



COLORADO COMMUNITY  
COLLEGE SYSTEM



## 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 28, 2010

Re: 39th Annual Career Technical Act Report for Fiscal Year 2008-2009

This report contains accountability information concerning career and technical education (CTE) in the public schools districts of Colorado for the 2008-09 school year. CCCS respectfully submits this report to the Joint Budget Committee and House and Senate Education Committees in compliance with the State 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.

For Fiscal Year 2009-10, the general assembly provided \$23,189,191 to assist nearly 160 school districts in funding over 1200 secondary CTE programs that were reported from the 2008-2009 school year. In 2008-09 there were just over 116,600 total student enrollments in 260 high schools, eight technical centers, five community colleges, one four-year college, and three area technical colleges.

**Students Served:** Of the 116,600 secondary CTE enrollments, 24 percent (27,551) were identified as economically disadvantaged and 8 percent (8,932) as disabled. Minority students represented 33 percent (38,578) of total CTE students. More than 23,710 students master leadership & workforce readiness skills through participation in nine CTE student organizations as state affiliated members. Thirty-eight percent of the total 9-12<sup>th</sup> grade secondary students in Colorado were enrolled in at least one CTE program in 2008-09. 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-five percent of the CTE concentrators and CTE program completers who graduated with a high school diploma in 2008-09 met the partially proficient, proficient or advanced levels on the statewide 10<sup>th</sup> 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 10<sup>th</sup> grade high school Mathematics CSAP assessment.

**Job Placement:** In 2008-09, there were 50,787 completers of all secondary CTE programs. Of the 2007-08 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 2008-09, the General Assembly provided 25 percent of the actual cost of CTE programs. (Actual cost from FY09 reported expenses: \$90 million, state funding: \$23.1 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 90,628 individual secondary students enrolled in CTE programs in Fiscal Year 2008-09.

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 \$7,541 for the 2008-09 year.<sup>1</sup> CTA funding helps to offset one quarter (\$23.1 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.

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

**Exhibit 1: Fiscal year 2008-09 CTE Student and Cost Information**

<b>FY 2008-09 Colorado Career Clusters</b>	<b>FY 2008-09 student enrollment (1)</b>	<b>FY 2008-09 student completion</b>	<b>FY 2007-08 students employed (2)</b>	<b>FY 2008-09 student FTE</b>	<b>FY 2008-09 school district cost</b>	<b>FY 2008-09 cost per student FTE</b>
Academic & Career Success Cluster (FACS CORE and ACE)	19,638	7,209	3,300	2,026	\$18,697,486	\$9,230
Agriculture and Natural Resources Cluster	4,757	2,988	932	760	\$7,923,805	\$10,422
Architecture and Construction Cluster	7,244	2,937	717	860	\$6,554,827	\$7,620
Arts, A/V Technology and Communication Cluster	4,796	3,242	486	752	\$5,182,577	\$6,893
Education & Training Cluster	780	417	191	111	\$1,022,730	\$9,229
Health Science Cluster	2,036	1,120	293	359	\$2,973,067	\$8,283
Hospitality and Tourism Cluster	7,510	2,825	1,072	659	\$4,027,681	\$6,112
Human Service Cluster	1,976	839	444	365	\$3,106,530	\$8,502
Information Technology Cluster	1,019	278	97	39	\$377,622	\$9,739
Law, Public Safety, Corrections, & Security Cluster	175	175	46	77	\$563,467	\$7,280
Management and Administration Cluster	44,424	17,355	4,808	3,517	\$21,397,911	\$6,084
Manufacturing Cluster	3,243	1,445	410	545	\$4,001,519	\$7,339
Marketing Cluster	10,019	5,473	1,966	890	\$6,046,798	\$6,795
STEM Cluster	4,413	2,445	405	329	\$2,193,729	\$6,661
Transportation, Distribution, and Logistics Cluster	2,684	1,630	562	651	\$5,971,950	\$9,179
<b>Totals</b>	<b>114,714</b>	<b>50,378</b>	<b>15,729</b>	<b>11,940</b>	<b>\$90,041,698</b>	<b>\$7,541</b>

(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.

(3) The enrollment and costs reported from FY09 are used to determine CTA allocation amounts for FY10

## Appendix A: Colorado Career Clusters Model

