



MEMORANDUM

To: Members of the Joint Budget Committee, House Education Committee,
and Senate Education Committee

From: Nancy McCallin, President, Colorado Community College System

Date: February 23, 2009

Re: 38th Annual Career Technical Act Report for Fiscal Year 2007-08

This report contains accountability information concerning career and technical education (CTE) in the public schools districts of Colorado for the 2007-08 school year. CCCS respectfully submits this report to the Joint Budget Committee and House and Senate Education Committees in compliance with the State Assistance for Vocational Education Act, commonly referred to as the Career Technical Act of 2008 (formerly the Colorado Vocational Act of 1970).

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. CTE has strong ties to the community and business and industry. More than 5,000 community and business leaders serve on advisory committees and councils supporting CTE programs.

In Fiscal Year 2007-08, the general assembly provided \$21,208,319 to assist nearly 160 school districts in funding over 1200 secondary CTE programs. There were just over 116,600 total student enrollments in 270 high schools, 8 technical centers, 6 community colleges, one four-year college, and 4 area vocational schools/technical colleges.

Students Served: Of the 116,600 secondary CTE enrollments, 20 percent (22,770) were identified as economically disadvantaged and 9 percent (10,084) as disabled. Minority students represented 33 percent (38,305) of total CTE students. More than 23,345 students build leadership skills and participate in nine CTE student organizations as state affiliated members. Thirty-nine percent of the total 9-12th grade secondary students in Colorado were enrolled in at least one CTE program in 2007-08. The information above is based on duplicated headcount data. The unduplicated headcount within a career cluster is listed in Exhibit 1.

Measure of Academic Attainment: Ninety-three percent of the CTE concentrators and CTE program completers who graduated in 2007-08 met the partially proficient, proficient or advanced levels on the statewide 10th grade high school Reading/Language Arts CSAP assessment. Of this same population of students, 72% met the partially proficient, proficient or advanced levels on the statewide 10th grade high school Mathematics CSAP assessment.

Job Placement: In 2007-08, there were 49,176 completers of all secondary CTE programs. Of the 2006-07 program completers schools were able to contact, 87% of those seeking jobs had obtained employment within a year following program completion. The information above is based on duplicated headcount data. The unduplicated headcount data is listed in Exhibit 1.

Colorado's Investment in CTE: Over the last 30 years, appropriations for the Career Technical Act have dropped proportionately to the dramatic increase of the actual cost of CTE programs. In 1971-72, the General Assembly provided just over 58 percent of the actual cost of CTE programs (Actual cost: \$11.16 million, state funding: \$6.5 million). In 2007-08, the General Assembly provided 23.4 percent of the actual cost of CTE programs. (Actual cost: \$90.4 million, state funding: \$21.2 million).

Colorado Career Clusters & Pathways: With the passage of the reauthorization of the federal Perkins Act in 2006, Colorado updated its CTE program areas to reflect the national movement toward Career Clusters and Career Pathways. Colorado grouped the Career Clusters into 6 Industry Sectors that reflect the unique economy of Colorado.

Colorado CTE is designed to help students, young and experienced, choose a career path, pick the learning needed, build the right skills and knowledge, and get into a great job in a field they will love. CTE programs are organized around 17 Career Clusters and 81 Career Pathways opening opportunities for all students to pursue their passion.

Below is a listing of the Colorado Industry Sectors and associated Career Clusters and Career Pathways. In Appendix A you will find the Colorado Career Cluster Model. This provides the general assembly with the specific nature of the types of programs funded. Although Colorado has 17 Career Clusters, CCCS collects data only on those clusters with active CTE programs. Additionally, CCCS approves special programs for at-risk students called Alternative Cooperative Education (ACE) programs. And, a few CTE programs, called Multi-Occupational programs, are for small high schools that do not have sufficient enrollment to justify specialized CTE programs. These unique programs are included in the Colorado Career Clusters model, under Academic and Career Success programs. Finally, please note that CTE is transitioning into this new Career Cluster Model and we expect changes to be made over the next few years as we adapt the Model to Colorado's unique needs.

Agriculture and Natural Resources

- **Agriculture, Food & Natural Resources** -Animal Science, Agribusiness Systems, Environmental Service Systems, Food Products & Processing Systems, Natural Resources, Plant Science, Power, Structural & Technical Systems.
- **Energy** – Fossil Energy Production, Transmission & Distribution, Production Process Technology, Renewable Energy Production, Energy Research.

Business and Public Administration

- **Management & Administration** – Corporate/General Management, Administrative Services, Business Information Technology, Human Resource Management, Operations Management
- **Marketing**-Marketing Communications, Marketing Management, Marketing Research, Merchandising, Professional Sales/Sales Management.
- **Finance**-Accounting, Banking Services, Corporate Finance, Insurance, Securities and Investments.
- **Government & Public Administration**-Revenue & Taxation, Foreign Service, Governance, Planning, Public Management & Administration, Regulation, Legal Services

Hospitality, Human Services and Education

- **Hospitality & Tourism**- Lodging, Recreation Amusements & Attractions, Restaurants & Food/Beverage Services, Travel & Tourism.
- **Human Services**-Consumer Services, Counseling & Mental Health, Family & Community, Personal Care Services, Early Childhood Development.
- **Education & Training**- Teaching and Training, Professional Support Services, Administration & Administrative Support.

Health Sciences and Public Safety

- **Health Sciences**-Biotechnology Research & Development, Diagnostic, Support Services, Health Informatics, & Therapeutic Services
- **Law, Public Safety, Corrections & Security**-Correction Services, Emergency & Fire Management Services, Law Enforcement Services, Security & Protective Services.

Skilled Trades and Technical Sciences

- **Transportation, Distribution & Logistics**- Facility & Mobile Equipment Maintenance, Health, Safety, & Environmental Management, Logistics, Planning & Management Services, Sales & Service, Transportation/Systems Infrastructure, Planning Management Regulation, Warehousing & Distribution Center Operations.
- **Architecture & Construction**-Construction, Design & Pre-Construction, Maintenance & Operations.
- **Manufacturing**-Production/Process Technology, Manufacturing Production, Maintenance, Installation & Repair, Quality Assurance, Health, Safety & Environmental Assurance, Logistics & Inventory Control.

STEM, Arts, Design and Information Technology

- **STEM**-Science, Technology, Engineering and Math
- **Arts, A/V Technology and Communication**-Audio/video Technology and Film, Journalism and Broadcasting, Performing Arts, Printing/Publishing, Telecommunications, Visual & Design Arts.
- **Information Technology**-Information Support and Services, Interactive Media, Network Systems, Programming & Software Engineering.

Exhibit 1 below depicts unduplicated headcount data within each cluster. A student may count in multiple clusters because he/she takes a CTE course in various clusters in an academic year. Many students choose to take more than one CTE class each year and when all of those students are counted in each class, enrollment is above 116,600. When duplication across and within clusters is removed from the data, there were 92,715 individual secondary students enrolled in CTE programs in Fiscal Year 2007-08.

After including administrative costs for districts, Colorado spends over \$90 million educating secondary students in CTE programs. This breaks down to an average cost per student FTE of \$7,222 for the 2007-08 year.¹ CTA funding helps to offset about one quarter (\$21.2 million) of the cost of these important programs. This investment helps Colorado maintain high-quality career and technical education programs that produce workers who are ready for high-skill careers.

¹ Full-time equivalent (FTE) is one student attending six hours per day for 180 days.

Exhibit 1: Fiscal year 2007-08 CTE Student and Cost Information

FY 2007-08 Colorado Career Clusters/Programs	FY 2007-08 student enrollment (1)	FY 2007-08 student completion	FY 2006-07 students employed (2)	FY 2007-08 student FTE	FY 2007-08 school district cost	FY 2007-08 cost per student FTE
Academic & Career Success Programs	21,577	7,707	2,773	1,905	\$18,780,485	\$9,858
Agriculture and Natural Resources Cluster	4,868	2,629	824	794	\$7,248,244	\$9,134
Architecture and Construction Cluster	7,192	2,714	892	752	\$5,286,207	\$7,026
Arts, A/V Technology and Communication Cluster	3,937	1,732	509	618	\$4,747,208	\$7,683
Education & Training Cluster	1,222	592	183	105	\$773,538	\$7,387
Health Science Cluster	1,587	886	338	408	\$3,522,991	\$8,641
Hospitality and Tourism Cluster	6,607	2,801	962	557	\$3,271,888	\$5,874
Human Service Cluster	1,658	870	586	376	\$3,135,380	\$8,328
Information Technology Cluster	746	273	82	85	\$467,655	\$5,481
Law, Public Safety, Corrections, & Security Cluster	161	126	56	71	\$513,936	\$7,211
Management and Administration Cluster	45,901	18,831	4,563	3,656	\$19,676,530	\$5,381
Manufacturing Cluster	2,996	1,256	411	473	\$3,790,008	\$8,020
Marketing Cluster	9,384	4,776	2,114	871	\$5,666,531	\$6,503
STEM Cluster	4,355	2,007	313	329	\$2,104,678	\$6,393
Transportation, Distribution, and Logistics Cluster	2,472	1,430	816	671	\$5,311,314	\$7,911
Totals	114,663	48,630	15,422	11,672	\$84,296,593	\$7,222

(1) Counts are all unduplicated within each cluster, but a student could be enrolled in multiple clusters.

(2) Employed includes related to training, unrelated to training, and military service full or part time.

Appendix A: Colorado Career Clusters Model

