

# 2006

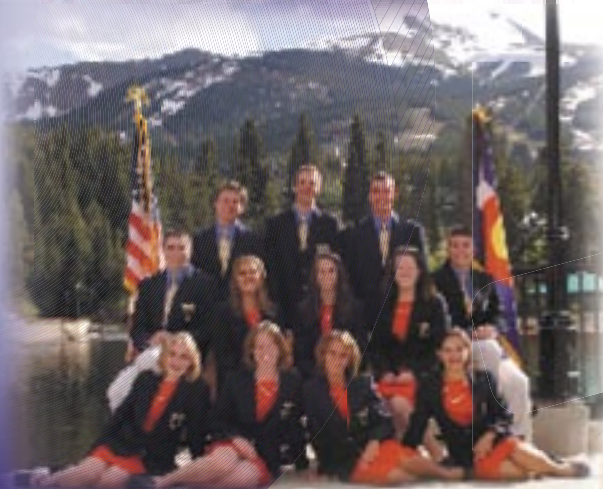
## Colorado Vocational Act



*Student Access*

*Student Success*

*Operational Excellence*



**Thirty-Sixth Annual Report**



# Colorado Vocational Act 2006

*This publication of the thirty-sixth annual CVA report is dedicated in memory  
of Dr. Mike Davis, president of Pueblo Community College.*

COLORADO COMMUNITY COLLEGE SYSTEM



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## A LETTER FROM THE PRESIDENT

This report contains accountability information concerning career and technical education (CTE) in the public school districts of Colorado for the 2005-2006 school year. I respectfully submit this report to the Colorado General Assembly in compliance with the State Assistance for Vocational Education Act (commonly referred to as the Colorado Vocational Act) of 1970 as revised.

The general assembly provided \$19,996,048 in Fiscal Year 2005-2006 to assist more than 165 school districts in funding 1224 secondary career and technical education programs. A primary objective of the Colorado Community College System (CCCS) is to ensure that, through school districts and private sector cooperation, high quality career and technical education programs are available to all secondary students who want, need, and can benefit from such programs. These programs are critical to the post-high school success of many Colorado students, whether they advance to further education and/or immediately enter the job market.

Career and technical education programs provide a path for seamless transition between secondary and postsecondary education. For example, the Colorado Community College System is developing an Advanced Credit Pathways program that will enable Colorado high school students to earn community college credits for high school CTE programs that meet CCCS curriculum and competency standards. Our goal is to encourage more high school students to continue on to postsecondary education.

In 2005-2006, total secondary enrollment in state approved career and technical education programs was just over 106,000. These enrollments represent 37% of the total 9-12 grade secondary enrollment in Colorado.

The CTE programs offered through Colorado's high schools are an important part of the comprehensive delivery system of CTE in the state. These programs are fundamental to the economic vitality and future development of local communities and the State of Colorado.

Your comments on this publication are welcomed.

Dr. Nancy McCallin  
President  
Colorado Community College System





## INFORMATION AND FACT SHEET CVA FACTS

The thirty-sixth Annual Report is submitted to the Colorado General Assembly in compliance with the Colorado Vocational Act (CVA) of 1970. This act provides State funds to assist local school districts in providing career and technical education (CTE) programs. Career and technical education is charged with preparing people for jobs and further education.

During the 2005–06 school year, the General Assembly appropriated \$19,996,048 for the Colorado Vocational Act. Entitlements for school districts under the Act were greater than the appropriations; therefore, it was necessary to prorate the reimbursement to each district to approximately 70.85 percent of its entitlement.

## COLORADO CTE FACTS

In Colorado high schools during FY 05–06, there were just over 106,000 secondary enrollments in career and technical education programs that were approved and supported under the authority of the Colorado Vocational Act.

The number of programs funded in 05–06 under the Colorado Vocational Act was 1,224.

Colorado Vocational Act programs are offered in 280 high schools and other attendance centers within more than 160 school districts and 11 other institutions throughout the state.

Of the just over 106,000 enrollments in CVA approved programs, 38.86 percent were identified as economically and/or academically disadvantaged and 9.89 percent as disabled.

Minority students represent 31.08 percent of the enrollment in programs under the Colorado Vocational Act.

Career and technical education and academics are linking in Colorado schools to demonstrate that CTE classes are challenging both technically and academically, integrating academic skills directly into the curricula to best prepare our students for the workplace or further education. The advantage of this integration is that career-oriented students will appreciate the practical applications of academics. Career and technical education is about helping students, workers, and lifelong learners fulfill their working potential.

Technology education is an academic subject

in its own right. Understanding and properly using technology is now a part of a student's overall general education.

The modern workplace is a complex and challenging environment; it requires a skilled frontline workforce that can help companies to innovate, improve productivity, and push innovations to the marketplace faster than their competitors. Such skills and abilities are directly related to employees' attainment of career and technical education and training. The U.S. Department of Labor reports that, currently, 80% of the jobs in our economy require some specific skills education or training.

Employers of all sizes, across the nation and throughout Colorado, believe that a skilled workforce is vital to maintaining competitiveness. As the baby boomers retire, the demand for skilled workers is quickly expected to outpace supply. Alan Greenspan has predicted that U.S. demand for skilled workers will exceed supply by 12–15 million workers by the end of this decade. Therefore, career-related education is essential to providing a solid pipeline of workers to our employers. CTE imparts important academic, technical, and workplace behavior skills that are both valued by employers and highlight the relevance of school to students. Learning within a career-related context helps students see the significance of what they are studying, while helping them to gain confidence in their ability to perform in school and at work; furthermore, a vocational context helps to engage some students in learning who would otherwise not be engaged.

“Toward A More Competitive Colorado,” a recent study released by the Metro Denver Economic Development Corporation, highlights five emerging industries in Colorado: aerospace, bioscience, energy, financial services, and information technology/software development. Colorado boasts the fourth largest aerospace economy in the U.S., employing more than 55,100 workers in a variety of occupations, including engineers, operations and engineer technicians, and manufacturers. Bioscience careers includes a broad spectrum of jobs in engineering, manufacturing, research, and development for pharmaceutical, biotechnology, and medical device companies. Colorado is a leader in bringing energy resources to the marketplace because its environment is rich with fossil fuel and renewable energy resources. Employment in this



industry includes careers in mining and extraction, engineering, manufacturing equipment, laboratory testing, technicians, and research. The finance industry dominates Colorado in the areas of banking, insurance, and investments. Information technology continues to be a hot industry, including employment in software, hardware, and telecommunications sectors. A general theme of the report is the inter-relationship of the industries and occupations across these hot industry clusters, all of which require a solid foundation and specific training in technology. Top emerging industries are all represented in Colorado career and technical education programs.

## COLORADO OPPORTUNITIES

The Colorado Community College System continues to expand opportunities by approving career and technical education programs that meet local community, state, and global needs. These needs, paired with an ever changing and emerging workforce, are considered when programs are provided in rural or metro areas of the state. CTE classes are strategically designed and aligned with entry-level job skills and/or further education to better prepare students for the future. Using the state “advanced credit pathway” system, a program funded by a portion of the Workforce Investment Act Title V incentive grant dollars awarded to Colorado in FY 2003 for exceeding agreed upon performance levels for WIA Title 1, the Adult Education and Family Literacy Act (AEFLA), and the Carl D. Perkins Vocational and Technical Education Act (Perkins III), secondary classes are articulated with postsecondary program competencies, allowing students to earn college credits while attending high school. These pre-approved CTE credits earned are be aligned with any of the 13 system community colleges to encourage further coursework in that area. Classes must be taught with identical competencies to be approved into this “advanced credit pathway” system. This will reduce student costs, improve retention, provide higher quality students, and enable seamless transfer of credit from high school to community colleges. Continued Legislative support through the Colorado Vocational Act is needed to fund programs for students in career and technical education pathways.

## DEFINITIONS

**A career and technical education program** is a sequence of courses that are directly related to the preparation of individuals in paid and unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree. Such programs include competency-based applied learning that contributes to a person’s academic knowledge, higher order reasoning and problem-solving skills, work attitudes, general employability skills, and the occupational-specific skills necessary for economic independence as a productive and contributing member of society.

**A secondary (high school) career and technical student** is a student of high school age enrolled in a state-approved career and technical education program offered through a high school, an area technical college, or a community college.

**Employed related** means employed in an occupation in which the skills required for entry level employment are directly related to the career and technical training program, or enlisted in the military full-time. Also includes all Core FCS program completers and any ACE and Multi-Occupational employed completer because they are considered to have 100 percent placement related to training.

**Employed unrelated** means employed in an occupation in which the skills required for entry-level employment are not directly related to the career and technical training program.

**Full-time equivalent (FTE)** is one student attending six hours per day for 180 days.

**In the labor force** includes students who are employed related, employed unrelated, and unemployed.

**Unemployed** means not currently employed and seeking employment.

**Continuing education** means pursuing additional academic or career and technical education at either the secondary or postsecondary level.

**Other** means not in the labor force (includes deceased, disabled, or ill), not continuing education, and not in the military full-time.

**Completer** is a student who has completed all of the objectives stated in the Colorado Community College System Program Approval Document for a specific career and technical education program.



## ENROLLMENT AND PLACEMENT TRENDS

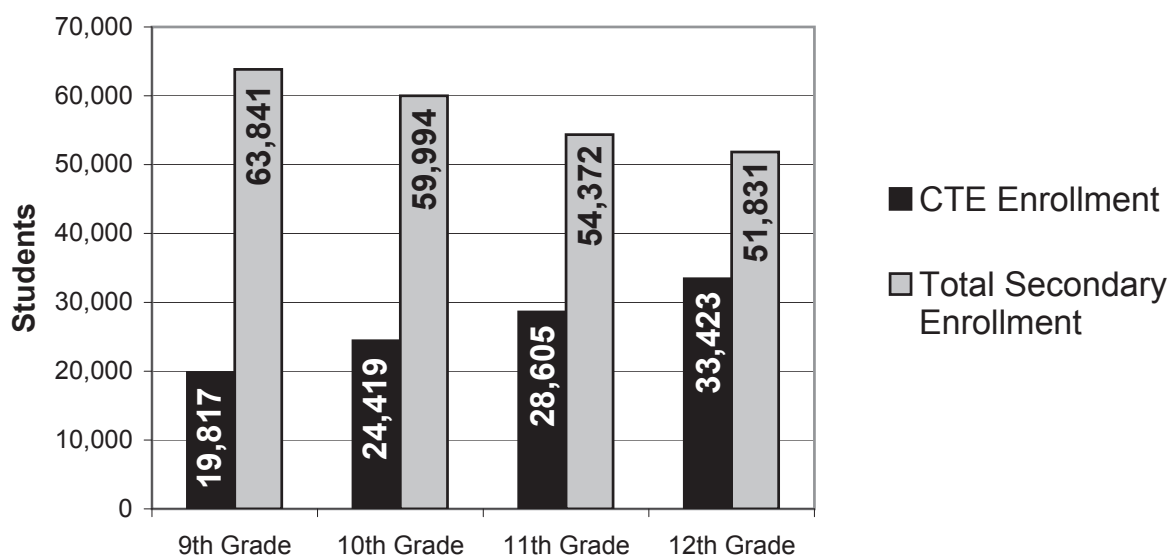
For FY 2006, total secondary CTE enrollments were 106,362 (duplicated headcount). These enrollments represent 85,381 students (unduplicated headcount)—or 37 percent of the total 9–12 grade secondary enrollment in the state (230,038). In the 12th grade, as students approach graduation and anticipate entering the labor force, participation in CTE programs is 65 percent. The majority of career and technical education programs are one-year or two-year programs.

During the last three years, for those students contacted and available for the labor force, the percentage obtaining jobs has remained relatively consistent at about 97 percent. In the 2006 “Student Follow-Up Study of 2005 Completers”, 92.8 percent of those students contacted who were seeking jobs obtained positions in fields related to their CTE training. The comparable figures for 2004 and 2005 are 87.3 percent and 88.7 percent, respectively.

CTE Program Area	2003-04		2004-05		2005-06	
	Enrollment	Percent Employed	Enrollment	Percent Employed	Enrollment	Percent Employed
Special Programs	6,633	92%	6,733	92%	6,192	90%
Agriculture Education	4,573	97%	4,548	98%	4,699	98%
Business Education	43,166	96%	43,829	97%	44,502	99%
Family and Consumer Sciences Education	13,667	100%	13,332	100%	14,104	100%
Family and Consumer Sciences Occupations	7,394	97%	7,820	98%	8,876	98%
Health Occupations	1,341	96%	1,466	98%	1,430	99%
Marketing Education	8,854	98%	8,567	96%	8,641	98%
Multi-Occupational Cooperative Education	318	98%	373	98%	327	100%
Technical Education	6,213	94%	6,881	93%	8,542	97%
Trades and Industrial Education	8,753	97%	9,556	94%	9,049	97%
<b>Total Secondary CTE Enrollments</b>	<b>100,912</b>	<b>97%</b>	<b>103,105</b>	<b>97%</b>	<b>106,362</b>	<b>98%</b>
<b>Total Secondary (9-12) Enrollments</b>	<b>221,347</b>		<b>225,369</b>		<b>230,038</b>	



### 2005-2006 Colorado Secondary CTE Enrollment by Grade\*



\*Graph does not include secondary CTE students in the “special” grade category.

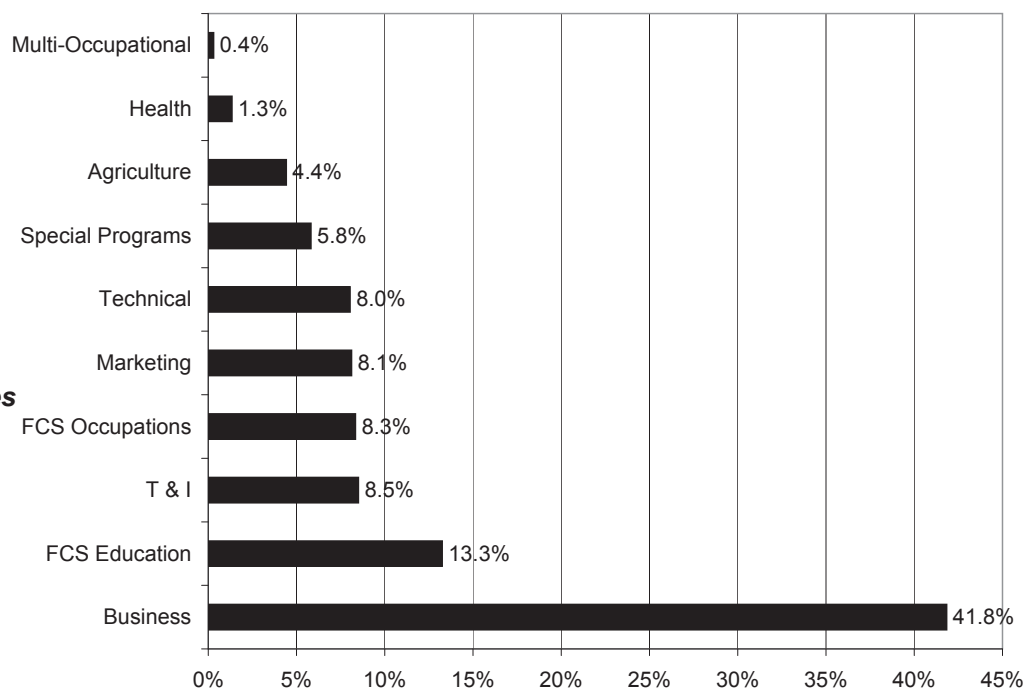




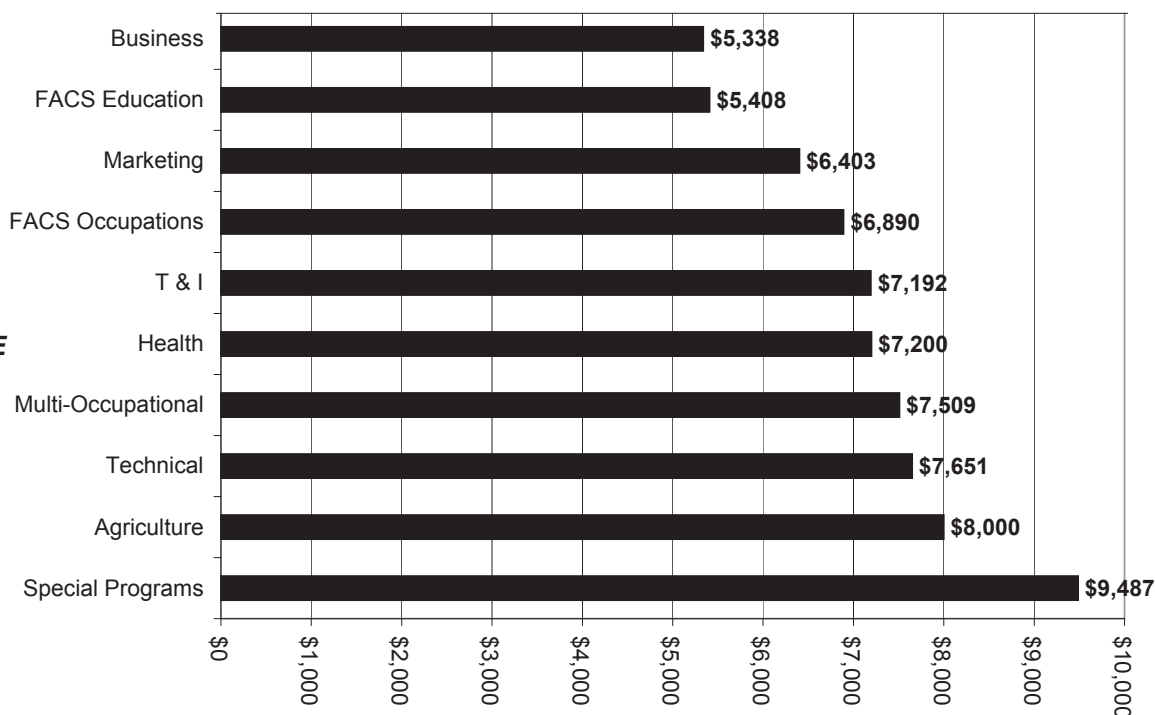
## ENROLLMENT AND COSTS BY PROGRAM AREA

The graphs below illustrate that 80.0% of all career and technical enrollment is concentrated in five program areas: Business, Family and Consumer Sciences Education, Trades and Industrial (T & I), Family and Consumer Sciences Occupations, and Marketing. Business is the program area with the lowest average full-time-equivalent cost, while Special Programs has the highest average cost.

**2005-06 Colorado  
Secondary CTE  
Enrollment Percentages  
by Program Area**



**2005-06 Colorado  
Secondary CTE  
Program Cost Per FTE  
by Program Area**





## ENROLLMENT AND FINANCIAL HIGHLIGHTS

When FTE enrollment is considered for FY2006, three program areas account for nearly two-thirds (58.04%) of career and technical education enrollment: Business (33.10%), Trades and Industrial (15.82%), and Special Programs (9.12%).

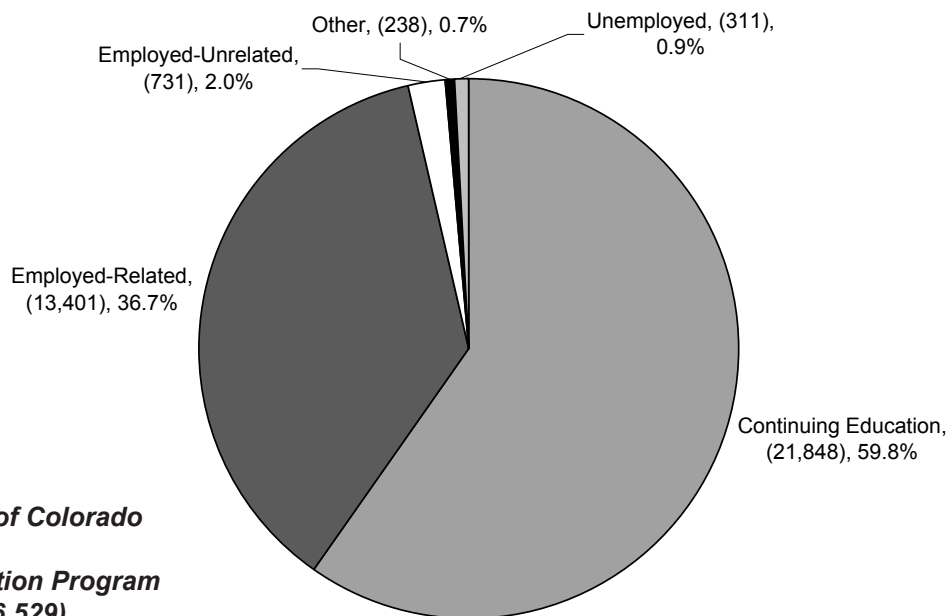
CTE Program Area	Enrollment	FTE* Enrollment	Total Cost of Programs (\$)	Cost per FTE (\$)
Special Programs	6,192	1,125.59	\$10,677,942	\$9,487
Agriculture Education	4,699	833.02	\$6,663,911	\$8,000
Business Education	44,502	4,095.27	\$21,860,234	\$5,338
Family and Consumer Sciences Education	14,104	1,108.88	\$5,996,758	\$5,408
Family and Consumer Sciences Occupations	8,876	963.84	\$6,640,728	\$6,890
Health Occupations Education	1,430	406.47	\$2,926,540	\$7,200
Marketing Education	8,641	831.70	\$5,325,473	\$6,403
Multi-Occupational Cooperative Education	327.00	47.30	\$355,152	\$7,509
Technical Education	8,542	973.02	\$7,444,565	\$7,651
Trades and Industrial Education	9,049	1,952.01	\$14,038,880	\$7,192
<b>TOTAL</b>	<b>106,362</b>	<b>12,337.10</b>	<b>\$81,930,183</b>	<b>\$6,641</b>

\* A full-time equivalent student (FTE) is one student attending six hours a day for 180 days.



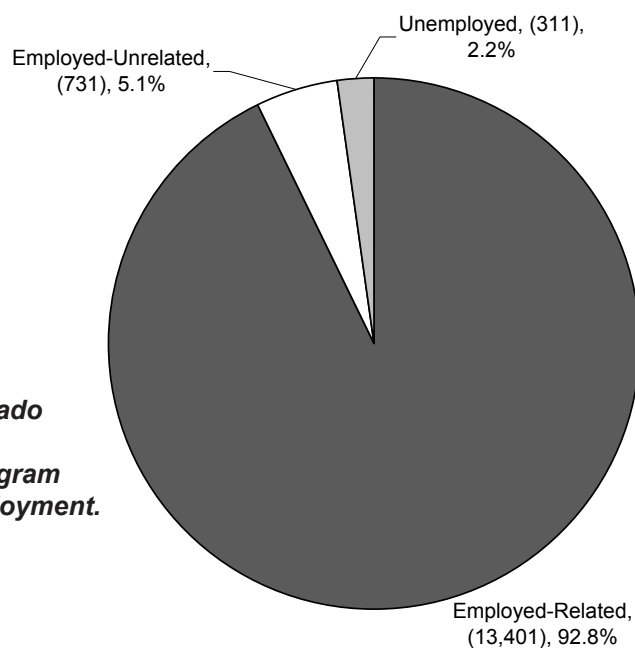
## PLACEMENT RATES OF RESPONDENT COMPLETERS OF CTE PROGRAMS

The aggregate placement rates for all career and technical education programs operated under the Colorado Vocational Act reflect the effectiveness of these programs in terms of secured employment. Of those students contacted who completed a secondary CTE program, 36.7 percent were employed in a job related to their training; 2.0 percent were employed in a job unrelated to their training, and 0.9 percent were unemployed. An additional 59.8 percent of the students contacted indicated they were continuing their education and 0.7 percent were neither in school nor in the labor force (e.g., due to health status, by choice, etc.).



**Follow-up Status of Colorado  
2005 Respondent  
Secondary Education Program  
Completers. (N=36,529)**

The pie chart below reflects placement rates for those seeking employment. More than 97 percent of those seeking employment found a job, while the unemployment rate was 2.2 percent, considerably below the general youth (ages 16–19) 2005 unemployment rate of 16.6 percent in Colorado. Overall, 92.8 percent of those seeking employment were employed in jobs related to their training, compared to 88.7 percent for 2004 completers.



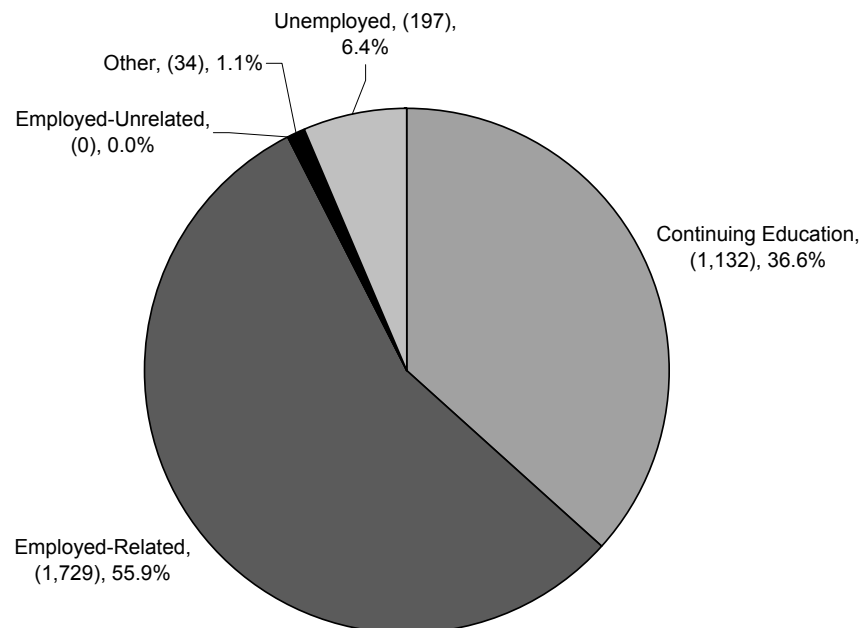
**Follow-up Status of Colorado  
2005 Respondent  
Secondary Education Program  
Completers Seeking Employment.  
(N=14,443)**



## SPECIAL PROGRAMS

SPECIAL PROGRAMS are designed to provide students with entry-level job skills to enter the Colorado labor force. For students who are disadvantaged, disabled and /or at-risk, two programs may be offered: ACE for at-risk students, or ACE/WES (Work Experience Study) for special education students. These hybrid programs combine academic and career assessments, classroom instruction and work-site training to accommodate student needs. The classroom instruction covers academic standards with a career emphasis. Students are placed on the job under a training plan agreement with student, employer, parent and teacher. Of those ACE students contacted, 90% of those seeking employment had found a job. One hundred percent of employed completers of ACE programs are considered employed-related to training regardless of the type of employment.

	2003-04	2004-05	2005-06
Enrollment	6,633.00	6,733.00	6,192.00
Completers	3,447.00	3,824.00	3,650.00
FTE Enrollment	1,249.04	1,083.30	1,125.59
Number of Programs	130	117	111
Total Cost of Programs	\$9,959,048	\$9,836,592	\$10,677,942
Cost per FTE	\$7,973	\$9,080	\$9,487



***Follow-up Status of Colorado  
2005 Respondent Secondary  
Special Programs Completers.  
(N=3,092)***

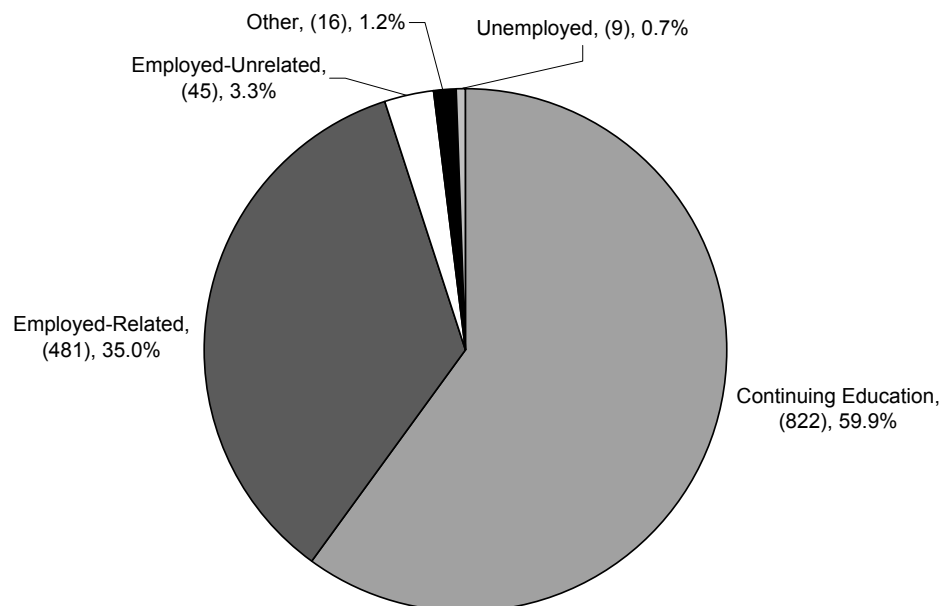


## AGRICULTURE

AGRICULTURE EDUCATION consists of training in agriculture occupations, including production agriculture, supplies and services, mechanics, ornamental horticulture, aquaculture, agribusiness, marketing, farm and ranch management, forestry, wildlife, and natural resources. Production agriculture and ornamental horticulture are the two primary programs offered at the secondary school level, while the other areas are integrated into these programs. Vocational agricultural education is usually a one to four-year program in Colorado high schools. Agribusiness (including inputs, farm and ranch production, and processing) generates 105,000 jobs, 4.4% of the state's total, and contributes \$15.9 billion annually to Colorado's economy. Colorado ranks 17th nationally in cash receipts from farm marketings, outranked in the west only by California. Ninety-eight percent of students contacted who were seeking employment found a job.

	2003-04	2004-05	2005-06
Enrollment	4,573.00	4,548.00	4,699.00
Completers	1,373.00	1,559.00	1,906.00
FTE Enrollment	786.75	731.60	833.02
Number of Programs	99	97	98
Total Cost of Programs	\$7,245,981	\$6,756,801	\$6,663,911
Cost per FTE	\$9,210	\$9,236	\$8,000

Program Title	No. of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Animal Health	1	42	9.96	\$126,580	\$10,025
Nat. Resource Management	2	49	21.49	\$157,754	\$6,722
Ornamental Horticulture/Landscaping	8	328	94.22	\$849,298	\$9,799
Production Agriculture	86	4,242	699.14	\$5,443,385	\$9,221
Wildlife and Wildlands Management	1	38	8.21	\$86,894	\$8,986



**Follow-up Status of Colorado 2005  
Respondent Secondary Agricultural  
Program Completers. (N=1,373)**



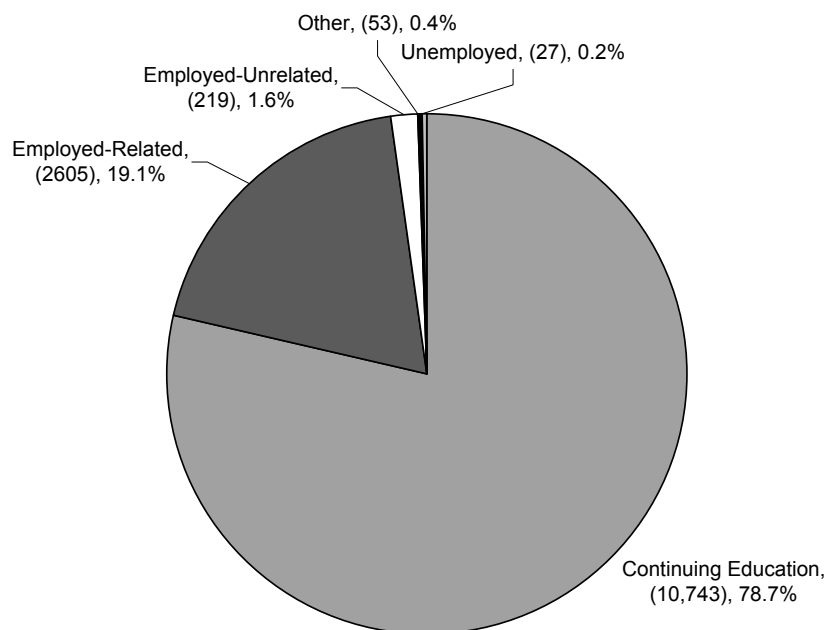


## BUSINESS

BUSINESS EDUCATION is the largest career and technical program area in Colorado with consistently high enrollments in the areas of office administration, accounting, business technology, and management. This area also encompasses educational partnerships with Oracle, Microsoft, CISCO, and Sun Microsystems. Business provides a multiple of occupational pathways including accounting, web development, computer information, entrepreneurship, desktop publishing, and management. For all business education programs, 99 percent of students contacted who were seeking employment found a job.

	2003-04	2004-05	2005-06
Enrollment	43,166.00	43,829.00	44,502.00
Completers	12,820.00	15,969.00	16,435.00
FTE Enrollment	4,055.60	3,872.92	4,095.27
Number of Programs	288	273	264
Total Cost of Programs	\$22,252,928	\$21,391,020	\$21,860,234
Cost per FTE	\$5,487	\$5,523	\$5,338

*Business program costs and enrollments are reported under the Business Education Core, beginning 1992-93.*



***Follow-up Status of Colorado  
2005 Respondent Secondary  
Business Program Completers.  
(N=13,647)***

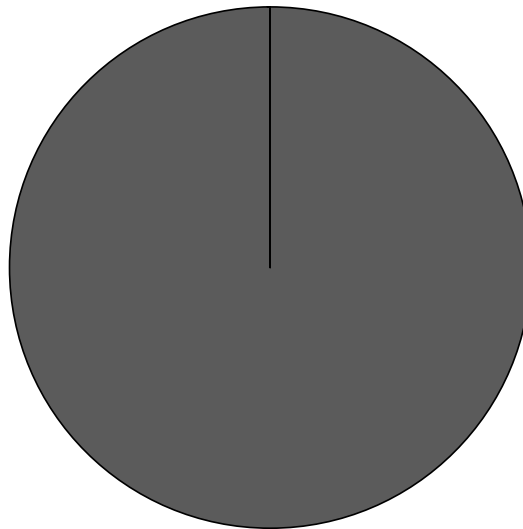


## FAMILY AND CONSUMER SCIENCES EDUCATION

The FAMILY AND CONSUMER SCIENCES EDUCATION program is designed to equip students with entry level skills needed for balancing work and family. Instruction focuses on: life management skills, relationships, child and adolescent development, nutrition and wellness, and teen health. One hundred percent of completers of the program are placed related to training and have met the objectives of problem-solving and decision-making skills which contribute to a healthy life style and success as a member of society.

	2003-04	2004-05	2005-06
Enrollment	13,667.00	13,332.00	14,104.00
Completers	4,749.00	4,740.00	4,076.00
FTE Enrollment	1,165.77	1,023.56	1,108.88
Number of Programs	155	149	148
Total Cost of Programs	\$6,256,391	\$6,088,348	\$5,996,758
Cost per FTE	\$5,367	\$5,948	\$5,408

Employed-Related (Using Family and Consumer Sciences Core Skills), (4,703), 100%



***Follow-up Status of Colorado 2005  
Respondent Secondary Family and  
Consumer Sciences Education Pro-  
gram Completers. (N=4,703)***

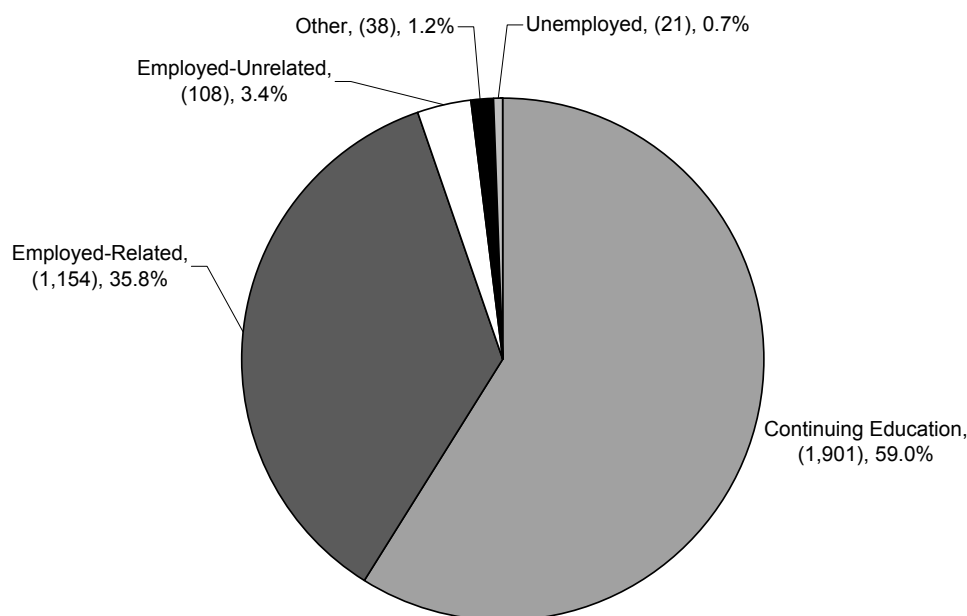


## **FAMILY AND CONSUMER SCIENCES RELATED OCCUPATIONS INCLUDING: CULINARY ARTS, EARLY CHILDHOOD EDUCATION AND INTERIOR DESIGN**

FAMILY AND CONSUMER SCIENCE RELATED OCCUPATIONS prepare students for entry-level employment in careers working with children ages birth through eight, all phases of the food industry, interior design, fashion design and teaching. Inherent to Family and Consumer Sciences is the commitment to stay abreast of the advancements of technology so that the skills being taught are relevant in today's world. Population growth, rising incomes, and more leisure time have contributed to a growing demand for human-service oriented professions. The proportion of students contacted who are placed in jobs related to their training in the occupational programs is 36 percent. With the increase in the number of women entering the workforce or heading single parent households, the demand for child care services has increased. Of those contacted who were seeking employment, 98 percent found jobs.

	2003-04	2004-05	2005-06
Enrollment	7,394.00	7,820.00	8,876.00
Completers	3,486.00	3,764.00	3,517.00
FTE Enrollment	900.60	807.77	963.84
Number of Programs	178	183	197
Total Cost of Programs	\$5,596,357	\$5,510,426	\$6,640,728
Cost per FTE	\$6,214	\$6,822	\$6,890

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Catering	31	2,015	179.57	\$879,497	\$4,898
Culinary Arts	9	461	115.47	\$855,115	\$7,406
Food Management					
ProStart	28	773	94.13	\$915,408	\$9,725
Food Science / Nutrition	15	1,671	137.63	\$509,964	\$3,705
Early Childhood Education	30	958	118.52	\$1,147,813	\$9,685
Fashion Design	6	367	36.46	\$168,394	\$4,619
Interior Design	30	1,406	113.17	\$758,311	\$6,701
Teacher Cadet	25	309	49.67	\$531,547	\$10,702
World of Work	23	916	119.22	\$874,679	\$7,337



***Follow-up Status of Colorado 2005  
Respondent Secondary Family and  
Consumer Sciences Occupations  
Program Completers. (N=3,222)***



## HEALTH OCCUPATIONS AND CRIMINAL JUSTICE

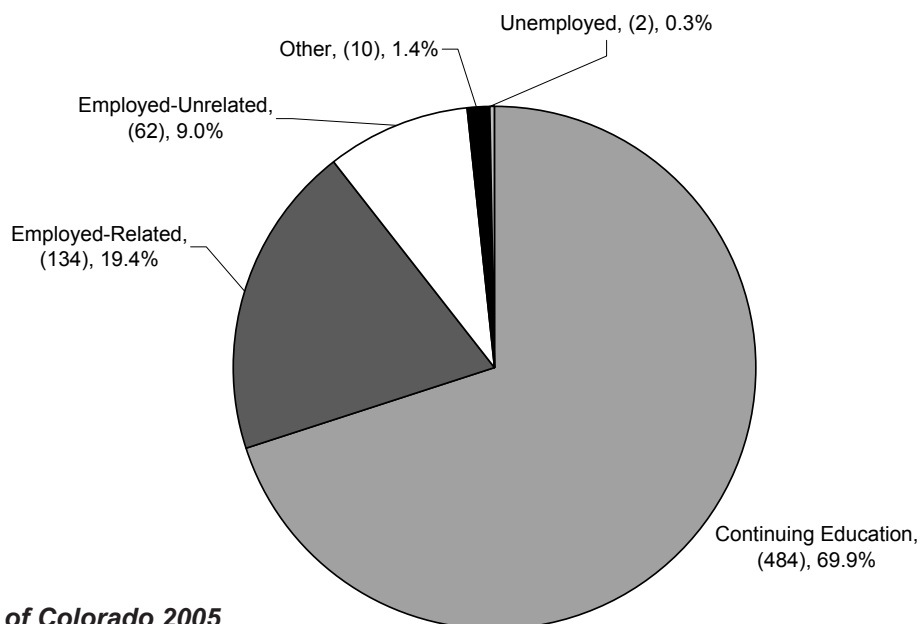
Fast, fierce competition for managed care contracts, reimbursement cuts and pressure to maximize efficiency and reduce costs have led health care agencies to reorganize patient services, lower staffing levels and close departments. This situation coupled with a critical shortage of health care workers has led to predictions that health care jobs will go unfilled and patient care may suffer. The Colorado Department of Labor and Employment projects that almost one-half of the new jobs created during the next decade will be in the health services division of Colorado's economy.

Health Occupations programs in Colorado, including Med-Prep, continue to provide students with the principles and skills common to any health occupation with options for students to pursue education and training in nurse aide, physical therapist aide, rehabilitation aid, dental aid, occupational therapy aid, medical office aide and others. Med-Prep completers are immediately employable. Ninety-nine percent of health occupations graduates who were contacted and were seeking employment found a job. Med-Prep appeals to minorities and men, as well as the traditional holders of health-related jobs, women.

Health care teams continue to consist of multi-skilled workers. Cross-training among team members is emphasized and valued. The increased use of out-patient facilities, home care, and community clinics has changed the way health care is delivered. Health occupations education programs continue to incorporate these changes, ensuring that graduates are capable of joining the workforce as immediate contributors.

	2003-04	2004-05	2005-06
Enrollment	1,341.00	1,466.00	1,430.00
Completers	823.00	928.00	946.00
FTE Enrollment	313.02	320.00	406.47
Number of Programs	31	32	29
Total Cost of Programs	\$2,263,550	\$2,401,690	\$2,926,540
Cost per FTE	\$7,231	\$7,505	\$7,200

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Fitness	2	99	22.50	\$127,600	\$5,671
Criminal Justice	3	177	64.52	\$404,723	\$6,273
Dental Assistant	1	32	24.86	\$107,546	\$4,326
Dental Services	1	20	6.76	\$16,349	\$2,418
Med-Prep	21	1009	287.69	\$2,269,594	\$7,889
Sign Language Interpreter	1	93	0.14	728	5200



**Follow-up Status of Colorado 2005  
Respondent Secondary Health  
Occupations and Criminal Justice  
Program Completers. (N=692)**

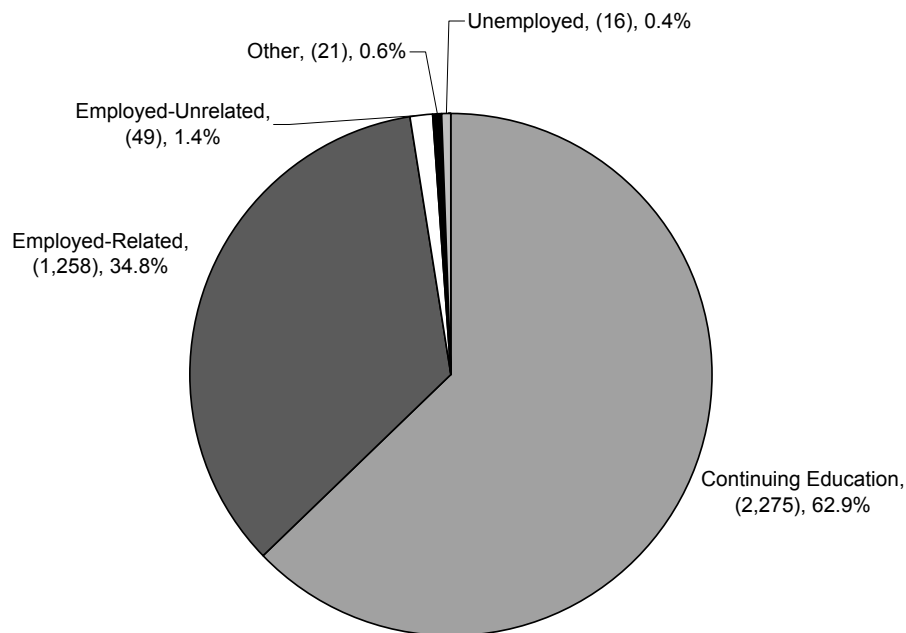


## MARKETING

MARKETING EDUCATION is a cooperative career and technical education program in which schools and employers combine to develop competent workers in marketing executed through the marketing functions of product, pricing, distribution, promotion and marketing research. Marketing Education programs are designed to teach marketing concepts and skills as well as the underlying business foundations required for the understanding and development of marketing. Marketing Education is defined by the National Marketing Education Standards (which make up the curriculum framework) and their corresponding performance indicators. The program offers opportunities to gain first-hand experience in fashion merchandising, advertising, general marketing, finance and credit, travel and tourism, transportation, distribution, sports and entertainment, full and quick service restaurants, multi media and technical sales, and international marketing. The more diverse opportunities are in the urban areas but the job demand for marketing occupations is statewide. This career and technical education program is vital to Colorado's wholesale, retail, e-commerce and service-based economy. Of those students contacted who were seeking employment, 97 percent found a job.

	2003-04	2004-05	2005-06
Enrollment	8,854.00	8,567.00	8,641.00
Completers	3,515.00	4,053.00	4,194.00
FTE Enrollment	965.94	839.16	831.70
Number of Programs	95	90	87
Total Cost of Programs	\$5,754,637	\$6,020,906	\$5,325,473
Cost per FTE	\$5,958	\$7,175	\$6,403

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Travel Services	3	105	23.06	\$150,737	\$6,537
Marketing and Distribution	84	8,536	808.64	\$5,174,736	\$6,399



**Follow-up Status of Colorado 2005  
Respondent Secondary Marketing  
Program Completers. (N=3,619)**

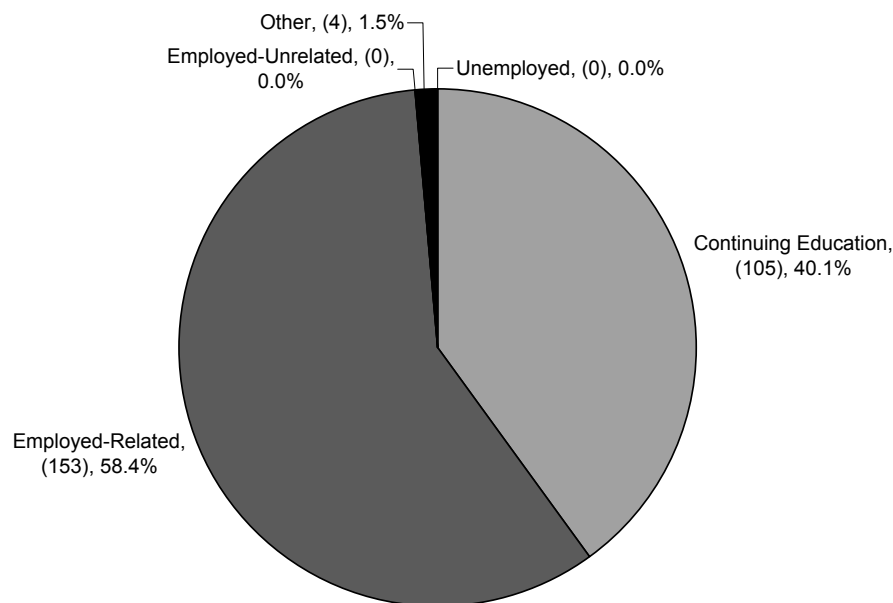




## MULTI-OCCUPATIONAL COOPERATIVE EDUCATION

MULTI-OCCUPATIONAL COOPERATIVE EDUCATION programs are cooperative career and technical education programs that offer training opportunities in a diversified range of occupations. The program is offered in small high schools that do not have sufficient enrollment to justify a specialized career and technical education program. The range of occupations served through this training vehicle may include agriculture, business, health, family and consumer sciences, marketing, technical, and trades and industry. Because the program is cooperative in nature, it is responsive to the local economy and job environment of the local area. One hundred percent of completers of the program are considered employed-related regardless of the type of employment.

	2003-04	2004-05	2005-06
Enrollment	318.00	373.00	327.00
Completers	229.00	274.00	264.00
FTE Enrollment	42.75	45.11	47.30
Number of Programs	14	15	11
Total Cost of Programs	\$436,237	\$389,025	\$355,152
Cost per FTE	\$10,204	\$8,624	\$7,509



**Follow-up Status of Colorado  
2005 Respondent Secondary  
Multi-Occupational Program Completers.  
(N=262)**



## TECHNICAL

TECHNICAL EDUCATION programs provide training in an array of rapidly changing, high technology occupations. Technician education in computer-assisted drafting, electronics and graphic design are the areas of primary emphasis at the secondary level, but there are other programs offered in areas where there is occupational demand — such as instrumentation technology, computer repair and maintenance, and engineering related technology. These programs support Colorado's high technology industry development. The percentage of technical program completers who are employed related to their training is relatively low (11.3%) because a high proportion of the students enrolled in these programs continue their education at the postsecondary level. Students contacted in technical education programs who were seeking employment had a 97 percent success rate in securing jobs.

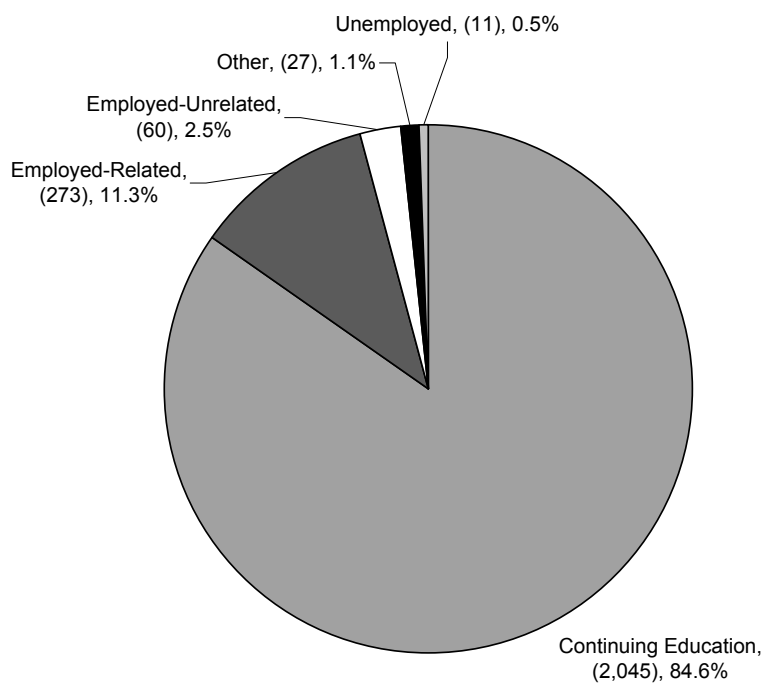
	2003-04	2004-05	2005-06
Enrollment	6,213.00	6,881.00	8,542.00
Completers	2,711.00	2,865.00	3,218.00
FTE Enrollment	799.23	739.39	973.02
Number of Programs	99	106	119
Total Cost of Programs	\$5,709,211	\$5,687,321	\$7,444,565
Cost per FTE	\$7,143	\$7,692	\$7,651

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Communications Technology	11	751	116.98	\$844,962	\$7,223
Drafting & Design Technology	46	2,180	214.81	\$1,522,055	\$7,086
Electronic Technology	5	182	60.42	\$565,015	\$9,351
Electrical/Engineering Technology	25	2,770	313.87	\$2,756,031	\$8,781
Mechanical Technology	1	72	19.45	\$148,405	\$7,630
Educational/ Instructional Media	1	55	16.89	\$114,795	\$6,797
Film/Video & Photographic Arts	3	116	22.59	\$199,595	\$8,836
Industrial Production	10	301	30.89	\$205,668	\$6,658
Environmental	1	86	14.97	\$96,452	\$6,443
Theatre Technology	1	16	3.82	\$54,321	\$14,220
Computer Engineering Technology	9	1372	111.13	\$652,079	\$5,868
Technology Ed/ Industrial Arts	6	641	47.2	\$285,187	\$6,042



## TECHNICAL

*Follow-up Status of Colorado  
2005 Respondent Secondary Technical  
Education Program Completers. (N=2,416)*





## TRADES AND INDUSTRY

TRADES AND INDUSTRIAL EDUCATION has the most diversified program base, offering a broad spectrum of programs tailored to the needs of students and industry. Students strengthen their academic abilities, develop manipulative skills, acquire technical knowledge, learn proper safety practices, and utilize facilities and equipment comparable to those in the work place. The programs emphasize realistic, applied education that parallels industry standards and technological advances. Since trade and industrial education cuts across many sectors of Colorado's economy, it is vital to the overall economic development of the state and provides career and technical students with a significant advantage in obtaining entry-level employment. Changes in the workplace demand changes in educational programs and Colorado's trade and industrial education programs are changing to prepare their graduates for the new work-place. Ninety-seven percent of the trades and industrial students contacted who were seeking employment found jobs.

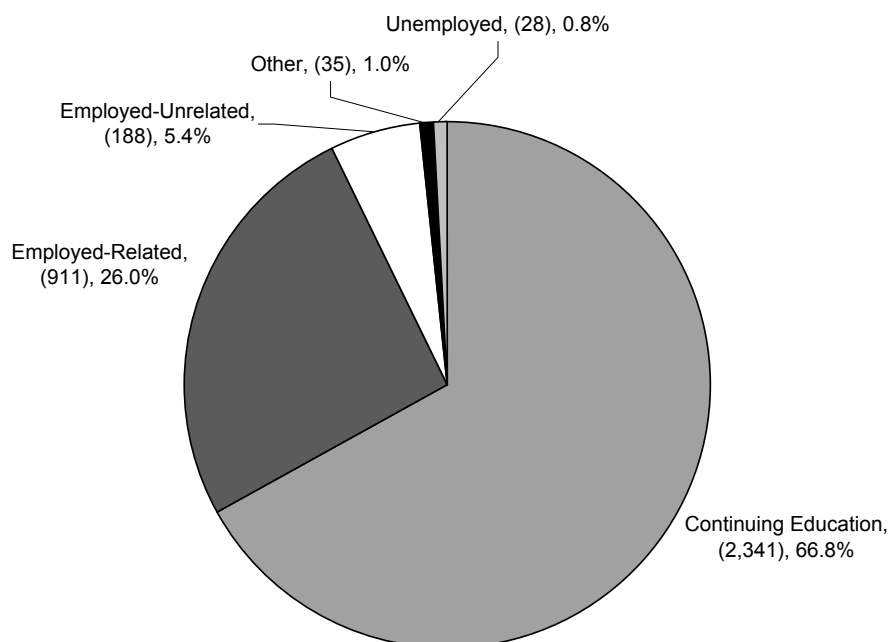
	2003-04	2004-05	2005-06
Enrollment	8,753.00	9,556.00	9,049.00
Completers	3,508.00	4,301.00	4,172.00
FTE Enrollment	1,626.24	1,794.40	1,952.01
Number of Programs	149	164	160
Total Cost of Programs	\$11,220,417	\$12,736,812	\$14,038,880
Cost per FTE	\$6,900	\$7,098	\$7,192

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Auto Body & Repair	6	350	139.21	\$924,995	\$6,645
Auto Mechanics	37	1,975	522.57	\$3,861,226	\$7,389
Barbering/Hairstylist	1	6	2.83	\$5,731	\$2,025
Cabinetmaking	3	128	19.08	\$200,117	\$10,488
Commercial Art	6	335	150.96	\$1,100,919	\$7,293
Commercial Photography	2	90	20.19	\$160,524	\$7,951
Construction Trades	53	3,394	395.39	\$2,730,347	\$6,905
Cosmetologist	8	451	234.42	\$1,453,549	\$6,201
Design and Visual Communication	11	967	147.57	\$1,070,333	\$7,253
Diesel Mechanics	2	25	17.27	\$106,205	\$6,150
Electrician	1	10	6.98	\$41,777	\$5,985
Graphic Printing & Communications	2	43	8.84	\$210,577	\$23,821
Graphics/ Printing, Other	1	46	12.95	\$233,656	\$18,043
Heating & Air Conditioning	1	10	5.57	\$46,781	\$8,399
Industrial Equip. Maintenance & Repair	2	54	6.54	\$58,840	\$8,997
Machine Shop	4	292	57.89	\$440,862	\$7,616
Machinists Technology	1	85	24.69	\$211,929	\$8,584
Masonry/ Bricklaying	1	32	14.62	\$60,834	\$4,161
Small Engine Repair	1	6	5.69	\$43,937	\$7,722
Welding	17	750	158.75	\$1,075,741	\$6,776



## TRADES AND INDUSTRY

*Follow-up Status of Colorado 2005  
Respondent Secondary Trades and  
Industry Program Completers. (N=3,503)*







## APPROPRIATIONS

The Appropriations for the Colorado Vocational Act reflect moderate increases in the fiscal years since 1971-72. However, the increases in appropriations have not kept pace with costs of operating CTE programs. In 1971-72, CVA funding covered 58.24% of CTE program costs across the state compared to 2005-06 where CVA funding covered only 21.41% of CTE program costs.

FISCAL YEAR	ACTUAL COST	STATE SUPPORT FUNDING	PERCENTAGE
1971-72	\$11,160,434	\$ 6,500,000	58.24%
1972-73	\$13,391,725	\$ 6,500,000	48.54%
1973-74	\$16,788,834	\$ 8,600,000	51.22%
1974-75	\$20,475,475	\$ 9,620,000	46.98%
1975-76	\$23,132,088	\$ 9,538,200	41.23%
1976-77	\$26,289,575	\$10,303,696	39.19%
1977-78	\$27,784,458	\$11,004,354	39.61%
1978-79	\$29,677,929	\$10,997,128	37.05%
1979-80	\$29,965,435	\$11,766,926	39.27%
1980-81	\$32,651,304	\$11,966,122	36.65%
1981-82	\$35,808,522	\$12,768,357	35.66%
1982-83	\$37,817,246	\$12,788,295	33.79%
1983-84	\$40,822,618	\$13,560,640	34.01%
1984-85	\$41,209,437	\$14,053,569	34.10%
1985-86	\$44,070,066	\$14,323,398	32.50%
1986-87	\$46,404,834	\$14,279,071	30.76%
1987-88	\$49,837,325	\$14,565,338	29.23%
1988-89	\$49,897,054	\$14,399,570 <sup>1</sup>	28.86%
1989-90	\$50,834,645	\$14,266,581 <sup>2</sup>	28.12%
1990-91	\$53,568,906	\$14,274,855 <sup>2</sup>	26.65%
1991-92	\$55,382,927	\$14,845,849 <sup>2</sup>	26.81%
1992-93	\$54,280,649	\$15,142,766 <sup>2</sup>	27.90%
1993-94	\$52,859,708	\$15,142,766 <sup>2</sup>	28.65%
1994-95	\$54,338,408	\$15,142,766 <sup>2</sup>	27.87%
1995-96	\$57,871,793	\$15,142,766 <sup>2</sup>	26.17%
1996-97	\$59,837,888	\$15,793,905 <sup>2</sup>	26.39%
1997-98	\$62,216,667	\$16,346,692 <sup>2</sup>	26.27%
1998-99	\$62,255,071	\$16,886,133 <sup>2</sup>	27.12%
1999-00	\$68,181,856	\$17,291,400 <sup>2</sup>	25.36%
2000-01	\$71,311,685	\$17,792,850 <sup>2</sup>	24.95%
2001-02	\$79,028,269	\$18,377,660 <sup>2</sup>	23.25%
2002-03	\$82,139,155	\$19,374,279	23.10%
2003-04	\$86,604,671	\$19,742,390	22.80%
2004-05	\$93,788,905	\$19,959,556	21.28%
2005-06	\$93,412,200	\$19,996,048	21.41%

<sup>1</sup>

Excludes \$502,846 which was transferred to Colorado Department of Education for transportation expenses.

<sup>2</sup>Includes \$299,663 in 1989-90, \$209,803 in 1990-91, \$258,329 in 1991-92, \$211,246 in 1992-93, \$293,513 in 1993-94, \$279,705 in 1994-95, \$226,273 in 1995-96, \$131,500 in 1996-97, \$20,185 in 1997-98, \$15,905 in 1998-99, \$15,465 in 1999-00, \$37,085 in 2000-01, and \$10,377 in 2001-02 which was transferred to Colorado Department of Education for School Finance Act buyouts.



## **ABOUT THIS PUBLICATION**

All data reported in this document pertain to Colorado Vocational Act programs only.

### **Sources:**

Colorado Community College System Office  
2002-03, 2003-04, 2004-05 Financial System  
2002-03, 2003-04, 2004-05 Student Accounting System  
2002-03, 2003-04, 2004-05 Follow-up/Placement Report  
2003, 2004, 2005 Colorado Vocational Act Report

Resource Analysis,  
Colorado Department of Agriculture

Planning and Evaluation Division,  
Colorado Department of Education

Division of Employment Statistics,  
Colorado Department of Labor and Employment

U.S. Department of Labor,  
Washington, D.C.

U.S. Department of Commerce,  
Washington, D.C.

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# Mission Statement

The Colorado State Board for Community Colleges and Occupational Education (SBCCOE) provides leadership for Career and Technical Education (CTE) for Colorado at the secondary and postsecondary levels.

It supports and leads the development and delivery of curriculum, best practices in realizing student success, and responds rapidly and effectively to workforce development needs in Colorado.



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