

## 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, 2011

Re: 40<sup>th</sup> Annual Career Technical Act Report for Fiscal Year 2009-2010

This report contains accountability information concerning career and technical education (CTE) in the public schools districts of Colorado for the 2009-10 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 2010-11, the general assembly provided \$23,296,124 to assist nearly 160 school districts in funding nearly 1,300 secondary CTE programs that were reported from the 2009-2010 school year. In 2009-10 there were just over 115,400 total student enrollments (90,597 individual CTE students) in 155 public school districts, one charter district, four special schools, eight technical centers, five community colleges, one four-year college, and three area technical colleges.

**Students Served:** Of the more than 115,400 secondary CTE enrollments, 29 percent were identified as economically disadvantaged and 9 percent as disabled. Minority students represented 34 percent of total CTE students. More than 24,737 students master leadership & workforce readiness skills through participation in nine CTE student organizations as state affiliated members. Thirty-eight percent of the total 9<sup>th</sup>-12<sup>th</sup> grade secondary students in Colorado were enrolled in at least one CTE program in 2009-10. 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 with a high school diploma in 2009-10 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 2009-10, there were 52,259 total CTE program completions (45,676 individual CTE students). Of the 2008-09 program completers who were seeking employment who schools were able to contact, 82% of those seeking jobs had obtained employment within a year following program completion. The information above is based on duplicated headcount within a career cluster. 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 2009-10, the General Assembly provided 25 percent of the actual cost of CTE programs. (Actual cost from FY10 reported expenses: \$91 million, state funding: \$23 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 Postsecondary and Workforce Readiness 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.

### **Colorado Career Clusters**

- **Agriculture, Food & Natural Resources:** Animal Science; Agribusiness Systems; Food Products & Processing Systems; Natural Resource & Environmental Systems; Plant Science; Power, Structural & Technical Systems.
- **Energy:** Electromechanical Generation & Maintenance; Electrical Energy Transmission & Distribution; Energy Efficiency & Environmental Technology; Fossil Energy Extraction, Processing & Distribution; Renewable Energy Production.
- **Management & Administration:** Administrative Services; Business Information Technology; Corporate/General Management; 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:** Foreign Service; Governance; Legal Services; Planning; Public Management & Administration; Regulation; Revenue & Taxation.
- **Hospitality & Tourism:** Lodging; Recreation Amusements & Attractions; Restaurants & Food/Beverage Services; Travel & Tourism.
- **Human Services:** Consumer Services; Counseling & Mental Health Services; Early Childhood Development; Family & Community Services; Personal Care Services.
- **Education & Training:** Administration & Administrative Support; Professional Support Services; Teaching and Training.
- **Health Sciences:** Biotechnology Research & Development; Diagnostic Services; Health Informatics; Supportive Services; Therapeutic Services.
- **Law, Public Safety, Corrections & Security:** Correction Services; Emergency & Fire Management Services; Law Enforcement Services; Security & Protective Services.

- **Transportation, Distribution & Logistics:** Facility & Mobile Equipment Maintenance; Health, Safety, & Environmental Management; Logistics, Planning & Management Services; Planning, Management & Regulation; Sales & Service; Transportation Operations; Transportation/Systems Infrastructure; Warehousing & Distribution Center Operations.
- **Architecture & Construction:** Construction; Design & Pre-Construction; Maintenance & Operations.
- **Manufacturing:** Health, Safety & Environmental Assurance; Logistics & Inventory Control; Manufacturing Production; Maintenance, Installation & Repair; Production/Process Technology; Quality Assurance.
- **STEM:** Research, Exploration & Innovation; Design, Development & Application.
- **Arts, A/V Technology & Communication:** Audio/Video Technology and Film; Journalism and Broadcasting; Performing Arts; Printing/Publishing; Visual & Design Arts.
- **Information Technology:** Information Support and Services; Interactive Media; Network Systems & Telecommunications; Programming & Software Engineering.
- **Postsecondary & Workforce Readiness:** Alternative Cooperative Education (ACE); FACS Core; World of Work.

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 115,400. When duplication across and within clusters is removed from the data, there were 90,597 individual secondary students enrolled in CTE programs in Fiscal Year 2009-10.

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 \$8,423 for the 2010-11 year.<sup>1</sup> CTA funding helps to offset one quarter (\$23.2 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.

---

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

**Exhibit 1: Fiscal year 2009-10 CTE Student and Cost Information**

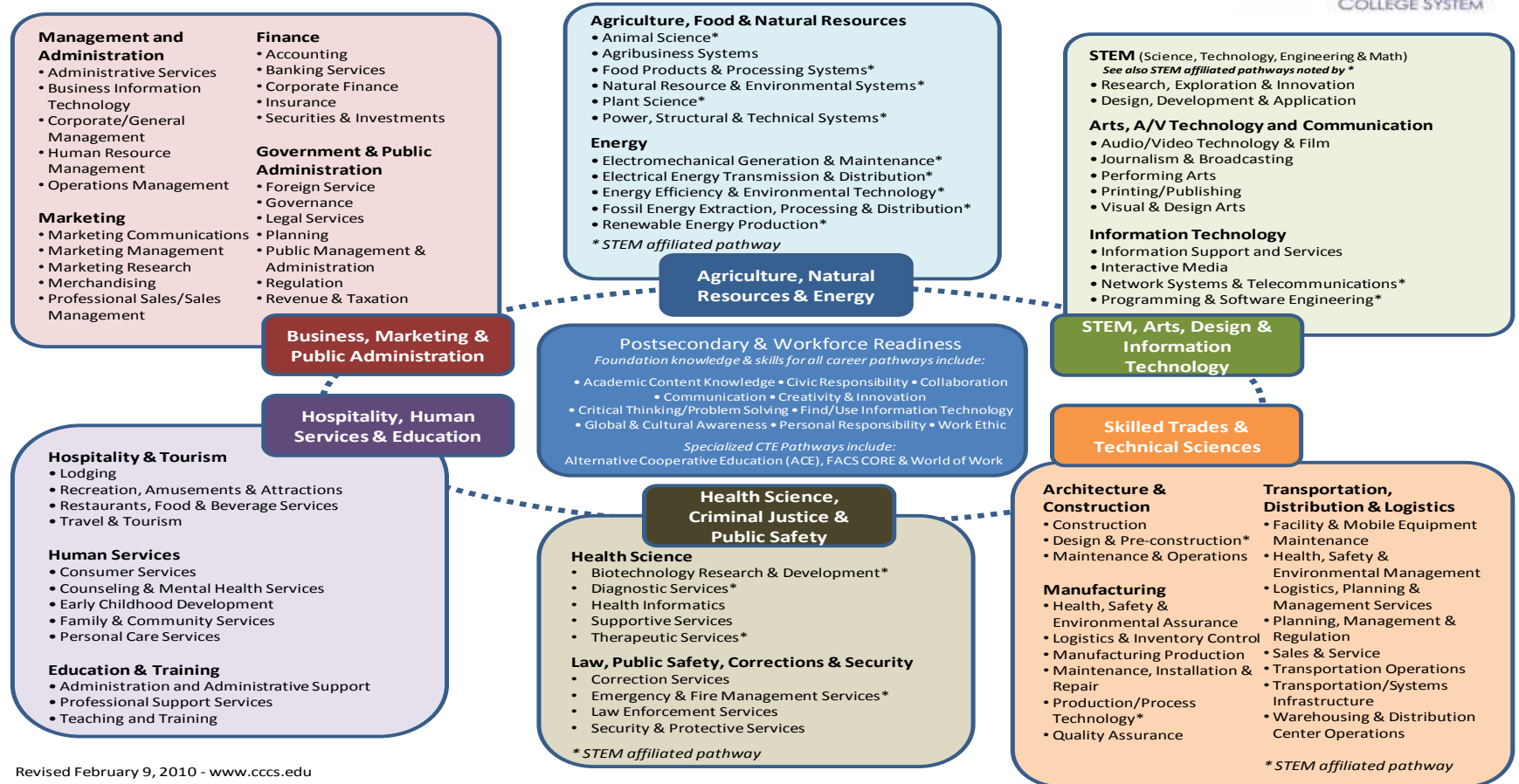
<b>FY 2009-10 Colorado Career Clusters</b>	<b>FY 2009-10 student enrollment (1)</b>	<b>FY 2009-10 student completion</b>	<b>FY 2008-09 students employed (2)</b>	<b>FY 2009-10 student FTE</b>	<b>FY 2009-10 school district cost</b>	<b>FY 2009-10 cost per student FTE</b>
Agriculture, Food & Natural Resources Cluster	5343	3594	1249	751	\$7,432,014	\$9,900
Architecture & Construction Cluster	7160	3184	704	994	\$5,537,726	\$5,574
Arts, A/V Technology & Communication Cluster	6719	3601	622	770	\$5,115,495	\$6,644
Education & Training Cluster	304	266	134	46	\$518,634	\$11,173
Energy Cluster	93	87	29	24	\$283,964	\$11,605
Health Science Cluster	1927	1266	374	304	\$2,285,547	\$7,518
Hospitality & Tourism Cluster	7324	3129	987	612	\$3,540,608	\$5,783
Human Services Cluster	1097	678	348	258	\$2,032,872	\$7,893
Information Technology Cluster	794	274	81	74	\$785,993	\$10,666
Law, Public Safety, Corrections & Security Cluster	300	297	67	113	\$967,099	\$8,532
Management & Administration Cluster	42064	17046	4195	2,764	\$17,186,527	\$6,219
Manufacturing Cluster	5499	2280	689	605	\$4,327,421	\$7,149
Marketing Cluster	8467	5391	2393	810	\$5,537,417	\$6,839
Postsecondary & Workforce Readiness Cluster	19905	7058	2750	1,440	\$16,827,257	\$11,684
STEM Cluster	3994	1954	285	352	\$2,154,056	\$6,115
Transportation, Distribution, & Logistics Cluster	2763	1732	713	591	\$4,530,617	\$7,664
<b>Totals</b>	<b>113,753</b>	<b>51,837</b>	<b>15,620</b>	<b>10,508</b>	<b>\$79,063,247</b>	<b>\$7,524</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.

## Appendix A: Colorado Career Clusters Model

# Colorado Career Cluster Model



Revised February 9, 2010 - www.cccs.edu