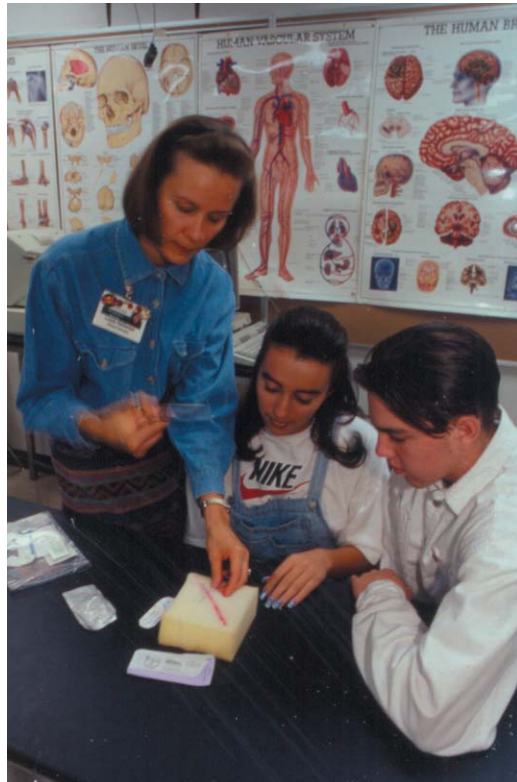


# Colorado Vocational Act



2005  
Thirty-Fifth Annual Report



COLORADO COMMUNITY  
COLLEGE SYSTEM

# Colorado Vocational Act 2005

COLORADO COMMUNITY COLLEGE SYSTEM



## **STATE BOARD FOR COMMUNITY COLLEGES AND OCCUPATIONAL EDUCATION**

### **Board Members**

**Tamra J. Ward**, *Chair*

**Barbara McKellar**, *Vice Chair*

**Stephen A. Chapman**

**Wanda Cousar**

**Patricia A. Erjavec**

**Jennifer Hopkins**

**Preslano Montoya**

**Ralph J. Nagel**

**David C. Taylor**

### **Non-voting Members**

**David Strungis**, *SSAC Representative*

## **COLORADO COMMUNITY COLLEGE SENIOR STAFF**

**Dr. Nancy McCallin**, *System President*

**Barbara McDonnell**, *Executive Vice President*

**Marilyn Golden**, *Executive Vice President for Administration and Finance*

**Dr. Linda Bowman**, *Vice President of Academic and Student Affairs*

**Pat Sarkar**, *Chief Information Officer*

**Kristin Corash**, *Director of Strategic Planning*

**Cindy Hesse**, *Manager of Human Resources*

**Jennifer Sobanet**, *Budget Director*

## **COLORADO COMMUNITY COLLEGE SYSTEM**

### **Presidents**

**Dr. Berton L. Glandon**, *Arapahoe Community College*

**Bob Rizzuto**, *Interim Chief Administrative Officer, Colorado Northwestern Community College*

**Dr. Linda Bowman**, *Community College of Aurora*

**Dr. Christine Johnson**, *Community College of Denver*

**Dr. Janet Gullickson**, *Front Range Community College*

**Dr. David Smith**, *Interim Chief Administrative Officer, Lamar Community College*

**Dr. Michele Haney**, *Morgan Community College*

**Judy Giacomini**, *Interim Chief Administrative Officer, Northeastern Junior College*

**James Rizzuto**, *Otero Junior College*

**Joseph A. Garcia**, *Pikes Peak Community College*

**Dr. Michael Davis**, *Pueblo Community College*

**Cliff Richardson**, *Red Rocks Community College*

**Ruth Ann Woods**, *Interim Chief Administrative Officer, Trinidad State Junior College*

## 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 2004-2005 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 \$19,959,556 in Fiscal Year 2004-2005 to assist more than 160 school districts in funding 1226 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 escrow credit 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 2004-2005, total secondary enrollment in state approved career and technical education programs was just over 103,000. These enrollments represent 37% of the total 9-12 grade secondary enrollment in Colorado. Ninety-four percent of students contacted who completed CTE programs in 2003-2004 were employed in jobs directly related to their career and technical training and/or continuing their education.

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-fifth 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 2004–05 school year, the General Assembly appropriated \$19,959,556 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 73.22 percent of its entitlement.

### COLORADO CTE FACTS

In Colorado high schools during FY 04–05, there were just over 103,000 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 04–05 under the Colorado Vocational Act was 1,226.

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.

Statistics for 04–05 Colorado Vocational Act programs indicate that 94 percent of secondary career and technical education graduates either obtained a job related to their training and/or continued their education.

Of the just over 103,000 enrollments in CVA approved programs, 32.41 percent were identified as disadvantaged and 9.93 percent as disabled.

Minority students represent 31.46 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 “escrow credit” 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 will 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 “escrow credit” 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.

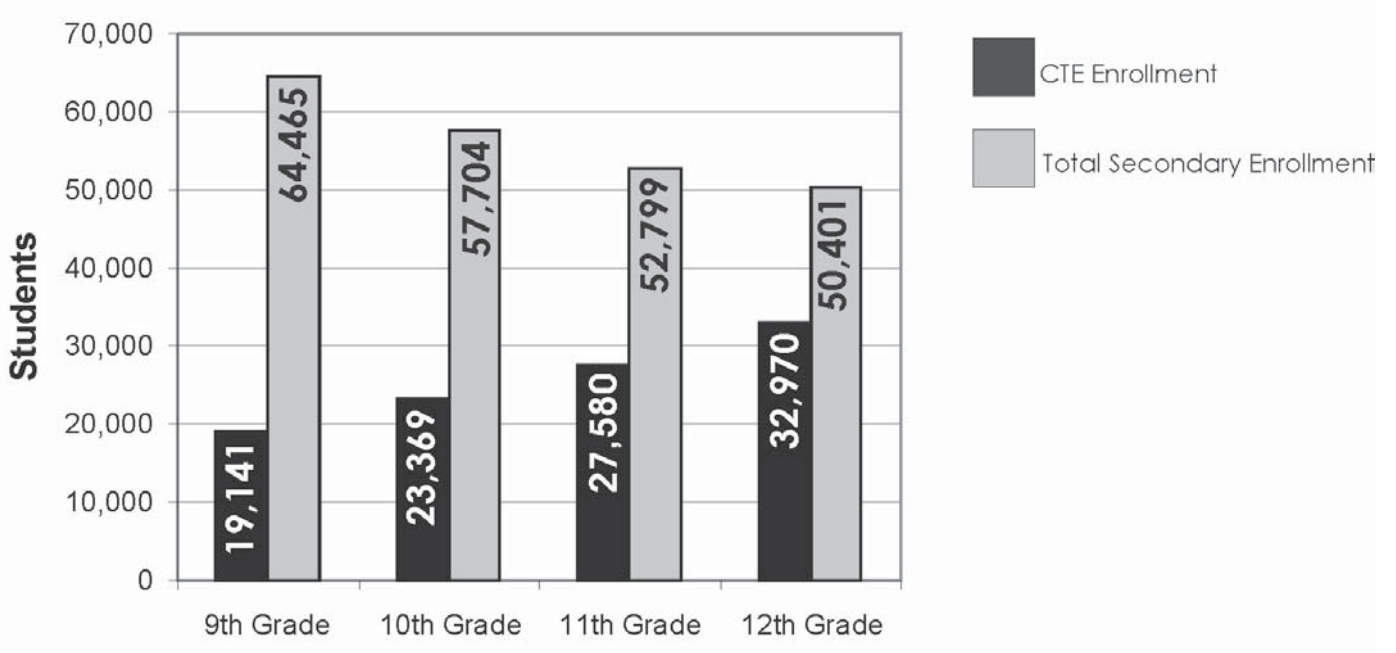
## ENROLLMENT AND PLACEMENT TRENDS

For FY 2005, total secondary CTE enrollments were 103,105 (duplicated headcount). These enrollments represent 82,145 students (unduplicated headcount)—or 37 percent of the total 9–12 grade secondary enrollment in the state (225,369). 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 2005 “Student Follow-Up Study of 2004 Completers”, 88.7 percent of those students contacted who were seeking jobs obtained positions in fields related to their CTE training. The comparable figures for 2003 and 2004 are 87.9 percent and 87.3 percent, respectively.

CTE Program Area	2002-03		2003-04		2004-05	
	Enrollment	Percent Employed	Enrollment	Percent Employed	Enrollment	Percent Employed
Special Programs	6,471	92%	6,633	92%	6,733	92%
Agriculture Education	4,508	95%	4,573	97%	4,548	98%
Business Education	43,312	98%	43,166	96%	43,829	97%
Family and Consumer Sciences Education	14,089	100%	13,667	100%	13,332	100%
Family and Consumer Sciences Occupations	6,081	97%	7,394	97%	7,820	98%
Health Occupations	1,165	94%	1,341	96%	1,466	98%
Marketing Education	8,288	98%	8,854	98%	8,567	96%
Multi-Occupational Cooperative Education	342	97%	318	98%	373	98%
Technical Education	5,603	92%	6,213	94%	6,881	93%
Trades and Industrial Education	8,165	95%	8,753	97%	9,556	94%
<b>Total Secondary CTE Enrollments</b>	<b>98,024</b>	<b>96%</b>	<b>100,912</b>	<b>97%</b>	<b>103,105</b>	<b>97%</b>
<b>Total Secondary (9-12) Enrollments</b>	<b>217,397</b>		<b>221,347</b>		<b>225,369</b>	

**2004-2005 Colorado Secondary CTE Enrollment by Grade\***



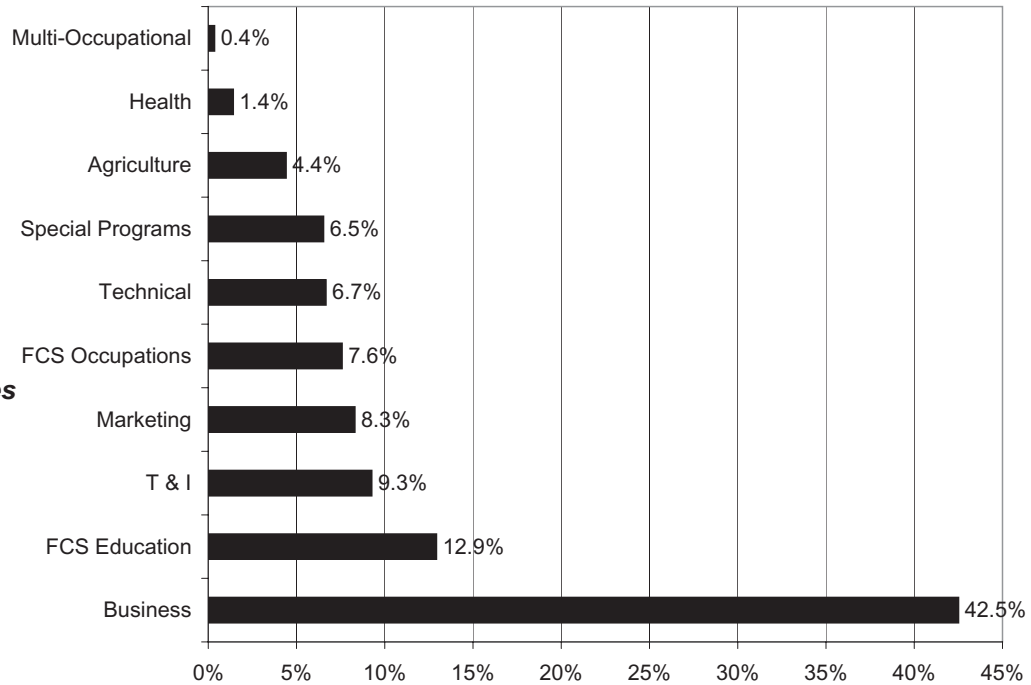
\*Graph does not include secondary CTE students in the “special” grade category.



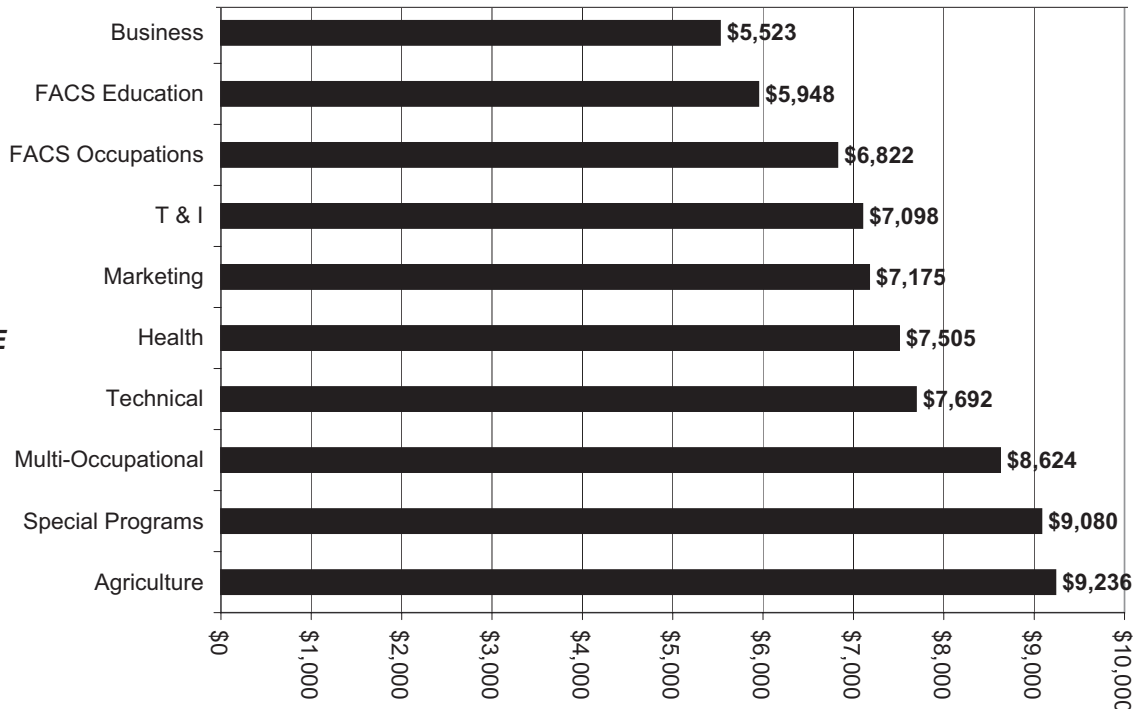
## ENROLLMENT AND COSTS BY PROGRAM AREA

The graphs below illustrate that 80.6% of all career and technical enrollment is concentrated in five program areas: Business, Family and Consumer Sciences Education, Trades and Industrial (T & I), Marketing, and Family and Consumer Sciences Occupations. Business is the program area with the lowest average full-time-equivalent cost, while Agriculture has the highest average cost.

**2004-05 Colorado Secondary CTE Enrollment Percentages by Program Area**



**2004-05 Colorado Secondary CTE Program Cost Per FTE by Program Area**



## ENROLLMENT AND FINANCIAL HIGHLIGHTS

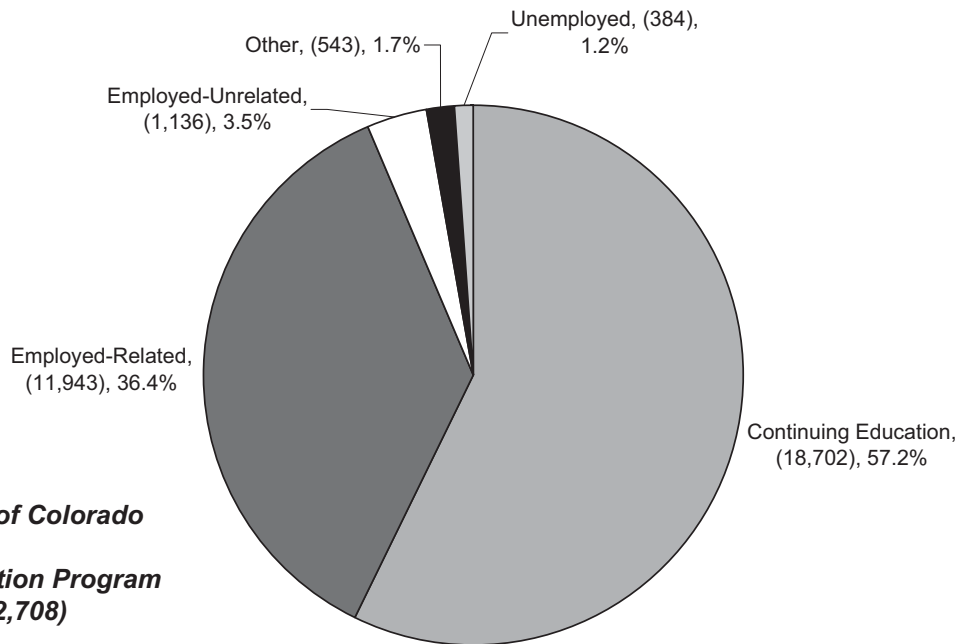
When FTE enrollment is considered for FY2005, three program areas account for nearly two-thirds (59.96%) of career and technical education enrollment: Business (34.40%), Trades and Industrial (15.94%), and Special Programs (9.62%).

CTE Program Area	Enrollment	FTE* Enrollment	Total Cost of Programs (\$)	Cost per FTE (\$)
Special Programs	6,733	1,083.30	\$9,836,592	\$9,080
Agriculture Education	4,548	731.60	\$6,756,801	\$9,236
Business Education	43,829	3,872.92	\$21,391,020	\$5,523
Family and Consumer Sciences Education	13,332	1,023.56	\$6,088,348	\$5,948
Family and Consumer Sciences Occupations	7,820	807.77	\$5,510,426	\$6,822
Health Occupations Education	1,466	320.00	\$2,401,690	\$7,505
Marketing Education	8,567	839.16	\$6,020,906	\$7,175
Multi-Occupational Cooperative Education	373	45.11	\$389,025	\$8,624
Technical Education	6,881	739.39	\$5,687,321	\$7,692
Trades and Industrial Education	9,556	1,794.40	\$12,736,812	\$7,098
<b>TOTAL</b>	<b>103,105</b>	<b>11,257.21</b>	<b>\$76,818,941</b>	<b>\$6,824</b>

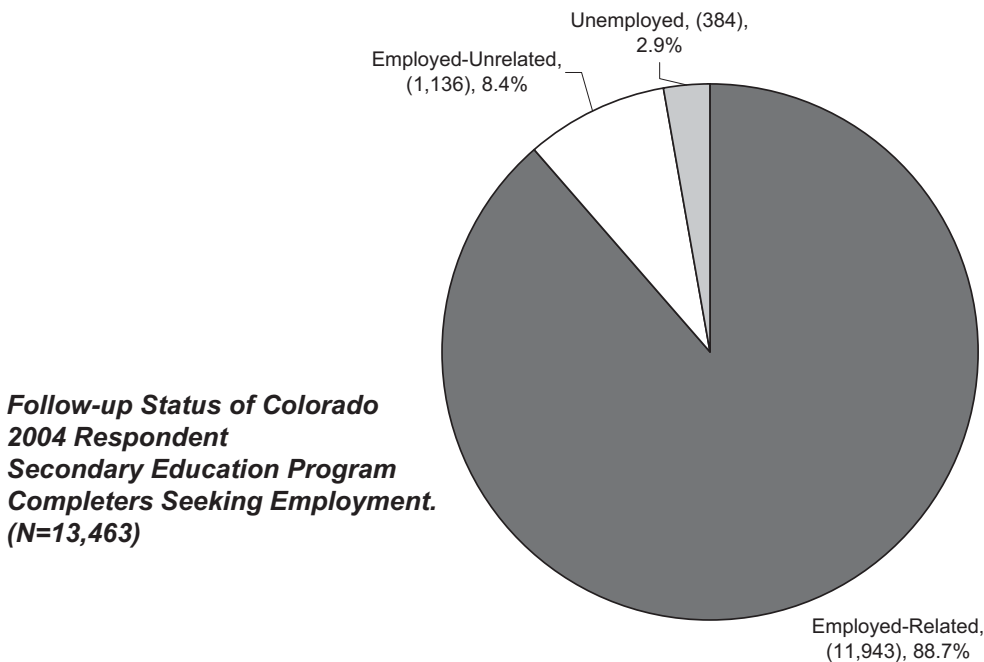
\* A full-time equivalent student (FTE) is one student attending six hours a day for 180 days.

### 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, 36.4 percent were employed in a job related to their training; 3.5 percent were employed in a job unrelated to their training, and 1.2 percent were unemployed. An additional 57.2 percent of the students contacted indicated they were continuing their education and 1.7 percent were neither in school nor in the labor force (e.g., due to health status, by choice, etc.).



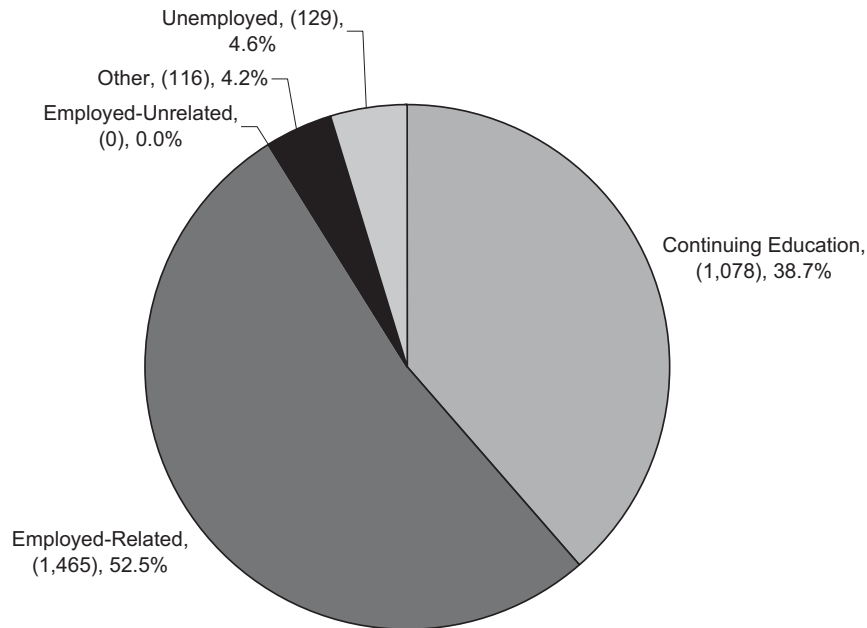
The pie chart below reflects placement rates for those seeking employment. More than 97 percent of those seeking employment found a job, while the unemployment rate was 2.9 percent, considerably below the general youth (ages 16–19) 2002 unemployment rate of 16.5 percent in Colorado. Overall, 88.7 percent of those seeking employment were employed in jobs related to their training, compared to 87.3 percent for 2003 completers.



**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, 92% 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.

	2002-03	2003-04	2004-05
Enrollment	6,471.00	6,633.00	6,733.00
Completers	3,183.00	3,447.00	3,824.00
FTE Enrollment	1,131.10	1,249.04	1,083.30
Number of Programs	142	130	117
Total Cost of Programs	\$8,561,296	\$9,959,048	\$9,836,592
Cost per FTE	\$7,569	\$7,973	\$9,080



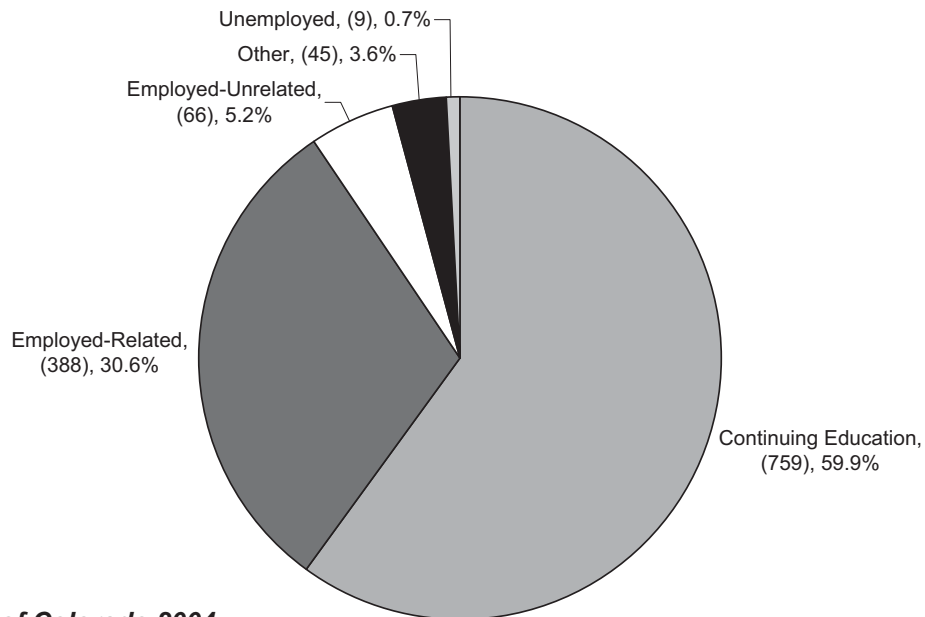
***Follow-up Status of Colorado 2004 Respondent Secondary Special Programs Completers. (N=2,788)***

## 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. Of the total high school CTE students, 4.4 percent are involved in vocational agricultural education. 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.

	2002-03	2003-04	2004-05
Enrollment	4,508.00	4,573.00	4,548.00
Completers	1,049.00	1,373.00	1,559.00
FTE Enrollment	797.18	786.75	731.60
Number of Programs	100	99	97
Total Cost of Programs	\$6,461,756	\$7,245,981	\$6,756,801
Cost per FTE	\$8,106	\$9,210	\$9,236

Program Title	No. of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Animal Health	1	38	12.15	\$121,801	\$10,025
Nat. Resource Management	2	38	16.27	\$109,333	\$6,722
Ornamental Horticulture/Landscaping	8	314	76.99	\$754,454	\$9,799
Production Agriculture	85	4,123	614.45	\$5,665,627	\$9,221
Wildlife and Wildlands Management	1	35	11.75	\$105,584	\$8,986



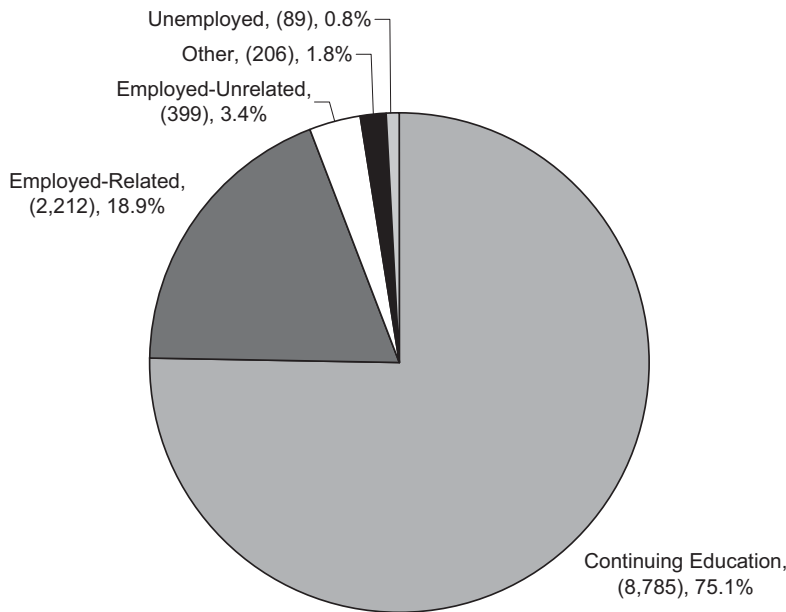
**Follow-up Status of Colorado 2004 Respondent Secondary Agricultural Program Completers. (N=1,267)**

**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, 97 percent of students contacted who were seeking employment found a job.

	2002-03	2003-04	2004-05
Enrollment	43,312.00	43,166.00	43,829.00
Completers	11,299.00	12,820.00	15,969.00
FTE Enrollment	3,977.23	4,055.60	3,872.92
Number of Programs	306	288	273
Total Cost of Programs	\$21,380,599	\$22,252,928	\$21,391,020
Cost per FTE	\$5,376	\$5,487	\$5,523

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



**Follow-up Status of Colorado 2004 Respondent Secondary Business Program Completers. (N=11,691)**

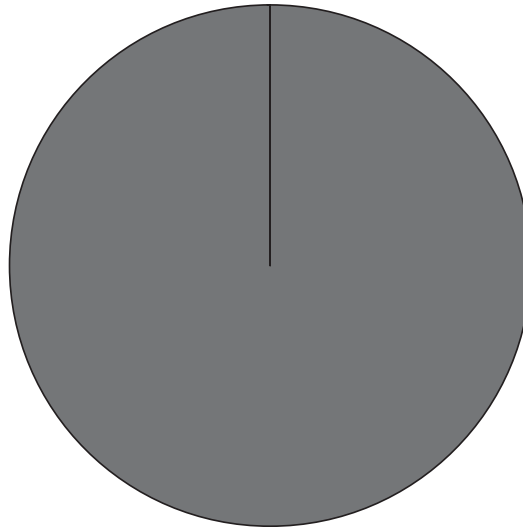


### FAMILY AND CONSUMER SCIENCES EDUCATION

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.

	2002-03	2003-04	2004-05
Enrollment	14,089.00	13,667.00	13,332.00
Completers	3,616.00	4,749.00	4,740.00
FTE Enrollment	1,118.17	1,165.77	1,023.56
Number of Programs	157	155	149
Total Cost of Programs	\$5,832,749	\$6,256,391	\$6,088,348
Cost per FTE	\$5,216	\$5,367	\$5,948

Employed-Related (Using Family and Consumer Sciences Core Skills), (4,510), 100%



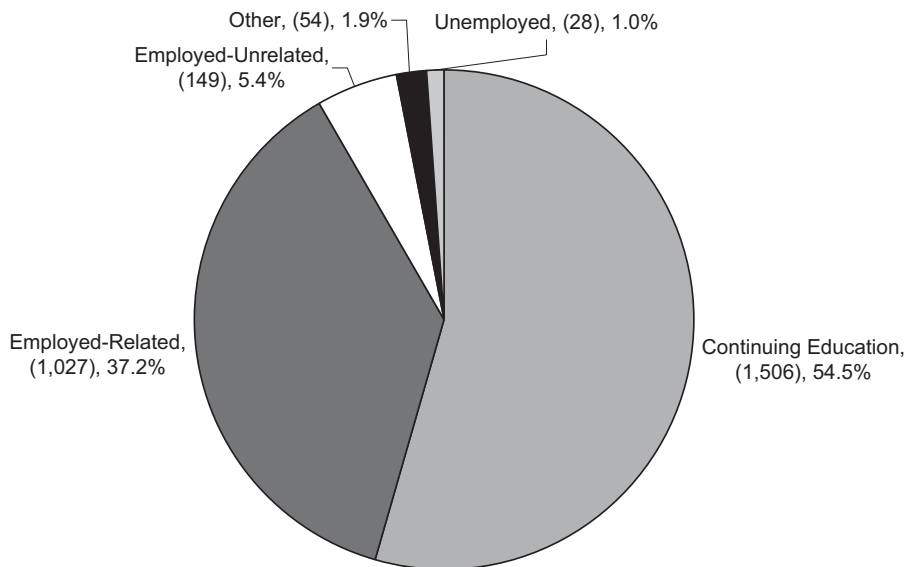
**Follow-up Status of Colorado 2004 Respondent Secondary Family and Consumer Sciences Education Program Completers. (N=4,510)**

**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 placed in jobs related to their training in the occupational programs is 37 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.

	2002-03	2003-04	2004-05
Enrollment	6,081.00	7,394.00	7,820.00
Completers	2,954.00	3,486.00	3,764.00
FTE Enrollment	635.10	900.60	807.77
Number of Programs	193	178	183
Total Cost of Programs	\$3,992,655	\$5,596,357	\$5,510,426
Cost per FTE	\$6,287	\$6,214	\$6,822

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Catering	27	1,674	150.28	\$706,403	\$4,701
Culinary Arts Food Management	8	423	109.53	\$867,354	\$7,919
ProStart	28	665	81.22	\$563,921	\$6,943
Food Science / Nutrition	15	1,267	114.20	\$463,138	\$4,055
Early Childhood Education	28	703	111.71	\$1,229,845	\$11,009
Fashion Design	2	87	14.94	\$81,720	\$5,470
Interior Design	32	1,526	103.84	\$535,853	\$5,160
Teacher Cadet	20	301	41.42	\$338,842	\$8,181
World of Work	23	1,174	80.62	\$723,350	\$8,972



**Follow-up Status of Colorado 2004 Respondent Secondary Family and Consumer Sciences Occupations Program Completers. (N=2,764)**



## HEALTH OCCUPATIONS AND CRIMINAL JUSTICE

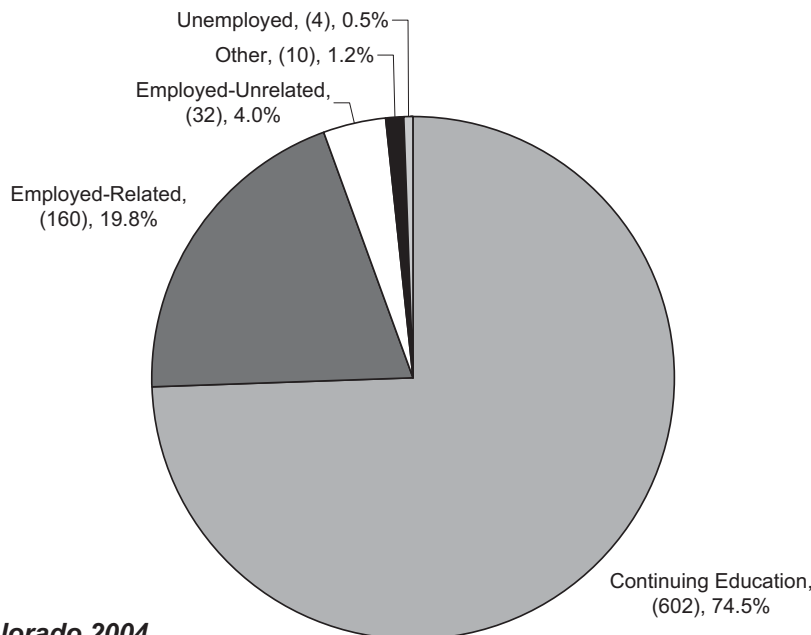
Fast, fierce competition for managed care contracts, reimbursement cuts and pressure to maximize efficiency and reduce costs have led health care agencies to reorganize patient services, lower staffing levels and close departments. This situation coupled with a critical shortage of health care workers 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-eight 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.

	2002-03	2003-04	2004-05
Enrollment	1,165.00	1,341.00	1,466.00
Completers	682.00	823.00	928.00
FTE Enrollment	259.59	313.02	320.00
Number of Programs	31	31	32
Total Cost of Programs	\$1,803,842	\$2,263,550	\$2,401,690
Cost per FTE	\$6,949	\$7,231	\$7,505

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Fitness	2	81	17.63	\$127,599	\$7,238
Criminal Justice	3	201	55.35	\$357,862	\$6,465
Dental Assistant	2	41	18.35	\$138,138	\$7,526
Dental Services	2	27	4.28	\$11,425	\$2,669
Med-Prep	22	998	224.38	\$1,766,666	\$7,874
Sign Language Interpreter	1	118	0	0	0



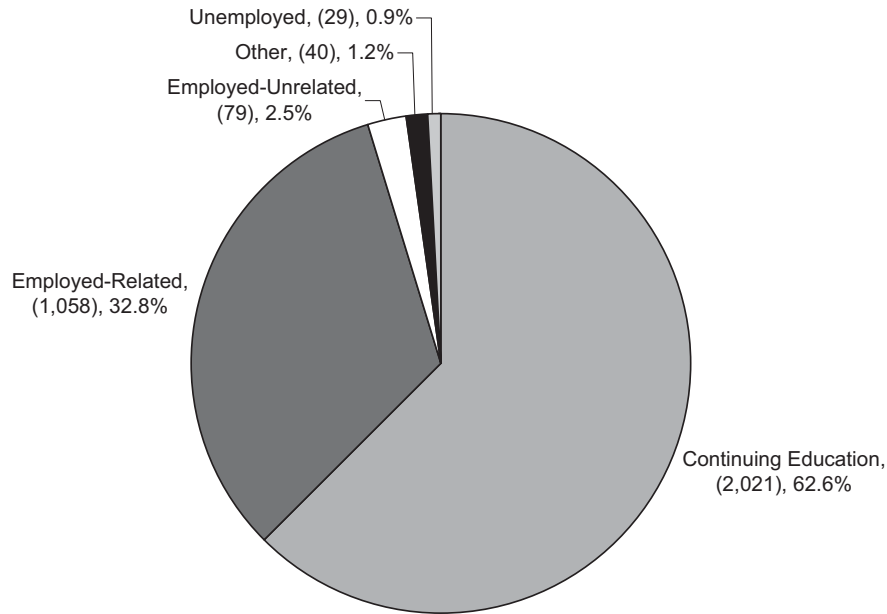
**Follow-up Status of Colorado 2004 Respondent Secondary Health Occupations and Criminal Justice Program Completers. (N=808)**

## 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, 96 percent found a job.

	2002-03	2003-04	2004-05
Enrollment	8,288.00	8,854.00	8,567.00
Completers	3,429.00	3,515.00	4,053.00
FTE Enrollment	919.87	965.94	839.16
Number of Programs	96	95	90
Total Cost of Programs	\$5,122,791	\$5,754,637	\$6,020,906
Cost per FTE	\$5,569	\$5,958	\$7,175

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Travel Services	3	102	22.05	\$119,352	\$5,413
Marketing and Distribution	87	8,465	817.11	\$5,901,553	\$7,222

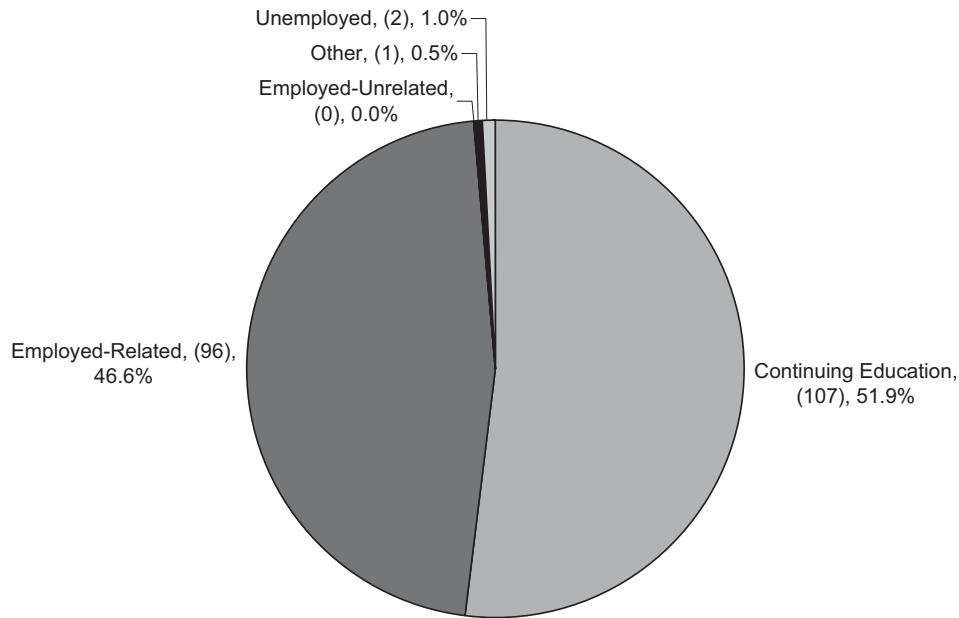


**Follow-up Status of Colorado 2004 Respondent Secondary Marketing Program Completers. (N=3,227)**

## 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. Ninety-eight percent of the multi-occupational students who were contacted and were seeking employment had found jobs. One hundred percent of completers of the program are considered employed-related regardless of the type of employment.

	2002-03	2003-04	2004-05
Enrollment	342.00	318.00	373.00
Completers	263.00	229.00	274.00
FTE Enrollment	56.71	42.75	45.11
Number of Programs	17	14	15
Total Cost of Programs	\$464,131	\$436,237	\$389,025
Cost per FTE	\$8,184	\$10,204	\$8,624



**Follow-up Status of Colorado  
2004 Respondent Secondary  
Multi-Occupational Program Completers.  
(N=206)**

## 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 (12.3%) 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 93 percent success rate in securing jobs.

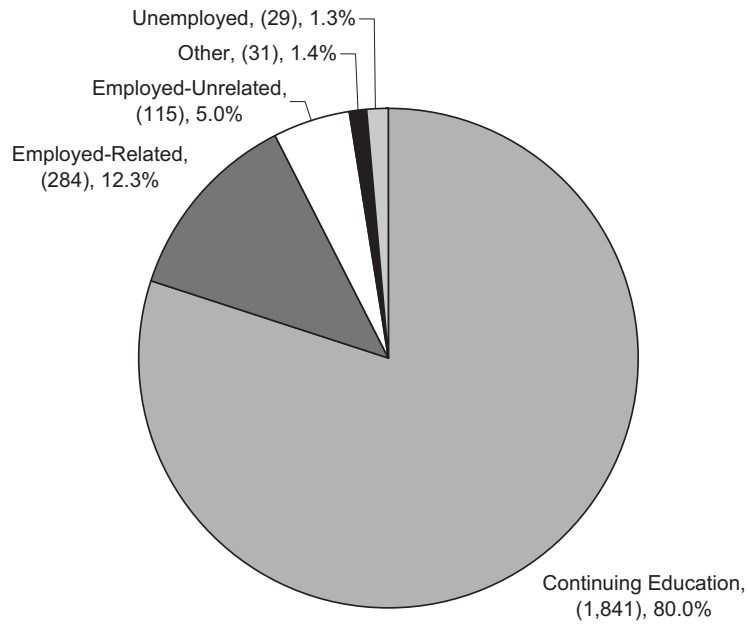
	2002-03	2003-04	2004-05
Enrollment	5,603.00	6,213.00	6,881.00
Completers	2,197.00	2,711.00	2,865.00
FTE Enrollment	564.15	799.23	739.39
Number of Programs	104	99	106
Total Cost of Programs	\$4,101,374	\$5,709,211	\$5,687,321
Cost per FTE	\$7,270	\$7,143	\$7,692

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Communications Technology	7	474	55.69	\$425,650	\$7,644
Drafting & Design Technology	43	1,669	207.24	\$1,542,848	\$7,445
Electronic Technology	2	82	21.27	\$113,761	\$5,349
Electrical/Engineering Technology	27	2,698	301.47	\$2,177,334	\$7,222
Audiovisual Communications Technology	1	17	3.33	\$23,590	\$7,080
Mechanical Technology	1	44	22.12	\$145,481	\$6,577
Educational/ Instructional Media	1	66	15.19	\$105,028	\$6,914
Film/Video & Photographic Arts	2	82	7.83	\$188,521	\$24,077
Industrial Production	10	706	33.80	\$316,609	\$9,367
Environmental	1	31	8.44	\$40,291	\$4,774
Theatre Technology	1	19	4.80	\$59,801	\$12,459
Computer Engineering Technology	6	570	30.77	\$261,391	\$8,495
Technology Ed/ Industrial Arts	4	423	27.44	\$287,015	\$10,460



## TECHNICAL

*Follow-up Status of Colorado  
2004 Respondent Secondary Technical  
Education Program Completers. (N=2,300)*



## 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-four percent of the trades and industrial students contacted who were seeking employment found jobs.

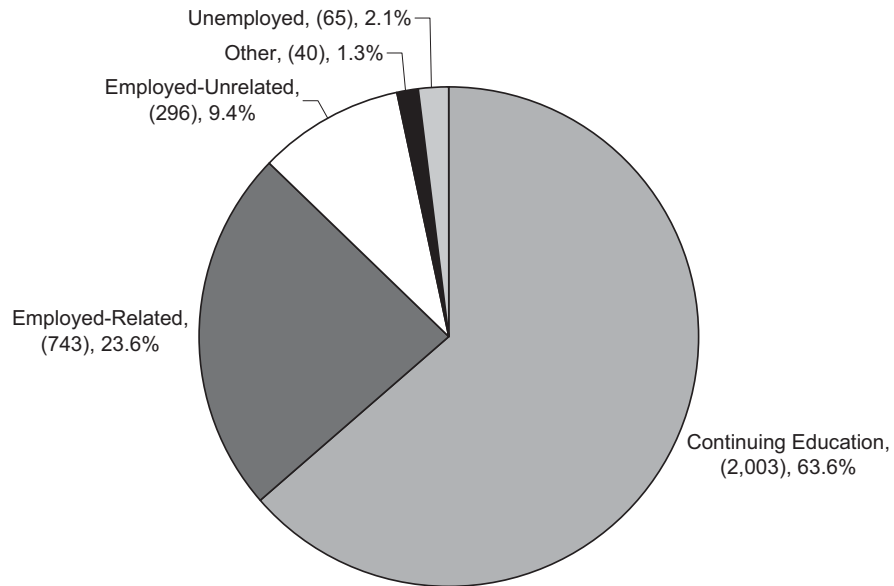
	2002-03	2003-04	2004-05
Enrollment	8,165.00	8,753.00	9,556.00
Completers	2,854.00	3,508.00	4,301.00
FTE Enrollment	1,451.00	1,626.24	1,794.40
Number of Programs	154	149	164
Total Cost of Programs	\$10,373,540	\$11,220,417	\$12,736,812
Cost per FTE	\$7,145	\$6,900	\$7,098

Program Title	Number of Programs	Total Enrollment	FTE Enrollment	Total Cost-Programs	Cost per FTE
Auto Body & Repair	6	407	119.62	\$877,227	\$7,333
Auto Mechanics	39	2,151	489.76	\$3,389,733	\$6,921
Barbering/Hairstylist	1	1	0.26	\$210	\$808
Cabinetmaking	3	129	11.24	\$86,950	\$7,736
Commercial Art	6	334	75.96	\$490,140	\$6,453
Commercial Photography	2	93	16.55	\$231,157	\$13,967
Construction Trades	50	3,183	377.24	\$2,905,991	\$7,703
Cosmetologist	8	426	199.45	\$1,310,898	\$6,573
Custodial Services	1	7	0	0	0
Design and Visual Communication	11	1,225	172.55	\$934,855	\$5,418
Diesel Mechanics	2	25	16.16	\$72,881	\$4,511
Electrician	1	7	6.66	\$26,526	\$3,984
Graphic Printing & Communications	2	91	18.83	\$246,308	\$13,081
Graphics/ Printing, Other	2	70	29.33	\$367,245	\$12,521
Heating & Air Conditioning	1	6	3.45	\$21,380	\$6,197
Industrial Equip. Maintenance & Repair	3	71	11.50	\$117,314	\$10,201
Machine Shop	5	367	41.59	\$291,486	\$7,009
Machinists Technology	1	101	25.47	\$188,432	\$7,398
Masonry/ Bricklaying	1	33	7.56	\$67,370	\$8,911
Small Engine Repair	2	48	24.55	\$117,197	\$4,774
Welding	16	781	146.68	\$993,512	\$6,773



## TRADES AND INDUSTRY

*Follow-up Status of Colorado 2004  
Respondent Secondary Trades and  
Industry Program Completers. (N=3,147)*



## APPROPRIATIONS

The Appropriations for the Colorado Vocational Act reflect moderate increases in the fiscal years since 1971-72. The increases in appropriations have not kept pace with costs of operating vocational education programs. In 2003-04, program operation costs were \$86,604,671 compared to the 2004-05 amount of \$93,788,905, a 7.7 percent increase in 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%

<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  
2001–02, 2002-03, 2003-04 Financial System  
2001–02, 2002-03, 2003-04 Student Accounting System  
2001–02, 2002-03, 2003-04 Follow-up/Placement Report  
2002, 2003, 2004 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.

### **This report has been prepared by:**

Career & Technical Education  
Colorado Community College System  
Julie Eddy, Manager of CTE Data and Research  
Carole Lionberger, Director of CTE  
Victoria Ekelund, Administrative Assistant III  
Dr. Linda Bowman, Vice President for Academic and Student Affairs  
Brian Jenkins, CTE Grants Manager

Special thanks to IDF-Design and to the IDF-Quick Copy Center and Print Shop who were instrumental in the production of this report.

Special thanks to the following CCCS staff for their contributions: Gail Anderson; Jan Donato; Samantha O'Neill-Dunbar; Darrell Green; Kathy Harris; Doug Hawk; Patti Krattenmaker; Cindy LeCoq; Michele McCall; Scott Stump; Claire Villarosa; and Teresa Yohon.

### **For additional copies of this document, contact:**

Career & Technical Education  
Colorado Community College System  
9101 E. Lowry Blvd.  
Denver, Colorado 80230-6011  
(303) 620-4000  
[www.cccs.edu](http://www.cccs.edu)

The Community Colleges of Colorado do not unlawfully discriminate on the basis of race, color, creed, national origin or ancestry, sex, age, or handicap in admission or access to, or treatment or employment in, its educational programs or activities. Inquiries may be referred to the Director of Affirmative Action, 9101 E. Lowry Blvd., Denver, Colorado 80230-6011, (303) 620-4000.

# 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.



**COLORADO COMMUNITY COLLEGE SYSTEM**

9101 E. Lowry Blvd., Denver CO 80230-6011

303-620-4000 • [www.cccs.edu](http://www.cccs.edu)