enrolled in high school academic and CTE courses, 2006-2007.²⁵

STUDENTS	High School Enrollment (Percent)	CTE Enrollment (Percent)
Gender		
• Female	49.3	44.6
• Male	50.7	55.4
Ethnicity		
• African American	7.8	7.0
• American Indian	0.8	0.9
• Asian	9.1	7.5
• Filipino and Pacific Islander	3.5	3.4
• Hispanic	43.4	43.2
• White	32.9	36.0
• Multiple	2.4	1.9

Postsecondary CTE Enrollment

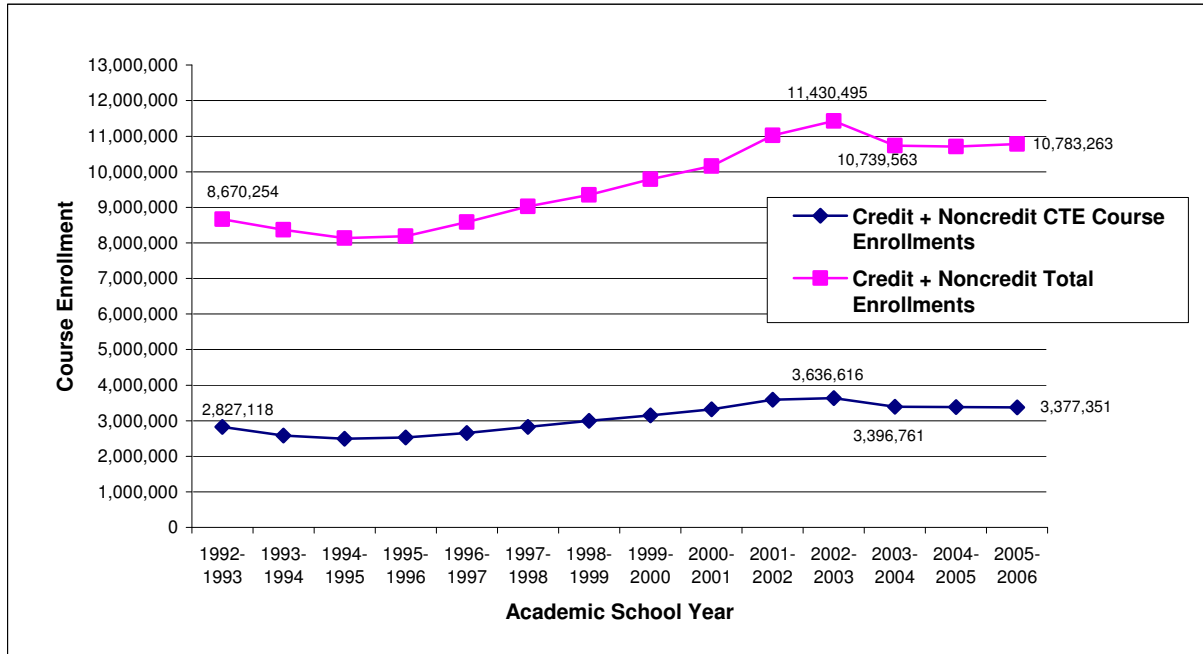
CTE course enrollments at the California Community Colleges constitute a significant proportion of overall community college enrollments, accounting for roughly 1.4 million students in CTE programs, or about 56 percent of the 2.5 million students enrolled in the community college system.²⁶

Figure 7 shows the postsecondary CTE credit and noncredit (including community college adult education) course enrollment trend 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 the total. 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 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.

²⁵ CBEDS 2006-07; does not include ROCP data.

²⁶ CCCCCO MIS data. Retrieved October 2006.

Figure 7. Postsecondary CTE course enrollment compared to total course enrollment, 1992-2005.²⁷



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).²⁸

With their commitment to lifelong learning, the 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),²⁹ while nearly half (49.5 percent) were age 25 or older, with 22.3 percent 40 or older.

Table 3 displays the 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).

²⁷ CCCCCO MIS data. Retrieved July 2007.

²⁸ TOPS Pro; includes Tech-Prep and adult education.

²⁹ CCCCCO MIS data, Retrieved August 2007.

Table 3. Gender and ethnicity of students enrolled in community college academic and CTE courses, spring 2006³⁰

Students	Community Colleges Enrollment (Percent)	CTE Enrollment (Percent)
Gender		
• Female	55.1	51.8
• Male	43.8	47.1
• Unknown	1.1	1.2
Ethnicity		
• African American	7.2	7.8
• American Indian/Alaskan Native	0.9	1.0
• Asian and Pacific Islander	16.0	14.5
• Hispanic	28.8	27.0
• White/Non-Hispanic	36.8	39.0
• Unknown or Other	10.3	10.8

Adult CTE Enrollment in Adult Schools and ROCP

Additionally, the total number of adults enrolled in CTE programs administered by ROCPs and adult school courses was 332,072 for the 2005-06 school year. More than half were enrolled in either business and administrative services (41.9 percent) and health services (16.9 percent).³¹

Special Populations CTE Enrollment

The state's K-12, adult school, 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, defined in Perkins IV 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 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 almost as many who identified as economically disadvantaged, as well as more than 300,000 students reporting limited English proficiency.

³⁰ CCCCO MIS data. Retrieved October 2006; Perkins CAR Basic Grant Student Enrollment Report, 2005-2006.

³¹ Carl D. Perkins Data System. Retrieved December 2006.

Table 4. Secondary, postsecondary, and adult special population enrollments in CTE, 2004-05³²

Adult Special Populations	Secondary (N=1,345,615)		Postsecondary (N=1,408,036)		Adult (N=345,616)		Combined (N=3,099,267)	
	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent	Enrollment	Percent
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 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.

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.

³² Carl D. Perkins Vocational-Technical Educational Basic Grant Student Enrollment Report, 2004-2005; note these data are duplicated counts.