

Wyoming State Department of Education

# Carl Perkins IV State Report

Secondary Schools and Students  
2008-2009

Submitted by PRES Associates, Inc  
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## Introduction to Carl Perkins IV

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*In 1916, John Dewey wrote in *Democracy and Education*, "Education through occupations . . . combines within itself more of the factors conducive to learning than any other method." For many students, perhaps most, the world of work brings meaning and understanding to even the most complicated academic concepts and skills. — Hoachlander, 2007*

The Carl Perkins Act provides federal support for rigorous career and technical education (CTE) programs that provide students with knowledge and skills to keep the United States competitive. States are provided with funds which are in turn distributed to eligible recipients, such as local educational agencies (LEAs) and postsecondary institutions, to develop more fully the academic, and career and technical education knowledge and skills of secondary and postsecondary education students who elect to enroll in career and technical education programs.

In keeping with the evolving trends in career and technical education, the Perkins Act was revised in 2006. One of the notable provisions of the new Carl D. Perkins Career and Technical Education Improvement Act (Perkins IV) is the call for new "programs of study." The law requires states to offer high school students a new kind of career and technical education that helps prepare them for both college and career, not just for success in entry-level occupations. In addition to the new programs of study, the Perkins Act of 2006 has several other features that will significantly impact state and local recipients of Perkins funds. Noteworthy changes in the most recent version of the Perkins Act include, but are not limited to: a) an increased emphasis on local accountability; b) changes to federal performance measures and definitions of student populations; c) development and recognition of CTE Programs of Study<sup>1</sup>; d) an emphasis on increasing coordination between the different programs within CTE as well as integration with academics; and e) focusing CTE so that students are being prepared for future employment in high-demand, high-skill, and/or high-wage jobs.

The following report presents data collected during the 2008-2009 school year from Wyoming high schools under the guidelines set forth under the second year of Perkins IV. The information contained in this report illustrates how CTE programs are working in the state of Wyoming and also provides invaluable data to inform future planning.

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<sup>1</sup> Such Programs of Study should explicitly address: 1) connections between secondary and postsecondary education; and 2) integration of academic and technical skills.

## CTE Concentrators and Participants

Demographic information was collected from 66 secondary schools with students participating in CTE programs in Wyoming during the 2008-09 school year. Specifically, this information was collected from CTE Concentrators and CTE Participants. The table below describes how these categories are defined under Perkins IV. The charts and tables in this section summarize the demographic information available for these CTE students.

**Table 1. Perkins Student Definitions**

Perkins IV Definitions
At the <i>secondary level</i> , a <b>CTE concentrator</b> is defined as a secondary student who has completed three or more courses in a CTE program, including those who may be currently enrolled in their third course.
At the <i>secondary level</i> , a <b>CTE participant</b> is defined as a secondary student who has <i>completed</i> one or more courses in a CTE program sequence.

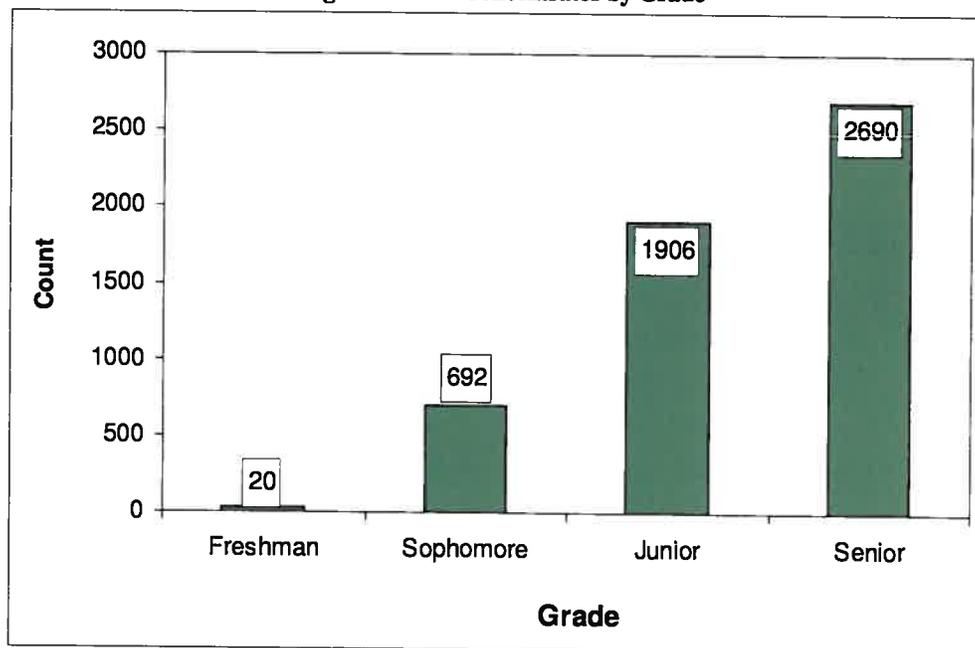
## CTE Concentrators

At the secondary level, a **CTE concentrator** is defined as a secondary student who has completed three or more courses in a CTE program, including those who may be currently enrolled in their third course.

There were 5,307 total students reported as CTE concentrators during the 2008-2009 school year. The charts and tables that follow show the demographic information reported on CTE concentrators by grade level, gender, ethnicity, eligibility category, number of CTE program courses taken, and career cluster/program area.

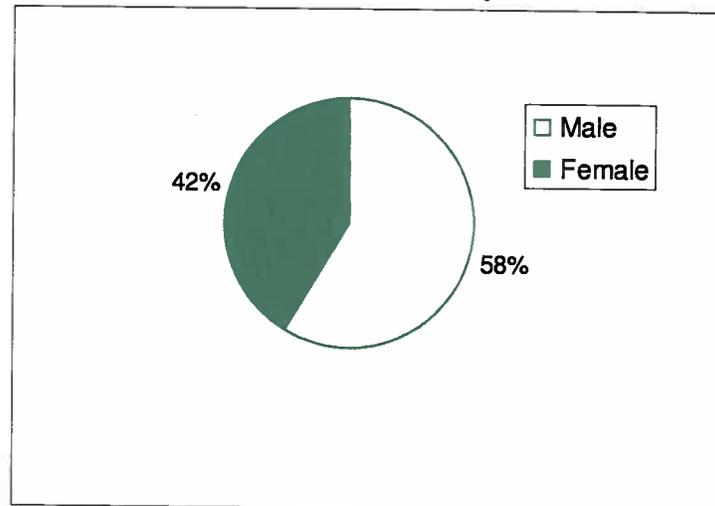
**Grade Level.** Among CTE concentrators, the majority of students (51%) were seniors, followed by 36% who were juniors. Only 13% of CTE concentrators were sophomores, and very few freshman students (0.4%) met the definition of a CTE concentrator. Such a grade level distribution is to be expected given that CTE concentrators must have at least completed 2 courses and currently enrolled in a 3<sup>rd</sup> course.

Figure 1. CTE Concentrator by Grade



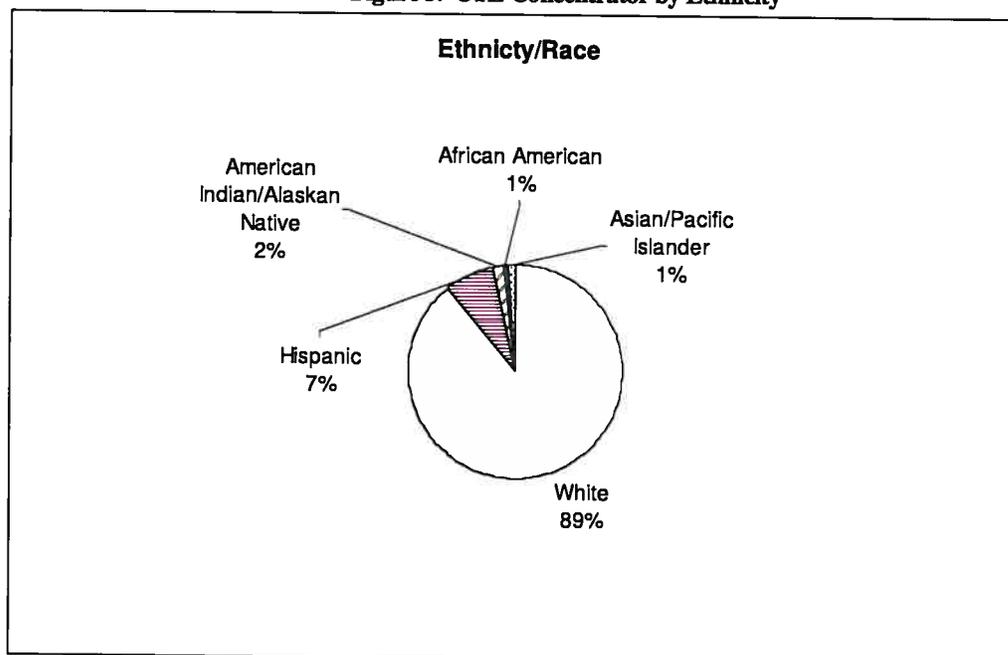
**Gender.** During the 2008-2009 year, it was reported that 3,104 (58%) CTE concentrators were male and 2211 (42%) were female. The proportion of males to females was very consistent with what was reported during the 2007-2008 school year (58 % males; 42% females).

Figure 2. CTE Concentrator by Gender



**Ethnicity.** The majority of CTE concentrators are White (89%), followed by Hispanics (7%). Note that these figures are consistent with the ethnic/racial distribution of the student population statewide (89% White; 7% Hispanic; and Other 4%). Thus, although there are relatively few minority CTE concentrators, this is consistent with the statewide composition and remains unchanged from the 2007-2008 school year.

Figure 3. CTE Concentrator by Ethnicity



\* Other/Unknown = .1%

**Eligibility Category.** Note that under the new Perkins IV guidelines, it was required that information be collected on migrant status. Within the subpopulations, most concentrators fell into the economically disadvantaged category (15.6% of total concentrators). In addition, compared to last year's eligibility category composition, the distribution of the subpopulations has remained stable.

**Table 2. CTE Concentrator by Eligibility Category**

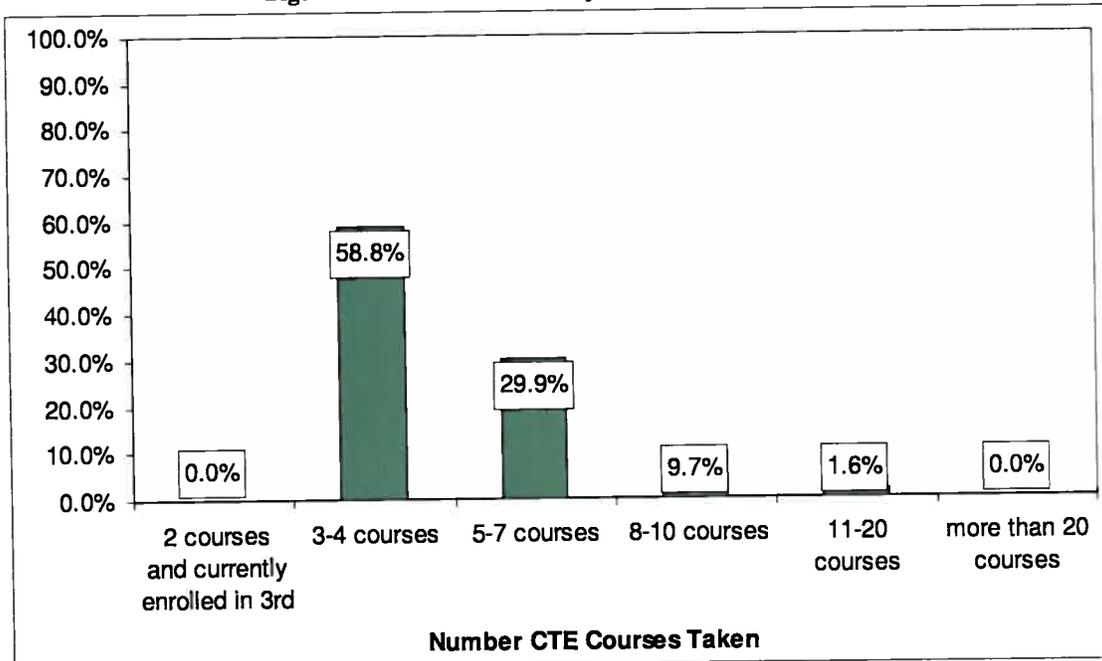
Category*	Count	Percent of Total
Economically Disadvantaged	829	15.6%
Disability	343	6.5%
Single Parent	165	3.1%
Other Educational Barriers	97	1.8%
Limited English Proficiency	48	0.9%
Corrections	10	0.2%

\*Students may have been eligible under more than one category.

NOTE: There were 7 reported migrant student and 5 displaced homemakers.

**Number of CTE program courses taken.** The majority of CTE concentrators (58.8%) have taken 3-4 CTE courses.

**Figure 4. CTE Concentrator by Number Courses Taken**



**Career/cluster/program area.** For the sixth year in a row, architecture and construction, agriculture, business administration, and manufacturing were the most popular program areas with the highest enrollment among CTE concentrators. More than half (54.9%) of all CTE concentrators were enrolled in these four program areas.

Note that in line with these results, Wyoming prioritized the development of the new assessment system by first completing its review of the CTE content standards for the Architecture and Construction, Manufacturing, and Agriculture program areas.

**Table 3. CTE Concentrator Enrollment by Program Area**

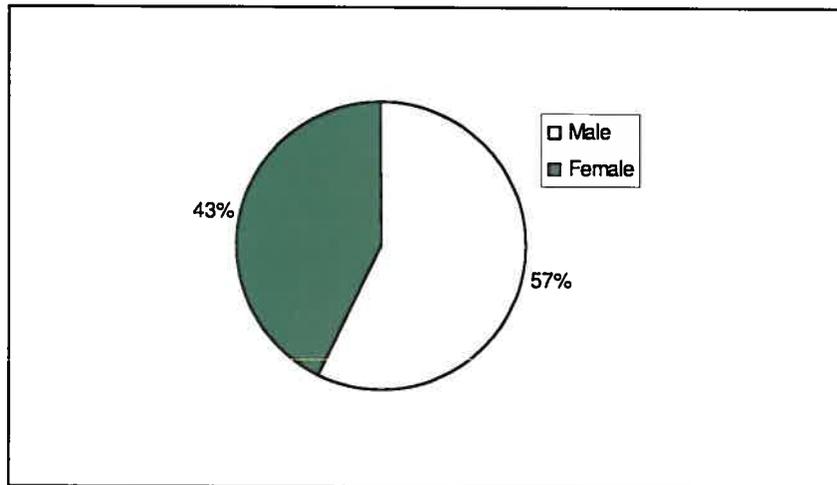
Program Area	Count	Percent
Agriculture, Nat. Resources	824	15.5%
Architecture & Construction	785	14.8%
Business Admin.	688	13.0%
Manufacturing	614	11.6%
Info. Technology	531	10.0%
Hosp. & Tourism	457	8.6%
Transportation, Distribution & Logistics	308	5.8%
Arts, AV Tech & Comm.	294	5.5%
Retail & Wholesale Sales	281	5.3%
Human Services	263	5.0%
Health Science	164	3.1%
Education & Training	39	0.7%
Science Research & Engineering	36	0.7%
Finance	20	0.4%
Law & Public Safety	2	0.0%
Gov. & Public Admin.	1	0.0%

## **CTE Participants**

At the secondary level, a **CTE participant** is defined as a secondary student who has completed one or more courses in a CTE program sequence.

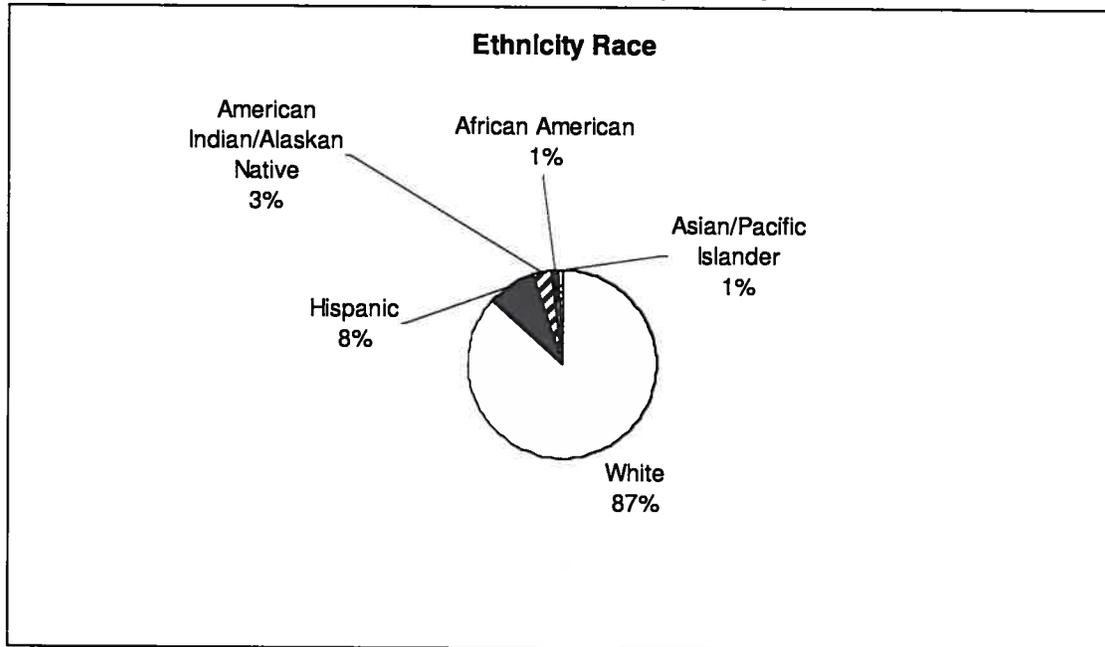
**Gender.** During the 2008-2009 school year, it was reported that 8,258 males and 6,266 females were CTE participants. Note that these figures represent a decrease as compared to the prior year. However, last year's counts included a number of duplicates. In contrast, the 08-09 counts reflect primarily unduplicated data.

**Figure 5. CTE Participants by Gender**



**Ethnicity.** As noted previously, due to limited ethnic diversity overall in Wyoming, the ethnic distribution of CTE participants consists of 87% White students.

**Figure 6. CTE Participants by Ethnicity**



**Eligibility Category.** Most CTE participants in a special population were categorized as non-traditional enrollees (21.31% of total).

**Table 4. CTE Participants by Eligibility Category**

Category*	Count	Percent of Total
Nontraditional Enrollees	3,095	21.31%
Economically Disadvantaged	2,580	17.76%
Disability	1,070	7.37%
Single Parent	315	2.17%
Limited English Proficiency	214	1.47%
Migrant Status	7	0.05%
Displaced Homemakers	5	0.03%

# Federal Indicators

## Summary of Results

The following table shows an overall summary of results statewide by each of the federal Perkins IV indicators. The sections that follow describe results for each of these indicators in more detail and by subgroup. As noted, with the exception of 1S1 (reading attainment) all targets were met.

**Table 5. Summary of Federal Perkins IV Indicator Results: Statewide**

Indicators	Perkins IV Measurement Definitions	2008-2009 Results	2008-2009 Targets
(1S1) Academic Attainment: Reading	Percent of CTE concentrators who have met the proficient or advanced level on the PAWS reading assessment administered by the State of Wyoming under Section 1111(b)(3) of the Elementary and Secondary Education Act (ESEA) as amended by the No Child Left Behind Act based on the scores that were included in the State's computation of adequate yearly progress (AYP)	62.15	66.00
(1S2) Academic Attainment: Math	Percent of CTE concentrators who have met the proficient or advanced level on the PAWS math assessment administered by the State of Wyoming under Section 1111(b)(3) of the Elementary and Secondary Education Act (ESEA) as amended by the No Child Left Behind Act based on the scores that were included in the State's computation of adequate yearly progress (AYP)	64.64	61.90
(2S1) Technical Skill Attainment	Percent of CTE concentrators who passed technical skill assessments that are aligned with industry-recognized standards, if available and appropriate, during the reporting year.	82.01	52.00
(3S1) Completion	Percent of CTE concentrators who earned a regular secondary school diploma, earned a General Education Development (GED) credential as a State-recognized equivalent to a regular high school diploma (if offered by the State) or other State-recognized equivalent (including recognized alternative standards for individuals with disabilities), or earned a proficiency credential, certificate, or degree, in conjunction with a secondary school diploma (if offered by the State) during the reporting year.	94.00	90.00
(4S1) Graduation Rate	Percent of CTE concentrators who, in the reporting year, were included as graduated in the State's computation of its graduation rate as described in Section 1111(b)(2)(C)(vi) of the ESEA	91.31	80.00
(5S1) Placement	Percent of CTE concentrators who left secondary education and were placed in postsecondary education or advanced training, in the military service, or employment in the second quarter following the program year in which they left secondary education.	95.25	95.00
(6S1) Non-Traditional Participation	Percent of CTE participants from underrepresented gender groups who participated in a program that leads to employment in nontraditional fields during the reporting year.	33.99	29.71
(6S2) Non-Traditional Completion	Percent of CTE concentrators from underrepresented gender groups who completed a program that leads to employment in nontraditional fields during the reporting year.	30.37	27.06

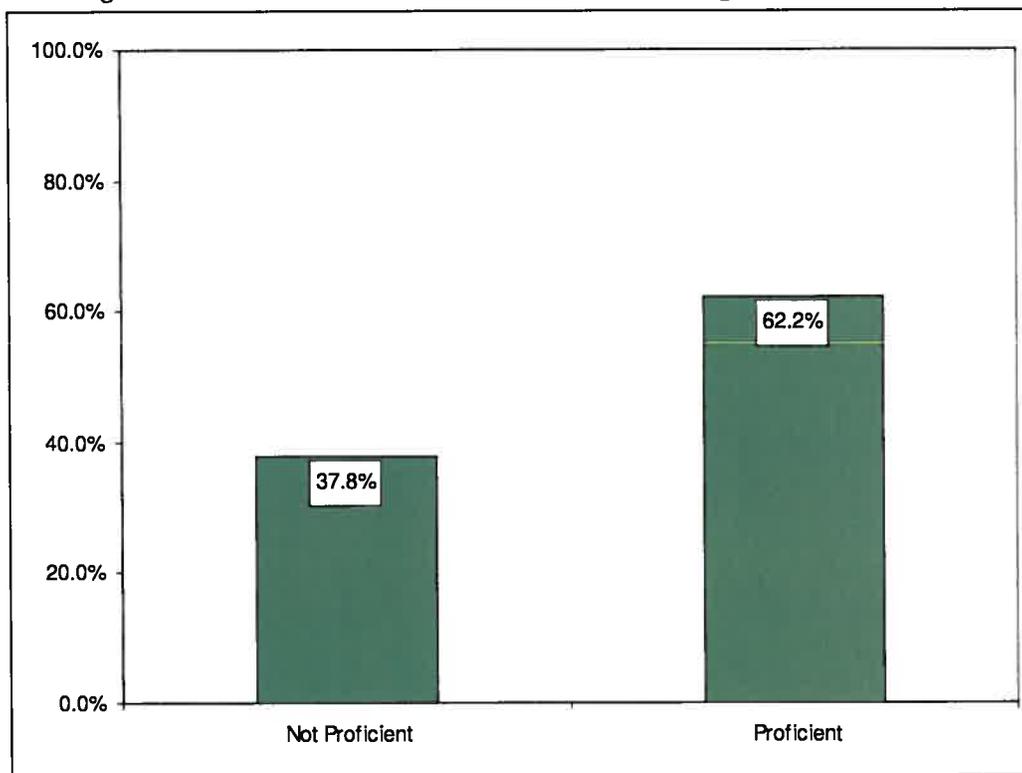
Note: Columns highlighted in yellow indicate that target goals were met for the 2008-2009 school year

## **1S1 – Academic Attainment: Reading**

To compute academic attainment, CTE concentrators entered in the WyCTA database are matched with PAWS data received from the Wyoming Department of Education (*NOTE: Per Federal guidelines, only students whose scores were included in statewide AYP computation are included*). For example, for the 2008-09 school year, CTE concentrators from the WyCTA database were matched with all 11<sup>th</sup> graders who took the PAWS in Spring 2009. The indicator was then calculated by the number of CTE concentrators proficient on the reading portion of the PAWS.

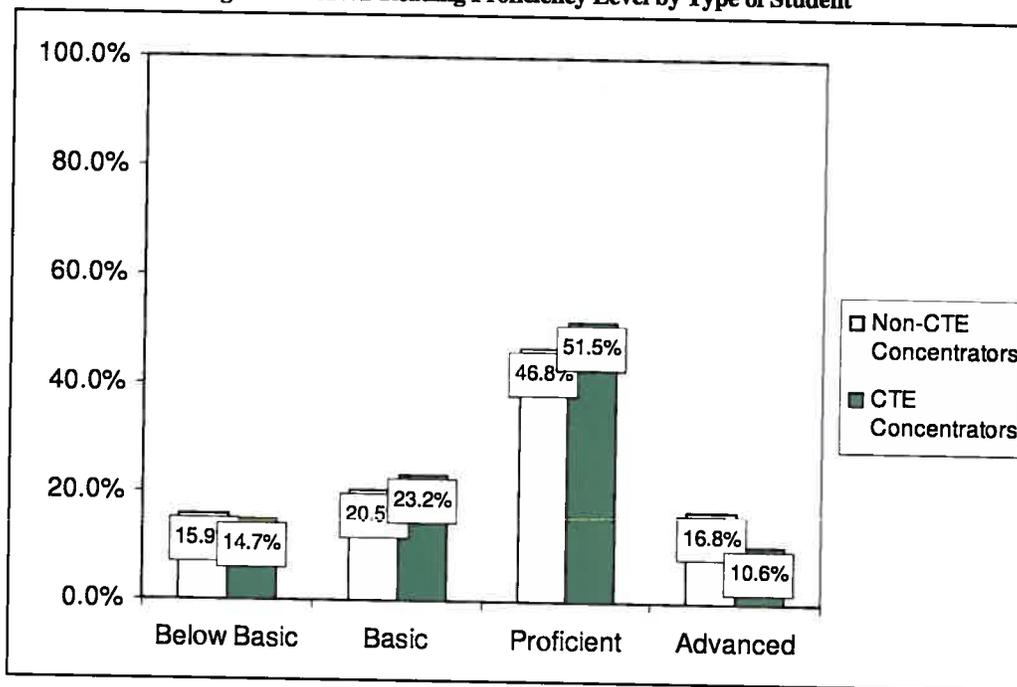
Overall, **62.2%** of CTE concentrators were proficient on the reading subtest as compared to 37.8% not proficient.

**Figure 7. Percent of CTE Concentrators Proficient on Reading Subtest of PAWS**



Comparisons between CTE concentrators and non-CTE concentrators show that overall academic proficiency rates in reading were very similar (62% for concentrators and 64% for non-concentrators). While a slightly higher proportion of CTE concentrators (52%) were classified as Proficient than non-CTE concentrators (47%), there were more non-CTE concentrators in the Advanced proficiency level (17%) than CTE concentrators (11%).

Figure 8. PAWS Reading Proficiency Level by Type of Student



**Indicator 1S1 by Subpopulations:**

Results for indicator 1S1 by the subgroups of gender, ethnicity and special populations are reported in the following table. Highlights and key finding include:

- 69.53% of females were proficient in reading as compared to 57.13% of males.
- Students in the ethnicity categories of Asian/Hawaiian/Pacific Islander (81.25%) and White (63.51%) had the highest percentages of students meeting reading proficiency targets for reading.
- The highest proportion of special population students to meet this indicator were economically disadvantaged students (82.28%).

**Table 6. Indicator 1S1 Results by Subpopulations**

<b>(1S1) Academic Attainment: Reading</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Male</b>	537	940	<b>57.13%</b>
<b>Female</b>	445	640	<b>69.53%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	8	17	<b>47.06%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	13	16	<b>81.25%</b>
<b>Black</b>	9	19	<b>47.37%</b>
<b>Hispanic</b>	65	132	<b>49.24%</b>
<b>White</b>	886	1,395	<b>63.51%</b>
<b>Other</b>	1	1	<b>100.00%</b>
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	21	93	<b>23.58%</b>
<b>Economically Disadvantaged</b>	130	158	<b>82.28%</b>
<b>Single Parents</b>	23	37	<b>62.16%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	*	*	*
<b>Migrant</b>	*	*	*
<b>Non-Traditional</b>	201	276	<b>72.83%</b>

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

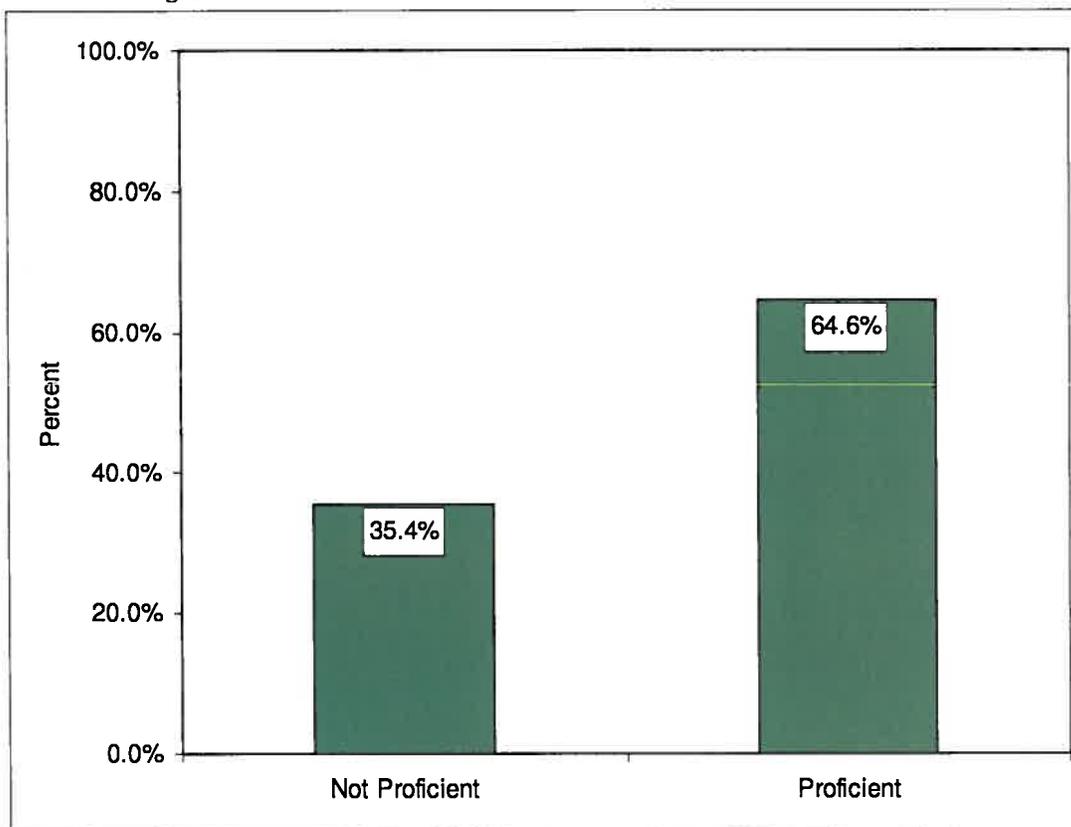
\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

## 1S2 – Academic Attainment: Mathematics

Like indicator 1S1, in order to determine academic skill attainment in mathematics per Perkins IV guidelines, data from the Proficiency Assessment for Wyoming Students (PAWS) was obtained from the Wyoming Department of Education. The indicator is then calculated the same way (i.e. number of CTE concentrator's proficient on the mathematics portion of the PAWS). Again, it should be noted that these results include concentrators assessed via the PAWS during the 08-09 school year.

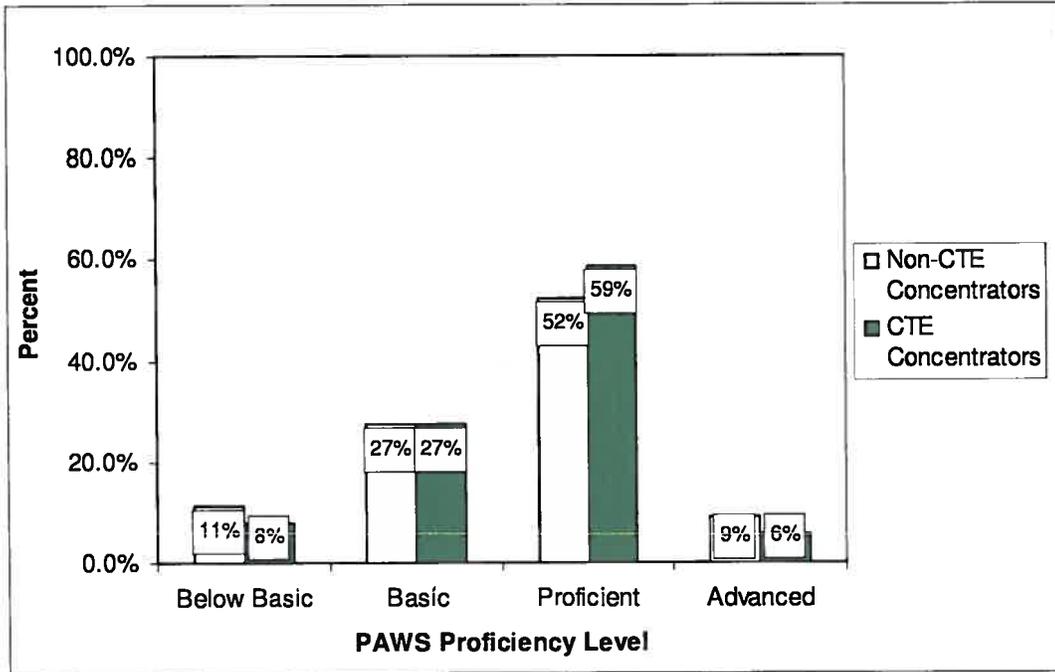
Statewide results show that **64.6% of CTE concentrators were proficient in math** as compared to 35.4% who were not proficient.

**Figure 9. Percent of CTE Concentrators Proficient on Math Subtest of PAWS**



Comparisons between CTE concentrators and non-CTE concentrators show that overall academic proficiency rates in math were very similar (65% for concentrators and 61% for non-concentrators). As shown in the following figure, a higher percentage (59%) of CTE concentrators were under the Proficient category than non-CTE concentrators (52%); however, 9% of non-CTE concentrators were advanced as compared to 6% of CTE concentrators.

**Figure 10. PAWS Math Proficiency Level by Type of Student**



**Indicator 1S2 by Subpopulations:**

Results for indicator 1S2 by subgroups are shown in the table below. Highlights of these results include:

- Unlike indicator 1S1, results by gender show that a higher percentage (66.84%) of males were proficient in math than females (61.41%).
- For ethnicity, Asian/Hawaiian/Pacific Islander students were most likely to meet the math proficiency targets (87.50%).
- Looking at special populations, students in the single parent (64.86%) and non-traditional (60.87%) categories had the highest proportion of students meeting the proficiency target, while students with disabilities had the lowest percentage of students meeting the target (22.58%).

**Table 7. Indicator 1S2 Results by Subpopulations**

<b>(1S2) Academic Attainment: Mathematics</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Male</b>	629	941	<b>66.84%</b>
<b>Female</b>	393	640	<b>61.41%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	6	17	<b>35.29%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	14	16	<b>87.50%</b>
<b>Black</b>	6	19	<b>31.58%</b>
<b>Hispanic</b>	75	133	<b>56.39%</b>
<b>White</b>	920	1,395	<b>65.95%</b>
<b>Other</b>	1	1	<b>100.00%</b>
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	21	93	<b>22.58%</b>
<b>Economically Disadvantaged</b>	130	258	<b>50.39%</b>
<b>Single Parents</b>	24	37	<b>64.86%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	*	*	*
<b>Migrant</b>	*	*	*
<b>Non-Traditional</b>	168	276	<b>60.87%</b>

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

## 2S1 – Technical Skill Attainment

Indicator 2S1 reports on the percent of CTE concentrators who passed technical skill assessments that are aligned with industry-recognized standards, if available and appropriate, during the reporting year. Wyoming is renewing and updating their CTE content standards, and designing a new assessment mechanism for programs that will allow measurement to occur at the industry-specific level to meet the requirement of the new Perkins law. Section 113(b)(A)(ii) says that states must develop an indicator relating to “student attainment of career and technical skill proficiencies, including student achievement on technical assessments that **are aligned with industry-recognized standards**, if available and appropriate.” While Wyoming has historically had a statewide assessment of technical skill attainment, the current statewide assessment of CTE skills is designed to tap generic workplace skills<sup>2</sup> solely and is not industry-specific. Wyoming has developed a multi-step, multi-year, phase-in of a new CTE assessment system. The general process for development of this new system consists of the following:

- Convene an oversight coordinating group.
- Create criteria for updating program standards.
- Convene expert content teams (educators and business) to review content standards to be assessed.
- For each program area, determine if existing assessments are appropriate and affordable; determine where new assessments need to be developed.
- Select and/or develop assessments to measure the articulated skills and competencies.
- Create and/or pilot versions of the new assessments.
- Apply criteria for test security, administration and reporting features.
- Train pilot-group of teachers in new assessment standards and processes.
- Train teachers in developing formative assessments based upon the program’s tested competencies.
- Implement new assessments with pilot group of teaches and faculty.
- Administer the test and report results.
- Conduct pilot professional development for teachers to reflect upon test data to improve and focus classroom teaching.
- Scale up use of new assessments and teacher training.

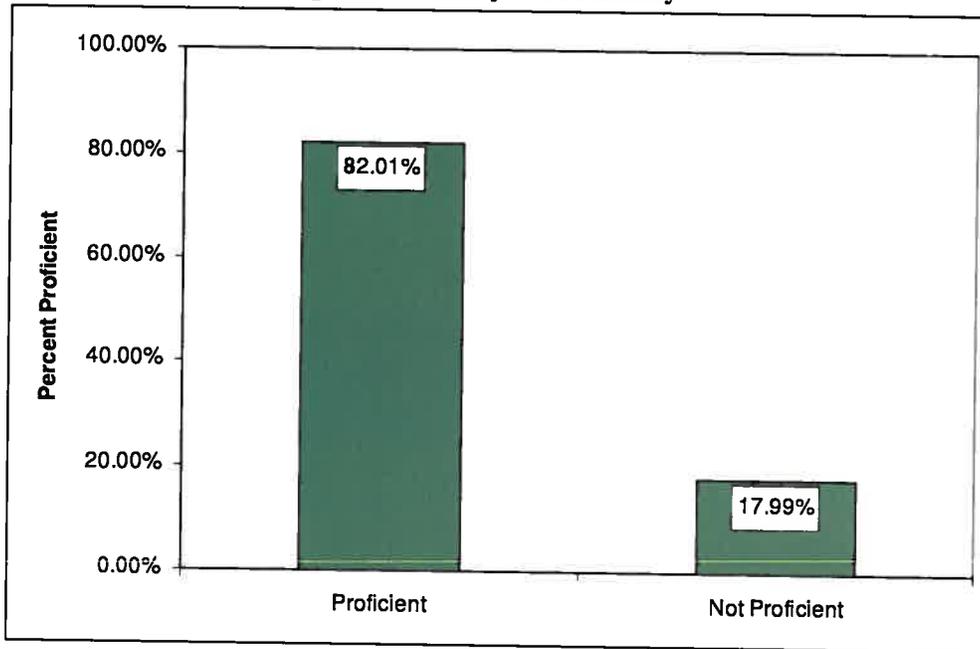
These processes began during the 2007-2008 school year for the program areas of Manufacturing, Agriculture and Natural Resources, and Architecture and Construction, three of Wyoming’s highest enrollment program areas. In Spring 2010, the majority of pathways within these three program areas will have assessments ready for administration. However, for the 2008-2009 reporting year, the existing WyCTA skills assessment was used. Specifically, the WyCTA subtests for Affective & Thinking skills, Pre-Employment skills, and Employability skills were selected to assess students while the new assessment system is being developed. Under this revised, transitional assessment measure of technical skill proficiency, students need to be proficient in 2 out of the 3 content areas and were required to be assessed on at least 2 of the skills.

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<sup>2</sup> It should be noted that the new assessment system may still include generic workplace skills that transcend individual program areas, however, it is no longer considered sufficient that this is the only dimension of technical skill attainment measured by the state assessment. Measures of industry-specific competencies must also be built into any statewide assessment system designed to measure technical skill attainment.

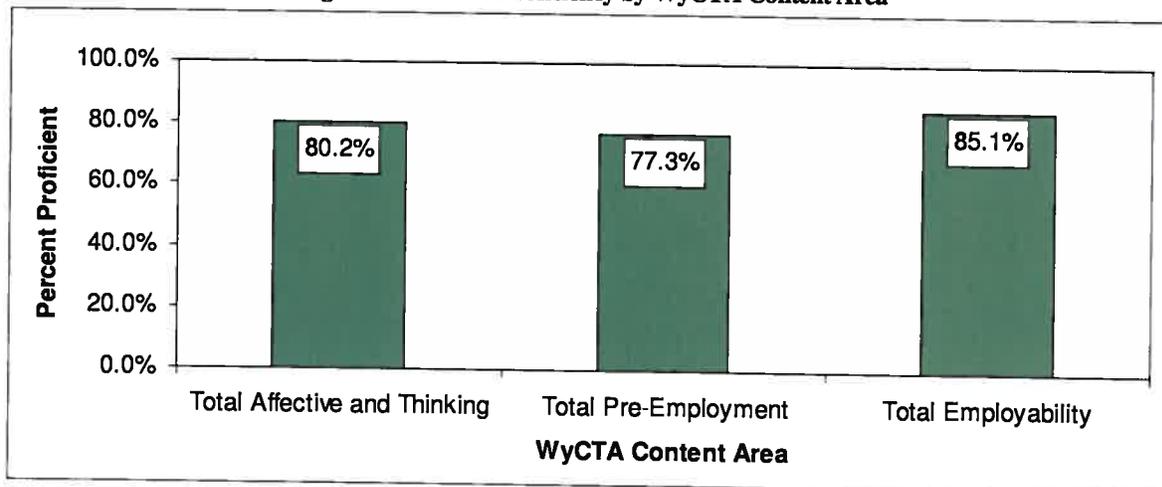
Results showed that 82% of CTE concentrators were proficient on the Total WyCTA scale compared to only 18% who were not proficient. These results were almost the same as results from the 2007-2008 school year.

**Figure 11. Total WyCTA Proficiency**



The figure below shows results for proficiency in the three WyCTA content areas assessed during the 2008-2009 school year. CTE concentrators were most proficient in the area of Employability (85.1%), followed by 80.2% proficient in Affective and Thinking, and 77.3% proficient in Pre-Employment skills.

**Figure 12. Overall Proficiency by WyCTA Content Area**



Among CTE concentrators assessed, the program areas with the highest percent of proficient students were Finance (94.7% proficient) and Education and Training (91.9% proficient). The lowest percent proficiency was in the Transportation, Distribution and Logistics program area with 76.0% proficient.

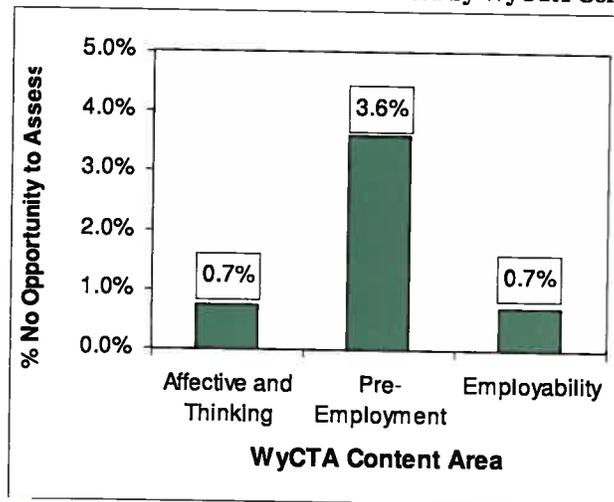
**Table 8. Total WyCTA Proficiency by Program Area**

	Number Assessed	Percent Proficient
<b>Finance</b>	19	94.7%
<b>Education &amp; Training</b>	37	91.9%
<b>Retail &amp; Wholesale Sales</b>	223	88.3%
<b>Business Admin.</b>	591	84.6%
<b>Hosp. &amp; Tourism</b>	381	84.5%
<b>Arts, AV Tech &amp; Comm.</b>	246	83.7%
<b>Info. Technology</b>	434	83.6%
<b>Human Services</b>	217	82.9%
<b>Agriculture, Nat. Resources</b>	749	82.4%
<b>Health Science</b>	143	80.4%
<b>Sci. Research &amp; Engineering</b>	35	80.0%
<b>Architecture &amp; Construction</b>	704	78.7%
<b>Manufacturing</b>	521	78.5%
<b>Transportation, Distribution &amp; Logistics</b>	271	76.0%
<b>Law &amp; Public Safety*</b>	2	—
<b>Gov. &amp; Public Admin.</b>	1	—

\*Proficiency levels not provided for program areas with less than 10 participants

Percent of concentrators who were not assessed in the WyCTA content areas (i.e. Affective & Thinking, Pre-employment, Employment) are displayed in the graph below. This only includes students not assessed because evaluators indicated they did not have an opportunity to assess (students not assessed because they left prior to the assessment date are excluded). Overall, very small percentages of students were not assessed. Less than 1% were not assessed in the areas of Affective & Thinking and Employability strands, and 3.6% were not assessed in Pre-Employment skills.

Figure 13. Percent of Concentrators Not Assessed by WyCTA Content Area



### WyCTA Proficiency Levels by Content Areas

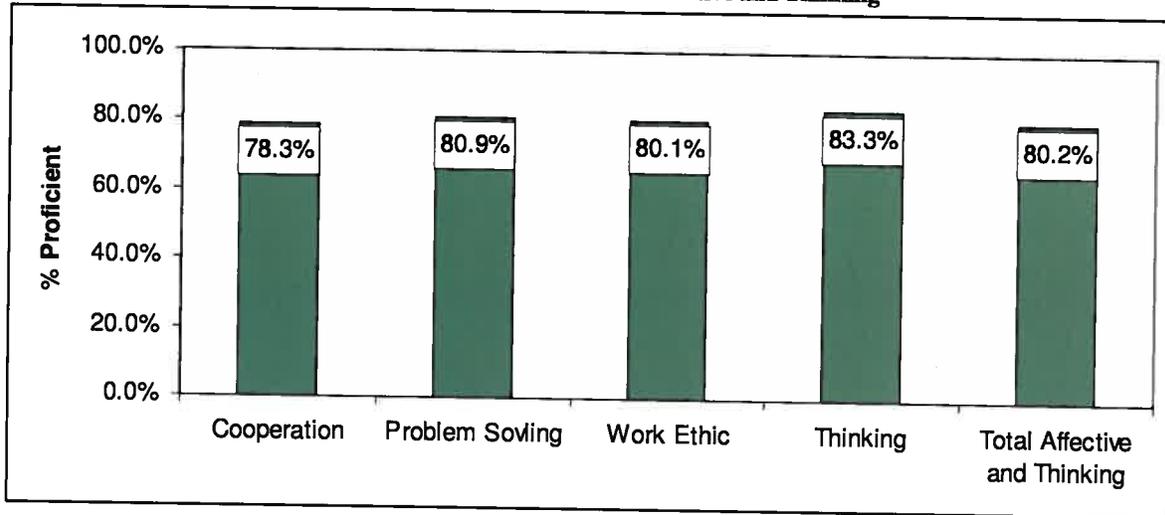
The following set of graphs display the percent of CTE concentrators who were proficient in each strand of a particular WyCTA content area. The previous two years' data (2007 and 2008) is also presented. These graphs help identify trends and areas of strength and weakness within each content area.

#### Summary of Results by Content Area

- The graphs on the following pages show that CTE concentrators were most proficient in the areas of Employability (84%). This is consistent with results from 2007-2008.
- Across the past three years, results for Total WyCTA proficiency have been relatively stable. Indeed, the only changes that occurred were a 1% increase in employability and a 1% decrease in pre-employment skills.

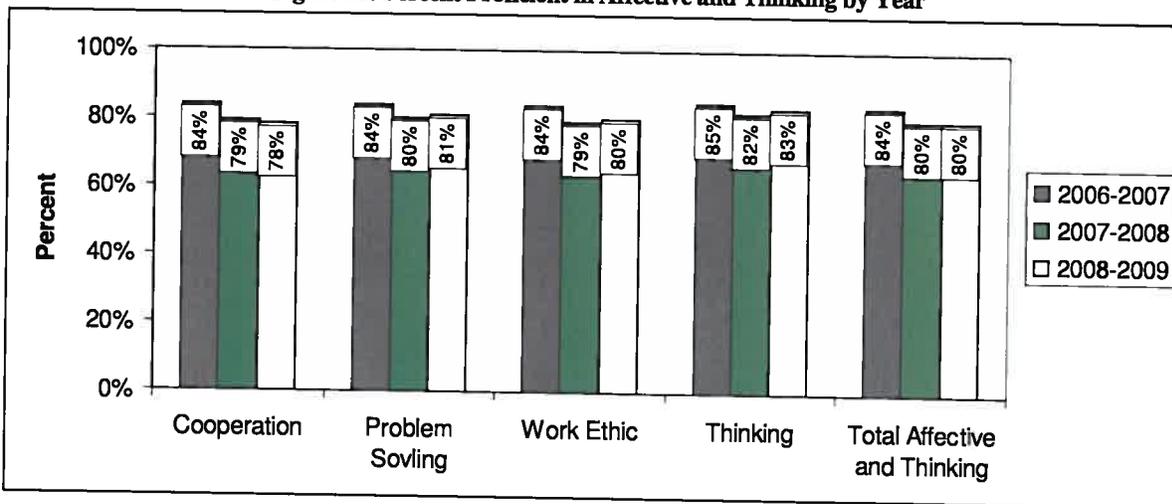
**Content Area: Affective and Thinking**

**Figure 14. Percent Proficient in Affective and Thinking**



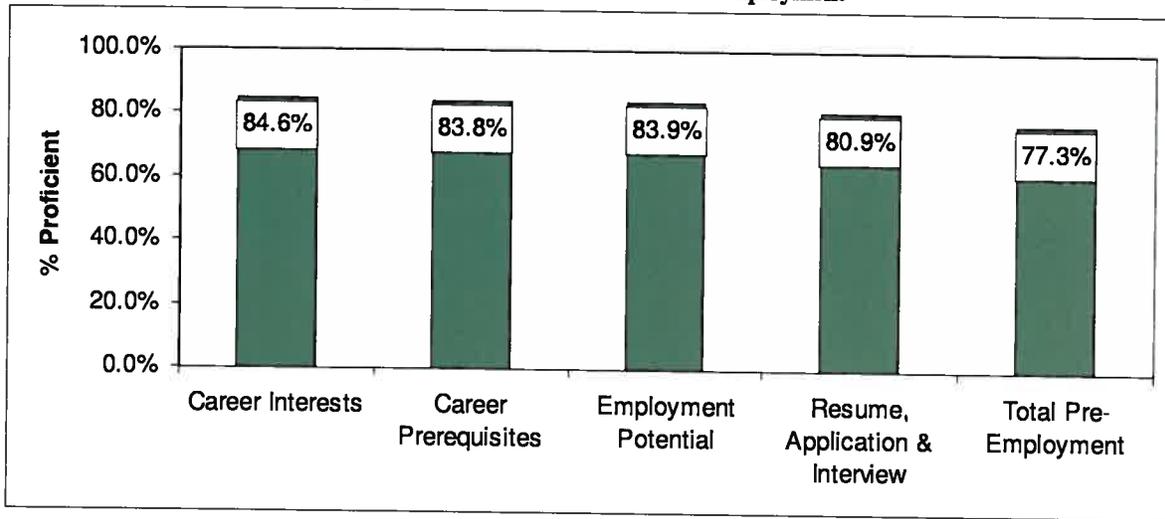
- Approximately 80.2% of students were proficient on the Affective & Thinking scale. This is the same as that obtained in 2007-2008.
- Although all strands were relatively close, students were most proficient (83.3%) in the thinking strand of the scale in 2008-2009.

**Figure 15. Percent Proficient in Affective and Thinking by Year**



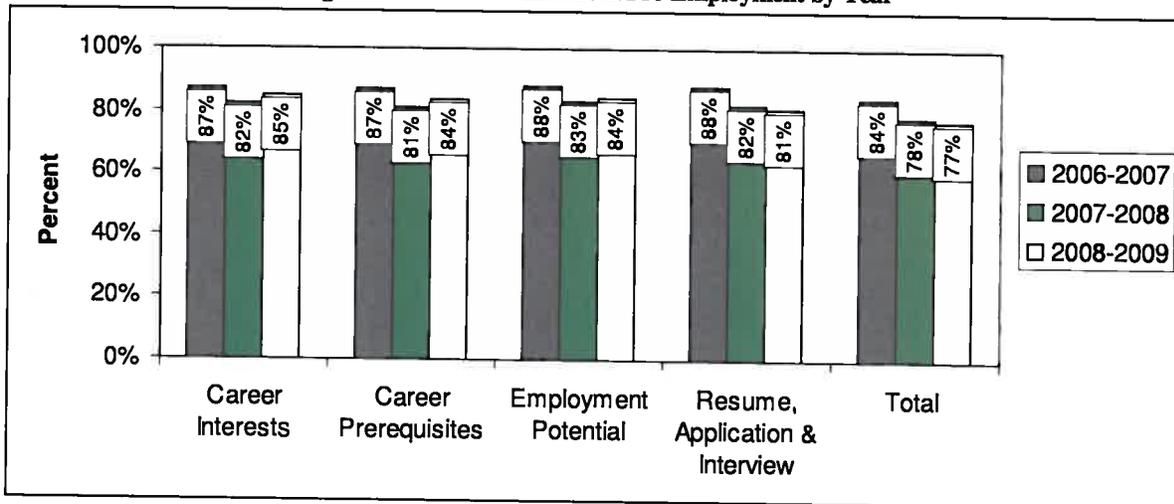
**Content Area: Pre-Employment**

**Figure 16. Percent Proficient in Pre-Employment**



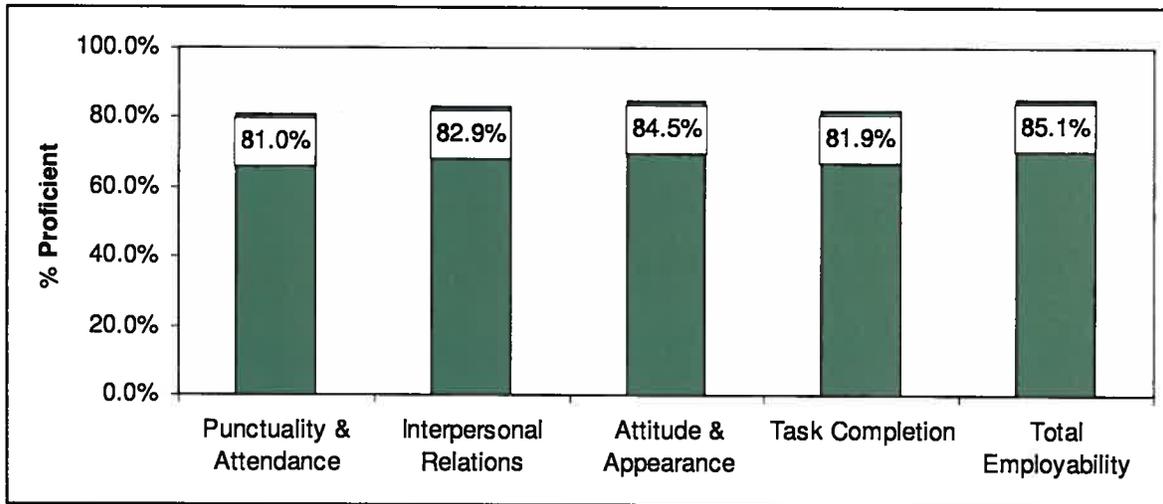
- Approximately 77% of students were proficient on the Pre-employment scale. This is a slight decrease (1%) in comparison to 2007-08.
- Students showed relatively similar proficiency levels (81%-85%) in all strands of the Pre-employment content area. Students were most proficient (85%) on the career interests strand.

**Figure 17. Percent Proficient in Pre-Employment by Year**



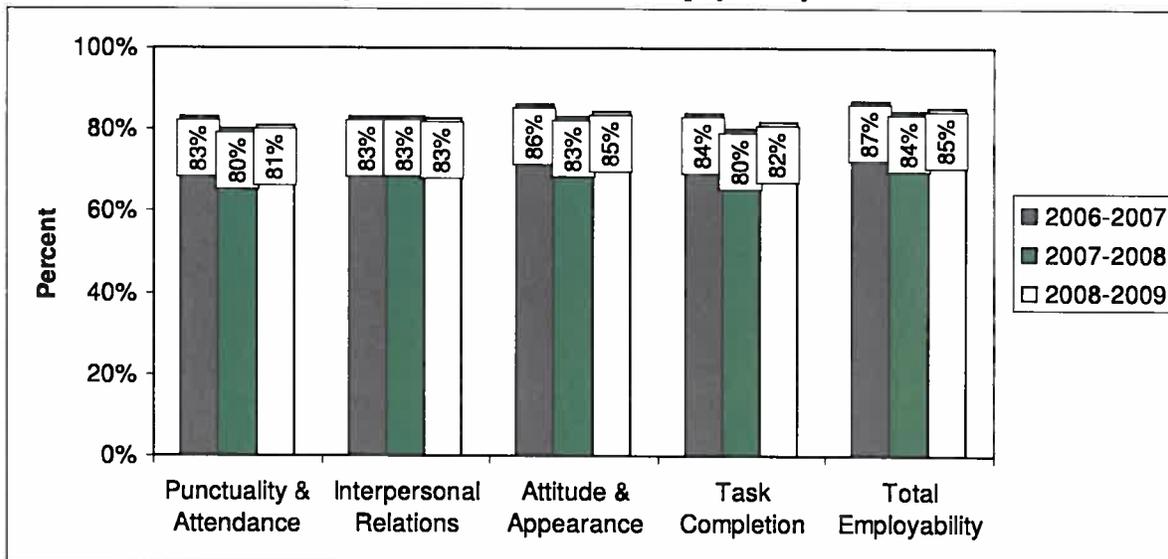
**Content Area: Employment**

**Figure 18. Percent Proficient in Employment**



- Approximately 85% of students were proficient on the Employment scale. This is a 1% increase from 2007-2008.
- Students were most proficient (85%) in the attitude/appearance strand of the Employment scale.

**Figure 19. Percent Proficient in Employment by Year**



**Indicator 2S1 by Subpopulations:**

Highlights of results for technical skill attainment by subpopulation include:

- The highest percentage of students meeting technical skill proficiency targets were Asian/Pacific Islander students (88.9%). American Indian students had the fewest (67.1%) proficient on the total WyCTA scale.
- Non-traditional CTE concentrators showed the highest proficiency level at 86.56%.

**Table 9. Indicator 2S1 Results by Subpopulations**

<b>(2S1) Technical Skill Attainment</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Male</b>	2,111	2,695	<b>78.33%</b>
<b>Female</b>	1,640	1,879	<b>87.28%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	53	79	<b>67.09%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	40	45	<b>88.89%</b>
<b>Black</b>	33	45	<b>73.33%</b>
<b>Hispanic</b>	268	333	<b>80.48%</b>
<b>White</b>	3,353	4,068	<b>82.42%</b>
<b>Other</b>	*	*	*
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	173	293	<b>59.04%</b>
<b>Economically Disadvantaged</b>	578	682	<b>75.95%</b>
<b>Single Parents</b>	122	147	<b>82.99%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	24	40	<b>60.00%</b>
<b>Migrant</b>	*	*	*
<b>Non-Traditional</b>	760	878	<b>86.56%</b>

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

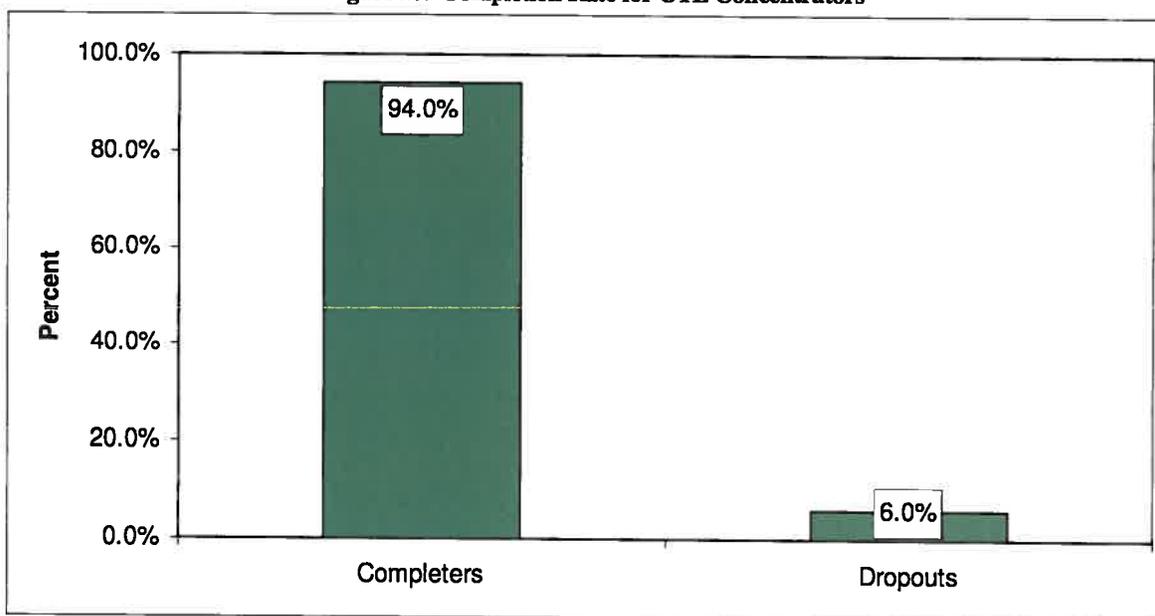
- An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

### **3S1 – Secondary School Completion**

The indicator is calculated by identifying CTE concentrators who were noted as earning a diploma or dropping out of secondary education during the reporting year (e.g., 2008-09). Students noted as receiving a diploma are included in the numerator while all students noted as leaving secondary education are included in the denominator.

Results show that 2,451 CTE concentrators left secondary education during the 2008-2009 school year. This included 2,304 completers and 147 dropouts. Thus, 94% of CTE concentrators who left secondary education earned a diploma during the 08-09 school year.

**Figure 20. Completion Rate for CTE Concentrators**



**Indicator 3S1 by Subpopulations:**

Results by subpopulations for indicator 3S1 show a higher percentage of students meeting the indicator. Highlights of the results shown in the table below include:

- More than 95% of females met indicator 3S1 as compared to 93% of males.
- For ethnicity subgroups, Black and Asian/Hawaiian/Pacific Islanders had the highest percentage of students meeting the indicator (96%). Hispanics (87%) showed the lowest completion rate.
- Single-parents and non-traditional enrollees (95%) had the highest completion rates.

**Table 10. Indicator 3S1 Results by Subpopulations**

<b>(3S1) Secondary School Completion</b>			
	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Gender</b>			
<b>Male</b>	1,318	1,414	<b>93.21%</b>
<b>Female</b>	986	1,037	<b>95.08%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	45	49	<b>91.84%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	22	23	<b>95.65%</b>
<b>Black</b>	22	23	<b>95.65%</b>
<b>Hispanic</b>	152	174	<b>87.36%</b>
<b>White</b>	2,060	2,177	<b>94.63%</b>
<b>Other</b>	*	*	*
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	149	167	<b>89.22%</b>
<b>Economically Disadvantaged</b>	308	355	<b>86.76%</b>
<b>Single Parents</b>	76	80	<b>95.00%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	23	29	<b>79.31%</b>
<b>Migrant</b>	*	*	*
<b>Non-Traditional</b>	452	477	<b>94.76%</b>

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

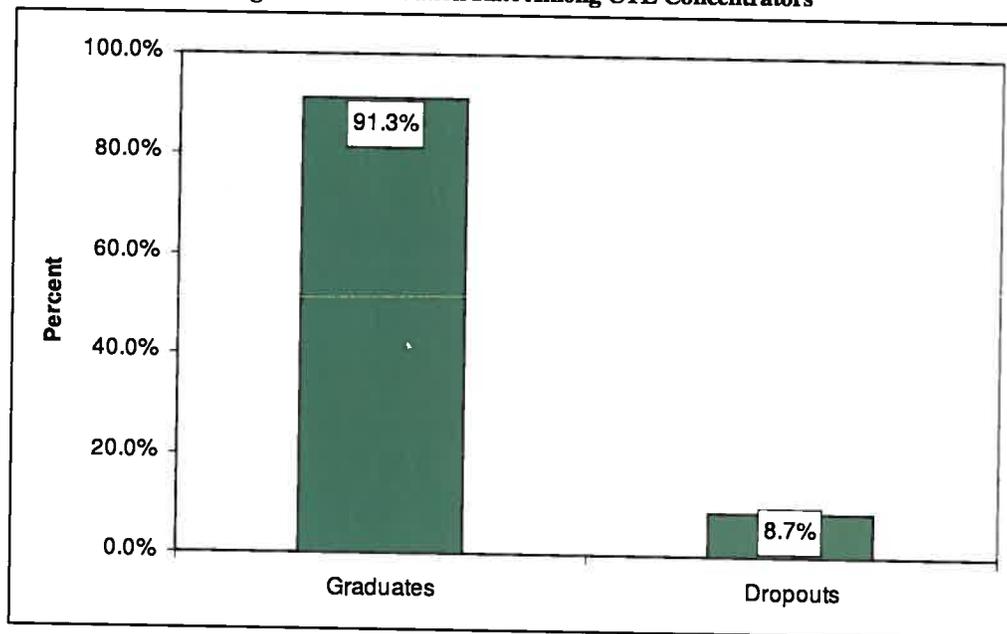
\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

### **4S1 – Student Graduation Rates**

To calculate indicator 4S1, graduation and dropout data was obtained from the Wyoming Department of Education and matched with identified CTE concentrators who in the reporting year, were included as graduated in the State's computation of its graduation rate as described in Section 1111(b)(2)(C)(vi) of the ESEA. This indicator varies from 3S1 in that the cohort of CTE concentrators used in the calculation of this indicator consists of last year's graduates. This is consistent with how the WDE calculates and reports graduation rates under NCLB for the reporting year.

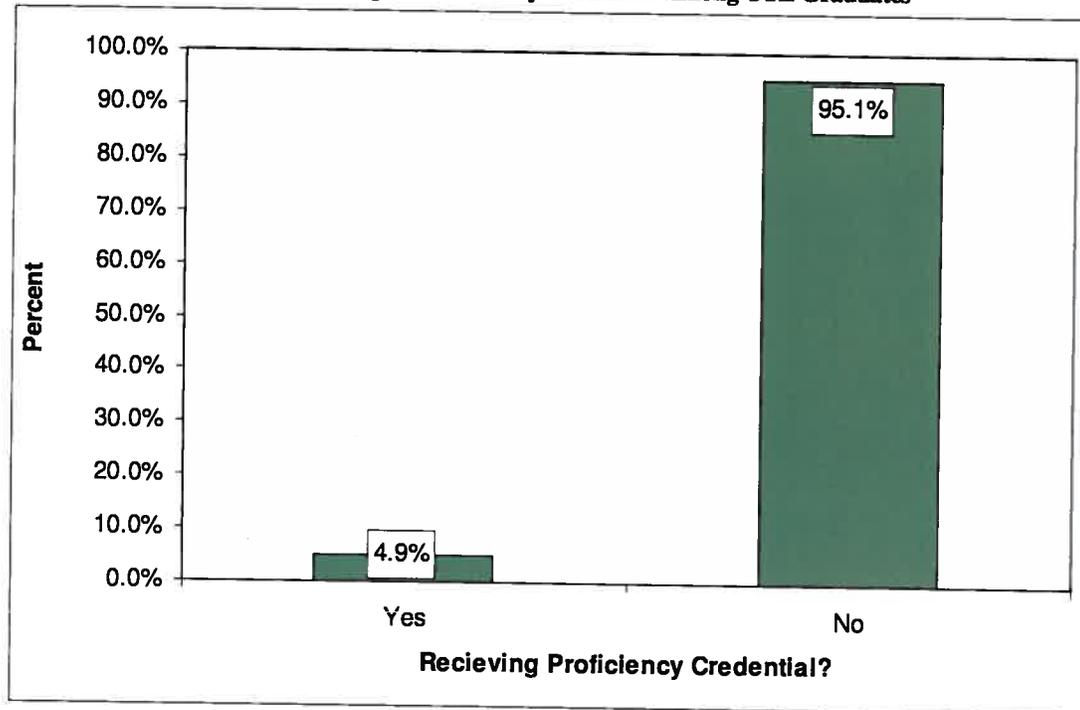
For 2008-2009, 91.3% (2,775 out of 3,039) of eligible CTE concentrators were reported as graduating as compared to 8.7% who were noted as dropping out.

**Figure 21. Graduation Rate Among CTE Concentrators**



Among CTE concentrators who graduated, 4.9% were eligible to receive or received a proficiency credential.

**Figure 22. Receipt of Proficiency Credential Among CTE Graduates**



The types and amounts of proficiency credentials awarded were consistent with past years. The majority of proficiency credentials or certificates awarded to Wyoming students are in the health field (184 individual certificates awarded).

- ❖ CNA//CPR/1<sup>st</sup> Responder/NA (184)
- ❖ Diploma/Certificate Unspecified (4)
- ❖ Microsoft Office Specialist (17)
- ❖ ProStart Certification (19)
- ❖ OSHA (18)
- ❖ ServSafe (15)
- ❖ Unknown (4)
- ❖ CISCO (3)
- ❖ NCEER (12)
- ❖ AWS Welding (4)
- ❖ SolidWorks/CAD (3)
- ❖ Web Authoring (1)
- ❖ Auto Mechanic (1)
- ❖ Tech Ed (1)

**Indicator 4S1 by Subpopulations:**

Results for indicator 4S1 by subgroups of gender, ethnicity and special populations are shown in the table below. Highlights of these results include:

- Overall, females showed higher graduation rates (93.91%) than males (89.46%).
- Asian/Hawaiian/Pacific Islander students had the highest rate with 100% of CTE concentrators graduating.
- Examination of special populations showed that students in non-traditional programs had the highest proportion of concentrators who graduated (96.39%), while students with Limited English Proficiency and Disabilities constituted the lowest percentage of concentrators who graduated (85.42% and 85.41%).

**Table 11. Indicator 4S1 Results by Subpopulations**

<b>(4S1) Student Graduation Rates</b>			
	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Gender</b>			
<b>Male</b>	1,588	1,775	89.46%
<b>Female</b>	1,187	1,264	93.91%
<b>Ethnicity</b>			
<b>American Indian</b>	50	60	83.33%
<b>Asian/ Hawaiian/Pacific Islander</b>	23	23	100.00%
<b>Black</b>	23	26	88.46%
<b>Hispanic</b>	193	218	88.53%
<b>White</b>	2,484	2,710	91.66%
<b>Other</b>	*	*	*
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	158	185	85.41%
<b>Economically Disadvantaged</b>	433	512	84.57%
<b>Single Parents</b>	79	89	88.76%
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	41	48	85.42%
<b>Migrant</b>	0	0	NA
<b>Non-Traditional</b>	374	388	96.39%

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

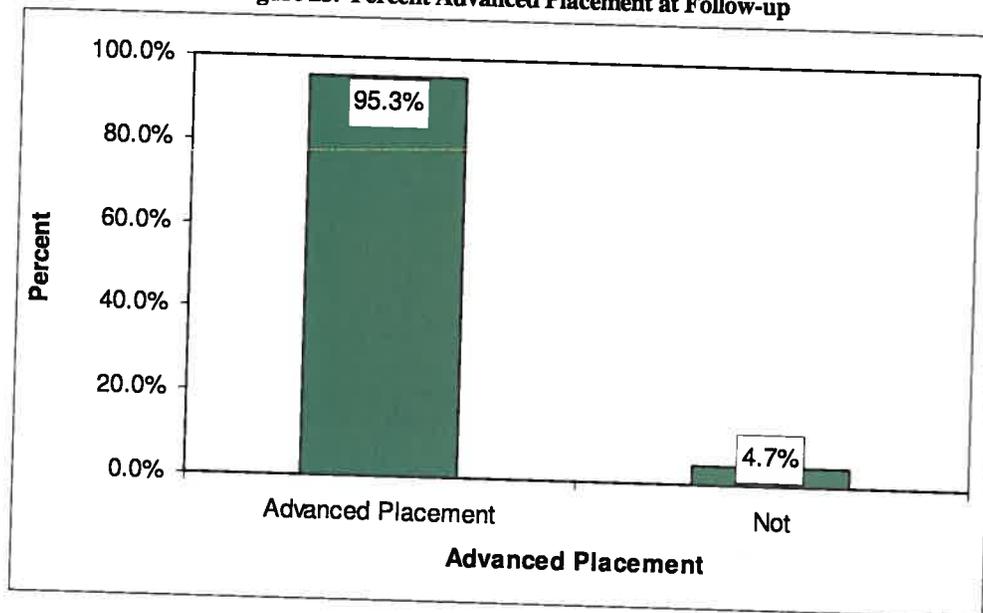
\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

### **5S1 – Secondary Placement in employment, post-secondary/advanced education, or the military at follow-up**

Under Perkins IV guidelines, follow-up data was required to be collected during the second quarter of the year (e.g., between October 1, 2008 to December 31, 2008 for students leaving secondary education in the 2007-08 school year). Furthermore, contrary to Perkins III, data was collected on all students who leave secondary education, not only graduates. CTE concentrators who left secondary education during the prior year and were followed up are included in the calculation of this indicator (students for which follow-up was not completed are excluded).

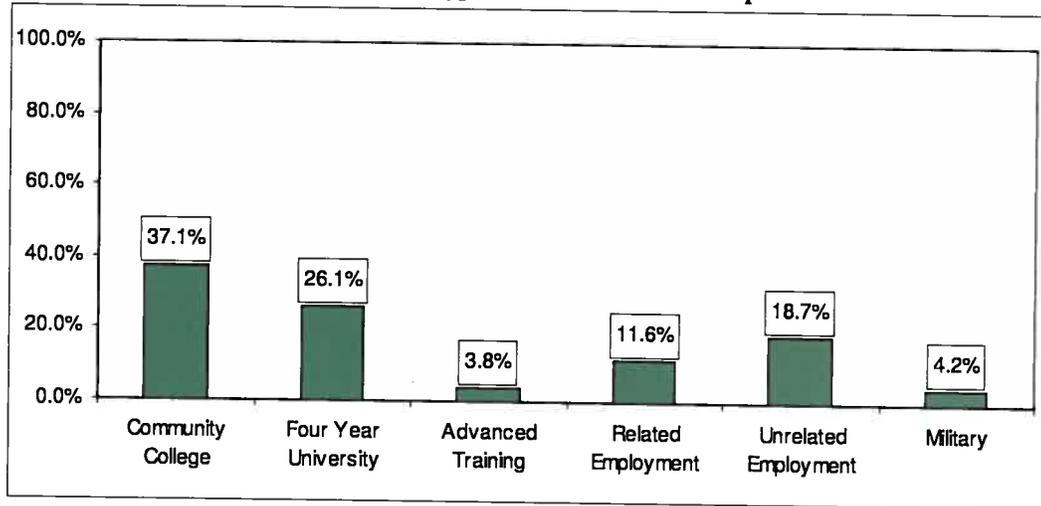
The following graph shows the percent of students in Advanced Placement (i.e. employment, post-secondary education, advanced training, or military) after leaving secondary education. Data was collected the second quarter of 2008 on 2,337 students who had left secondary education in 2007-2008. As shown, 95.34% of students were in advanced placement during the second quarter. This is comparable to the prior year's placement result of 97%.

**Figure 23. Percent Advanced Placement at Follow-up**



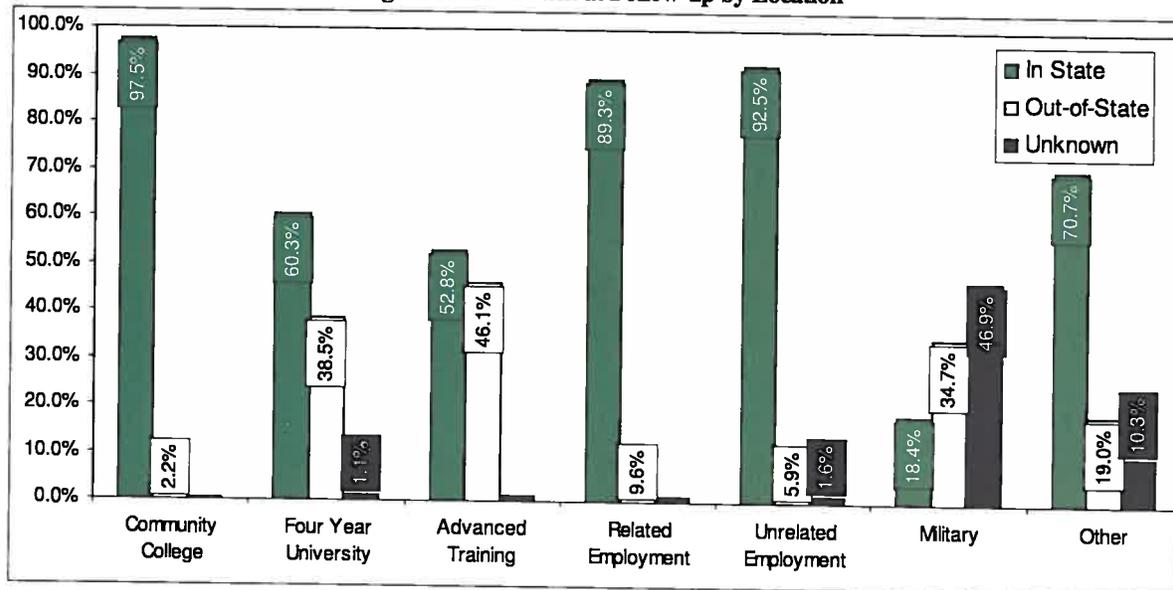
The majority of students were enrolled in community college (37.1%) or four-year university (26.1%) after leaving secondary education. Additionally, 30.3% were employed with 11.6% in employment related to their CTE and 18.7% in unrelated employment. The fewest students were in advanced training (3.8%) and the military (4.2%).

Figure 24. Type of Placement at Follow-up



Generally, students were located in Wyoming at follow-up. Follow-up students most likely to be located out of state were in advanced training, a four year university or in the military.

Figure 25. Placement at Follow-up by Location



**Indicator 5S1 by Subpopulations:**

Results by the subpopulations of gender, ethnicity and special populations are shown in the table below. Highlights of these results include:

- The percent of males and females in advanced placement were similar at 95%
- Hispanics, Asians, and Whites showed the highest rates for advanced placement.
- Among subgroups, non-traditional enrollees showed the highest placement rates (95%) while LEP students showed the lowest (84%)

**Table 12. Indicator 5S1 Results by Subpopulations**

<b>(5S1) Placement</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students Meeting Indicator</b>
<b>Male</b>	1,273	1,335	<b>95.36%</b>
<b>Female</b>	953	1,002	<b>95.11%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	36	43	<b>83.72%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	20	21	<b>95.24%</b>
<b>Black</b>	14	15	<b>93.33%</b>
<b>Hispanic</b>	135	141	<b>95.74%</b>
<b>White</b>	2,010	2,106	<b>95.44%</b>
<b>Other</b>	11	11	<b>100.00%</b>
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	122	132	<b>92.42%</b>
<b>Economically Disadvantaged</b>	329	361	<b>91.14%</b>
<b>Single Parents</b>	57	63	<b>90.48%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	31	37	<b>83.78%</b>
<b>Migrant</b>	*	*	*
<b>Non-Traditional</b>	367	386	<b>95.08%</b>

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

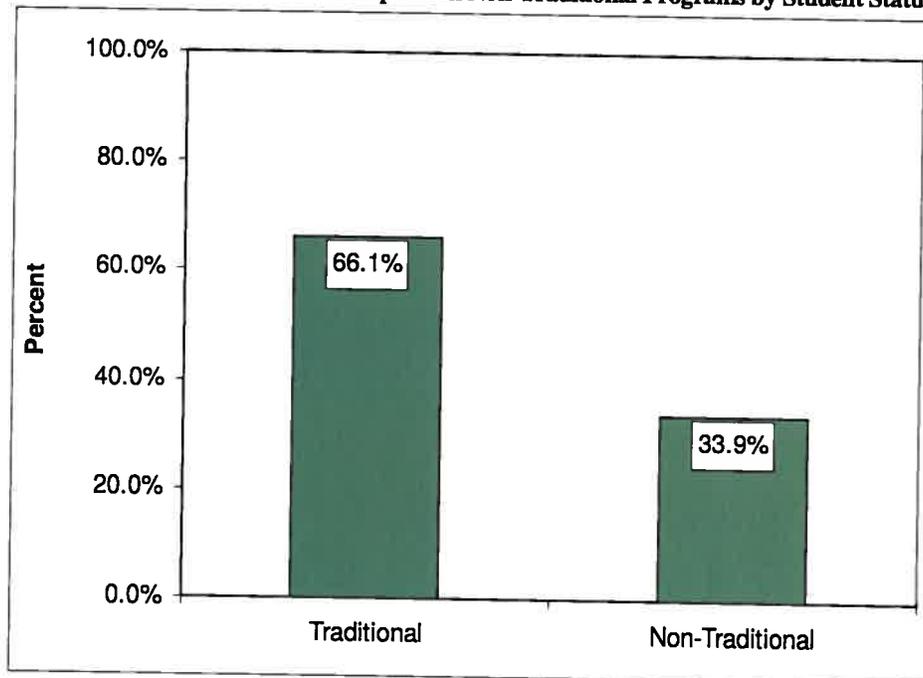
\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

## 6S1 – Non-Traditional Participation

To calculate non-traditional CTE participation rates, data from the CTE Participant data table in the WyCTA database was analyzed. This data table required schools to report information on counts of CTE participants by CIP code and subpopulations. The total number of participants who were in a non-traditional occupational field (as determined by CIP code provided) were then counted. Note that the latest non-traditional guidelines were used to determine fields that are considered non-traditional for each gender. For example, nursing is a non-traditional male profession while engineering is a non-traditional female profession. Participants whose gender matches those in a non-traditional program (e.g. females pursuing an engineering field) are considered non-traditional participants whereas participants whose gender does not match a non-traditional program (e.g. a male pursuing an engineering field) are considered traditional participants.

For the 2008-2009 reporting year, **approximately 33.9% of students in non-traditional programs were in under-represented gender groups**. This figure is slightly lower than last year's result of 35.9%.

Figure 26. Percent of CTE Participants in Non-Traditional Programs by Student Status



**Indicator 6S1 by Subpopulations:**

Results for indicator 6S1 are reported by subgroup in the table below. Data by gender, ethnicity and special populations is included. Key findings from these results include:

- A significant difference in results by gender was observed. While 90.35% of female students participated in a non-traditional program, only 2.80% of males did so.
- Results by ethnicity were fairly comparable with the highest percent of students participating in a non-traditional program being Hispanic (37.20%) and Asian/Hawaiian/Pacific Islander (37.18%).
- Limited English Proficient students had the highest rates of non-traditional participation. (39.61%)

**Table 13. Indicator 6S1 Results by Subpopulations**

<b>(6S1) Non Traditional Participation</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students</b>
<b>Male</b>	164	5,862	<b>2.80%</b>
<b>Female</b>	2,931	3,244	<b>90.35%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	92	339	<b>27.14%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	29	78	<b>37.18%</b>
<b>Black</b>	21	77	<b>27.27%</b>
<b>Hispanic</b>	282	758	<b>37.20%</b>
<b>White</b>	2,664	7,847	<b>33.95%</b>
<b>Other</b>	*	*	*
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	162	712	<b>22.75%</b>
<b>Economically Disadvantaged</b>	598	1,659	<b>36.05%</b>
<b>Single Parents</b>	56	178	<b>31.46%</b>
<b>Displaced Homemakers</b>	*	*	*
<b>Limited English Proficient</b>	61	154	<b>39.61%</b>
<b>Migrant</b>	*	*	*

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

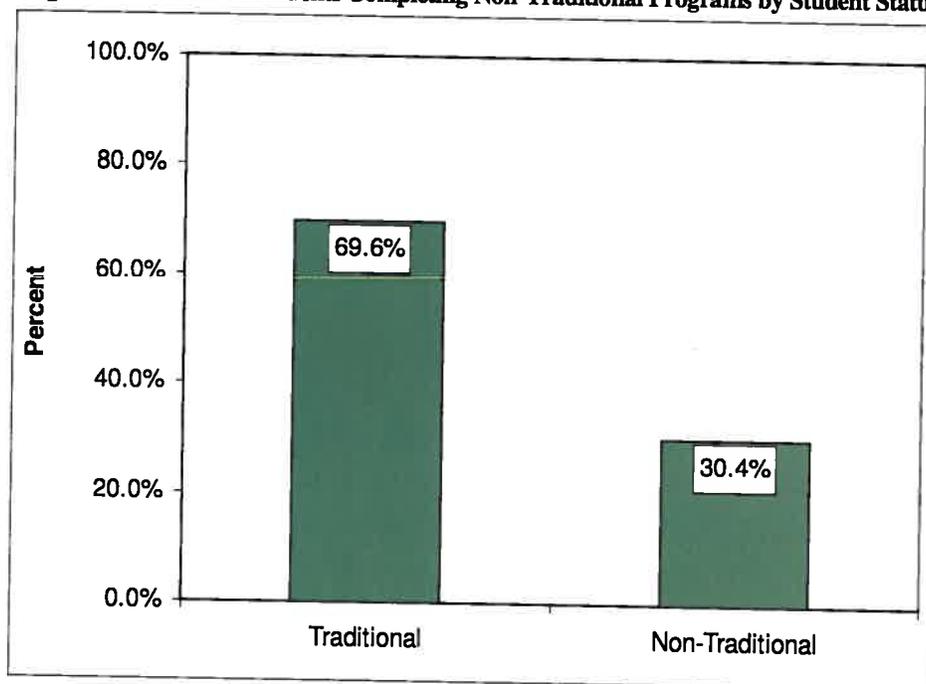
An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

## **6S2 – Non-traditional Completion**

In order to calculate the non-traditional completion indicator, CTE concentrators who completed a non-traditional program during the reporting year were identified. The total number of concentrators in a non-traditional field (as determined by CIP code provided) was determined using the latest guidelines for occupational fields that are considered non-traditional for each gender. This is compared to each concentrator's gender to determine if a concentrator is a non-traditional student (see description of indicator 6S1 for examples).

Approximately 30.4% of students completing a non-traditional program were non-traditional students. This represents an increase compared to 2007-2008 results of 28.3%.

**Figure 27. Percent of Students Completing Non-Traditional Programs by Student Status**



**Indicator 6S2 by Subpopulations:**

Overall results by subpopulations are reported in the following table. Highlights of these results include:

- Similar to indicator 6S1, a significant difference in results by gender is observed. While 88% of female concentrators completed a non-traditional program, only 1.8% of males did so.
- Results by ethnicity ranged from 26% among American Indians to 40% among Asian/Hawaiian/Pacific Islanders.
- Single Parents showed the highest completion rates in programs (38.71%).

**Table 14. Indicator 6S2 Results by Subpopulations**

<b>(6S2) Non Traditional Completion</b>			
<b>Gender</b>	<b># of Students in Numerator</b>	<b># of Students in Denominator</b>	<b>Percent of Students</b>
<b>Male</b>	13	714	<b>1.82%</b>
<b>Female</b>	311	353	<b>88.10%</b>
<b>Ethnicity</b>			
<b>American Indian</b>	6	23	<b>26.09%</b>
<b>Asian/ Hawaiian/Pacific Islander</b>	4	10	<b>40.00%</b>
<b>Black</b>	*	*	*
<b>Hispanic</b>	21	75	<b>28.00%</b>
<b>White</b>	293	957	<b>30.62%</b>
<b>Other</b>	0	0	<b>NA</b>
<b>Special Populations</b>			
<b>Individuals With Disabilities</b>	13	79	<b>16.46%</b>
<b>Economically Disadvantaged</b>	47	148	<b>31.76%</b>
<b>Single Parents</b>	12	31	<b>38.71%</b>
<b>Displaced Homemakers</b>	0	0	<b>NA</b>
<b>Limited English Proficient</b>	*	*	*
<b>Migrant</b>	*	*	*

NR: Not Reported means that there were no concentrators, completers or participants reported in this category.

\* An asterisk means that there were less than 10 concentrators, completers or participants reported in this category.

## CTSO Participation

Approximately 25.4% of CTE concentrators (unduplicated N=1,185) participated in a CTSO during the 2008-2009 school year. This represents a slight increase in the percentage of students participating in CTSO as compared to 25% in 2007-08. The highest percent of concentrators participating in CTSO were members of FFA (47.9%), and this is consistent with past years. There was a small increase in DECA participation from 7.7% for 2007-2008 to 9.7% in 2008-2009.

**Table 15. CTSO Participation by Organization**

Organization	Count*	Percent
FFA	623	47.9%
USA-VICA	200	15.4%
FBLA	189	14.5%
FCCLA	163	12.5%
DECA	126	9.7%
<b>Total</b>	<b>1301</b>	<b>100.0%</b>

\*Students may have participated in more than one CTSO.

The following graphs shows the percent of students proficient on WyCTA content areas assessed during the 2008-2009 school year by CTSO participation.

Key findings include:

- During the 2008-2009 school year, CTE concentrators who participated in CTSO had higher overall WyCTA proficiency (87.4%) than those who did not participate in CTSO (79.9%).
- Higher proficiency among CTSO participants was observed for all three of the WyCTA content areas assessed: Affective & Thinking, Pre-employment and Employability.

Figure 28. Proficiency on Total WyCTA Scale by Participation in CTSO

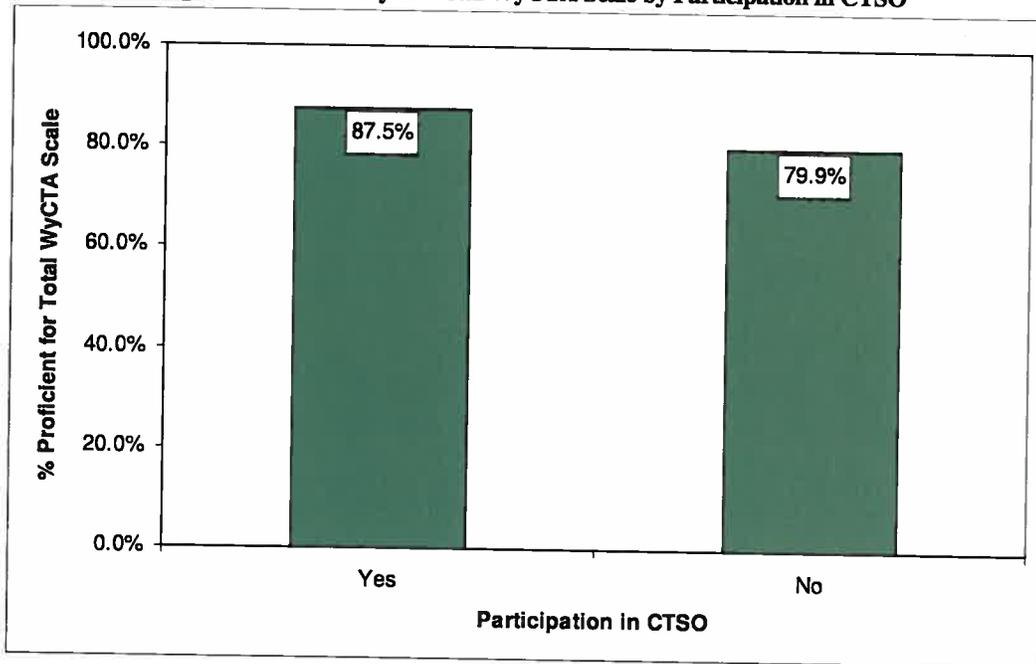
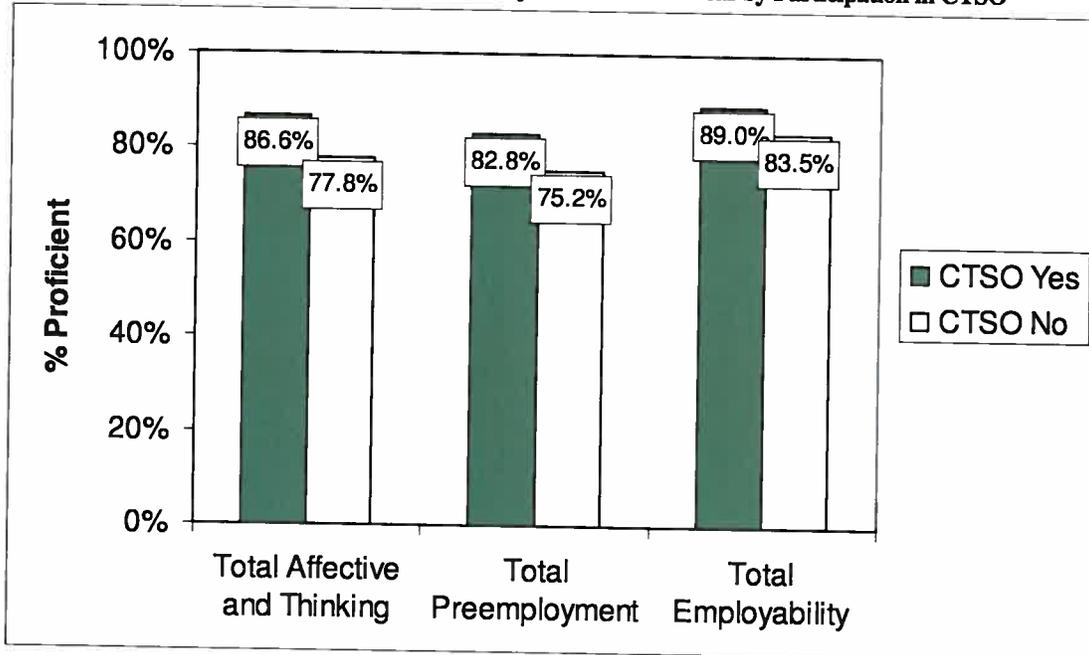


Figure 29. Proficiency on Individual WyCTA Content Areas by Participation in CTSO



## CTE Programs at Wyoming Schools

### CTE Courses Offered by Career Cluster

School level data was collected on the courses offered in each of the 16 career cluster/program areas. The following table shows the number of schools that reported offering a course(s) in each program area. The top 3 program areas offered by most schools are Architecture and Construction, Business Administration, and Information Technology. In 2008-2009 no schools offered courses in Government and Public Administration and Law and Public Safety.

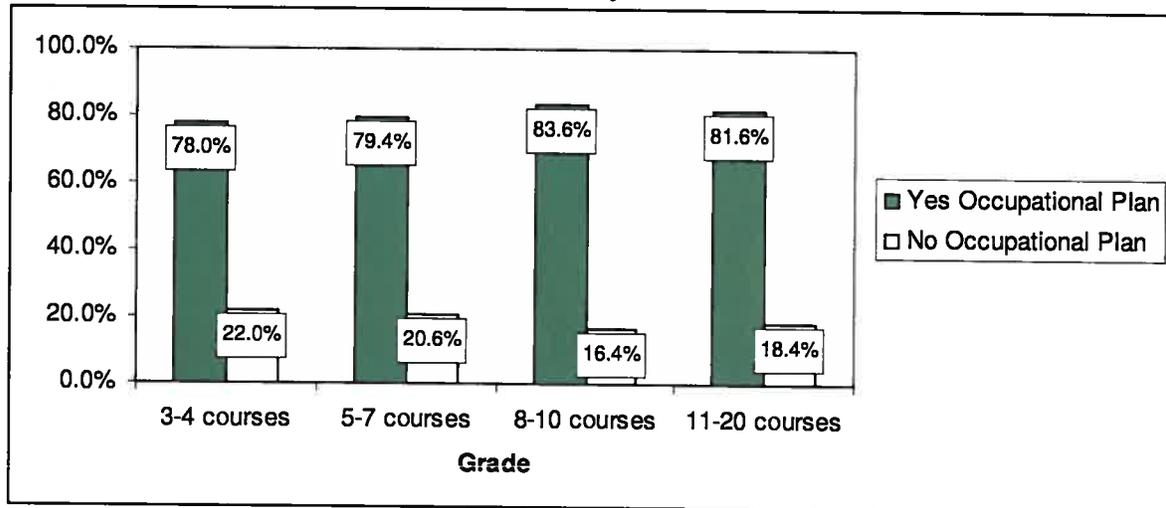
Table 16. CTE Courses by Career Cluster

Program Area	# Schools reporting	Percent of Schools
Arch and Construction	51	76.1%
Business Administration	44	65.7%
Information Technology	42	62.7%
Agriculture Natural Resources	41	61.2%
Hospitality and Tourism	41	61.2%
Manufacturing	38	56.7%
Human Services	22	32.8%
Transportation, Distribution and Logistics	22	32.8%
Arts, AV Tech and Communication	18	26.9%
Health Science	12	17.9%
Retail and Whole Sales	10	14.9%
Science Research and Engineering	8	11.9%
Finance	6	9.0%
Education and Training	5	7.5%
Gov and Public Administration	0	--
Law and Public Safety	0	--

### Occupational Plan by Length of Program

During 2008-2009, 3690 reporting CTE concentrators (79.0%) had an occupational plan. Results showed that generally there is a positive relationship between length in the program area and the likelihood of having an occupational plan. That is, the more courses a student has completed, the more likely they are to have an occupational plan.

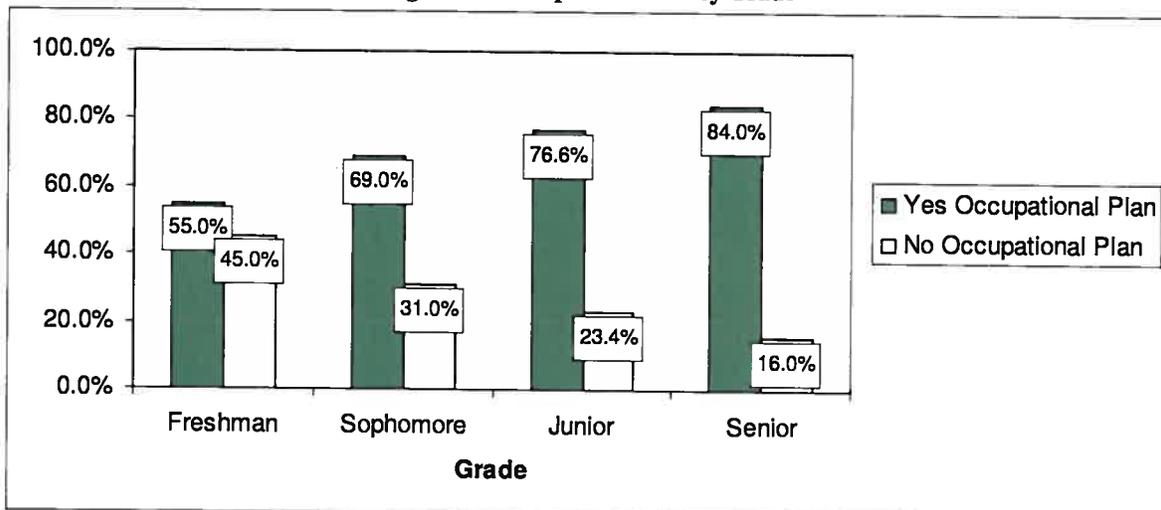
**Figure 30. Occupational Plan by Number of Courses Taken**



### Occupational Plan by Grade

Senior CTE concentrators were most likely to have an occupational plan while only 55% of Freshman students had an occupational plan. Again, this is to be expected as students have a greater opportunity to have an occupational plan as they progress in their schooling. Overall percentages of students at each grade level with occupational plans are consistent with results from 2007-2008.

**Figure 31. Occupational Plan by Grade**



### Participation in Job Training & Work Based Learning

The table below shows results for the types of job training activities CTE concentrators participated in. Job shadowing was the most common form of job training (30.5%) followed by work-experience internship (24.5%).

**Table 17. Job Training by Type**

Job Training Type	Count*	Percent
Job Shadowing	1111	30.51%
Work-experience internship	891	24.47%
Community service learning	777	21.34%
School-based enterprises	339	9.31%
Mentorship	246	6.76%
Other**	137	3.76%
Cooperative Education	108	2.97%
Apprenticeship	32	0.88%

\*Students may have participated in more than one activity.

\*\*Other types of job training specified included:

- Real Life Game (37)
- Career fair (35)
- On job training (9)
- Clinical Experience (13)
- Jr. Interview (26)
- Work Keys (16)

## Integrated Instruction

Information on integrated instruction was also collected from secondary schools during the 2008-2009 school year. Schools were asked to describe the methods they use to provide integrated instruction to students. Schools reported a varied number of ways that they integrate CTE and academic instruction, however several themes emerged. In particular, as described in the following table, schools noted that they integrate instruction at multiple levels, including at the CTE level, Academic level and/or Teacher level. That said, it was also noted by several schools that academic teachers find it more difficult to incorporate career and technical aspects into their curriculum. Integration was much more likely to take place in CTE classes.

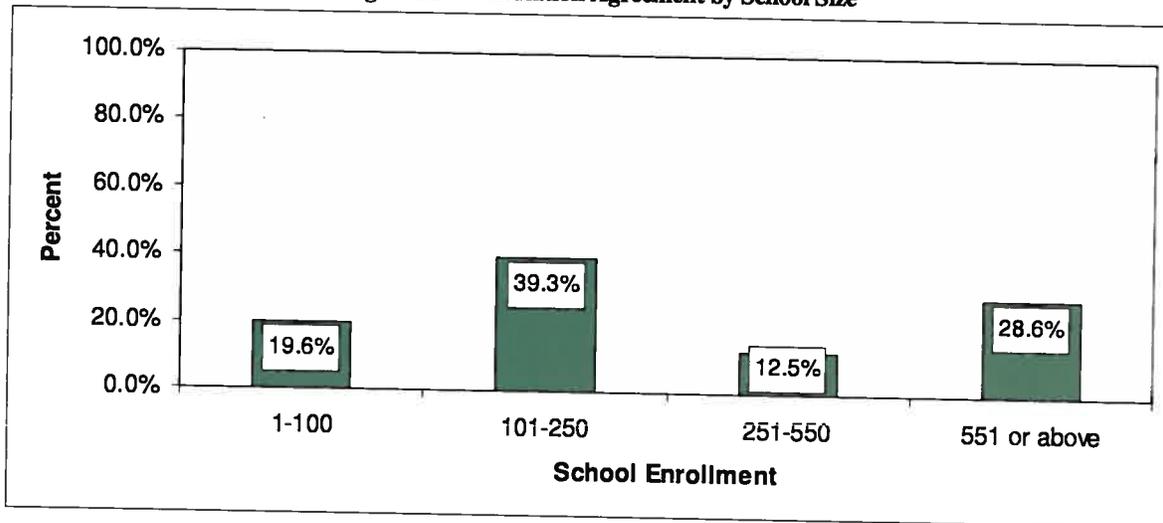
**Table 18. Integrated Instruction Activities**

CTE Level Integration	Academic Level Integration	Teacher Level Integration
<ul style="list-style-type: none"> <li>○ CTE classes incorporate reading and math in specific lessons. (examples included “profit projections, cash flow and loan payment schedule lessons in business classes, technical writing related to agriculture, etc).</li> <li>○ Writing is required in a majority of CTE courses including journal keeping, report writing, and research writing.</li> </ul>	<ul style="list-style-type: none"> <li>○ English classes incorporate resume writing and career writing opportunities.</li> <li>○ Discussion and application of “real world” concepts in math and science classes.</li> <li>○ Word processing and computer skills are incorporated in academic classes.</li> </ul>	<ul style="list-style-type: none"> <li>○ Teachers participate in groups that include a mix of CTE and academic teachers. They work together on various assessment and curriculum planning goals.</li> <li>○ Team teaching of units between CTE and Academic teachers.</li> </ul>

### Articulation Agreements and Coordination with Postsecondary Institutions

Data was collected on articulation agreements from 67 secondary schools. Of these schools, 83.6% (n=56) reported having an articulation agreement in place with one or more Wyoming community college. Schools with enrollment between 101-250 students had the most existing articulation agreements with 39.3%. This is expected given that there are many schools with enrollment in that range within the state.

**Figure 32. Articulation Agreement by School Size**



As would be expected, there is a direct relationship between school size and number of students enrolled in concurrent enrollment classes. Larger schools with enrollment of 251 and above have a greater number of students, on average, taking concurrent enrollment courses. This is to be expected as larger schools have more students who can participate in concurrent enrollment classes.

**Table 19. Students Taking Concurrent Enrollment**

School Size	Students Enrolled in Concurrent Enrollment Classes		
	Minimum	Maximum	Average
1-100	0	92	14
101-250	0	180	37
251-550	0	205	70
551 and above	28	686	316

Secondary schools had articulation agreements with a variety of Wyoming colleges. Northwest (17) and Sheridan (15) Colleges had the greatest number of articulation agreements with schools. All other community colleges had between 6 and 10 schools with articulation agreements.

**Table 20. Number of High Schools with Articulation Agreements by College**

Community College	# of High Schools with Articulation Agreements*
Northwest College	17
Sheridan College	15
Eastern Wyoming Community College	10
Western Wyoming College	10
Central Wyoming Community College	9
Laramie County Community College	8
Casper Community College	6

\*Schools may have had articulation agreements with more than one community college

Schools reported brief descriptions of their articulation process for concurrent enrollment (also referred to by some schools as “dual enrollment”) classes. Generally, the following activities take place to make courses available for dual credit:

- Once a course is selected, the syllabus is aligned by the high school to fit the requirements of both the high school and college.
- Teachers instruction of concurrent high school courses and course syllabi must be approved by the college.
- Teachers collaborate with the colleges (instructors and department heads) on curricula content, methods, and skills.
- Ongoing communication between the high schools and colleges take place. Types of communication include: 1) regular yearly or semester meetings between high school and college staff; 2) site visits to concurrent classrooms for observation and feedback; 3) regular phone and/or email communications between college and high school staff.

Secondary schools noted that the following courses were offered as concurrent enrollment classes (#s reflect number of schools reporting course).

- English-24
- Computer applications/desktop publishing/keyboarding-21
- Accounting-16
- Health/emergency care/nursing-15
- Drawing/painting/sculpture/art/design/ceramics-14
- Web design/development/authoring-13
- Welding-13
- CAD-11
- Computer Technology (CIS)-11
- Algebra-10
- Auto Mechanics-10
- Calculus-10
- Math-10
- Microsoft Office-10
- Government-9

- Trigonometry-9
- Drafting-8
- Agriculture-7
- Biology-7
- Buisness/Investment/Accounting-7
- Electronics/Robotics/Multimedia-7
- French-7
- Psychology-7
- Spanish-7
- Culinary arts/Baking-6
- Chemistry-5
- Communications/Speech-5
- History/Art History-5
- Construction/carpentry-4
- Discovery science-4
- Prostat-4
- Early childhood-3
- Human Anatomy &Physiology-3
- Music/band-3
- Photography/Graphics-3
- Athletics-2
- CISCO-2
- Economics-2
- Geology-2
- Physics-2
- Sociology-2
- Statistics-2
- Zoology-2
- CMAP-1
- Entrepreneurship-1
- German-1
- Hospitality/Tourism-1
- Reading-1
- Sign Language-1
- Weight training-1

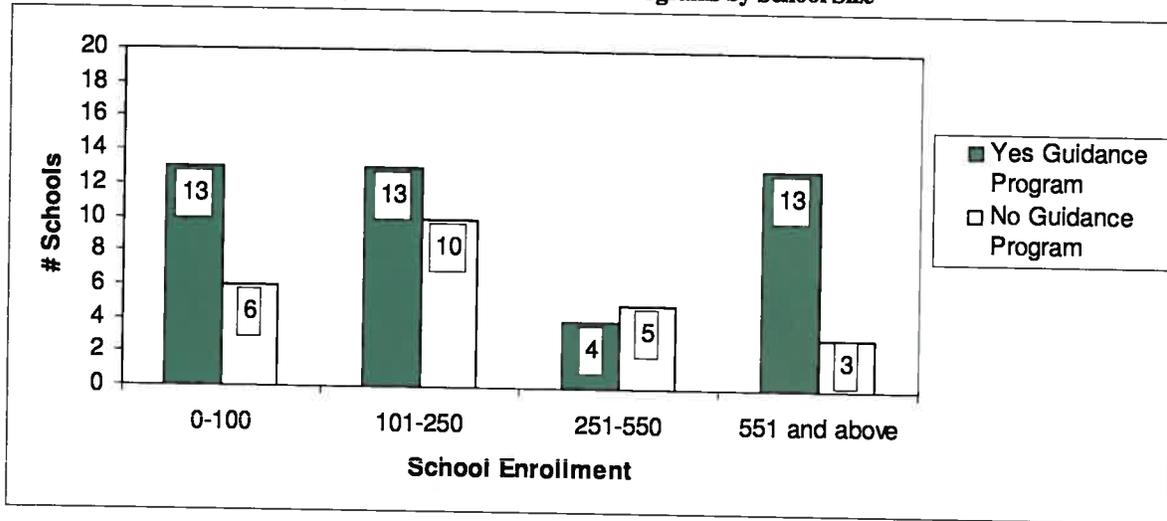
### **Students in Concurrent Enrollment:**

In addition to data collected from schools, information on concurrent enrollment was also reported for CTE concentrators. Among CTE concentrators, 1,595 (34.6%) were enrolled in one or more courses where they were eligible to earn concurrent enrollment credit.

### Career Guidance and Advising Programs

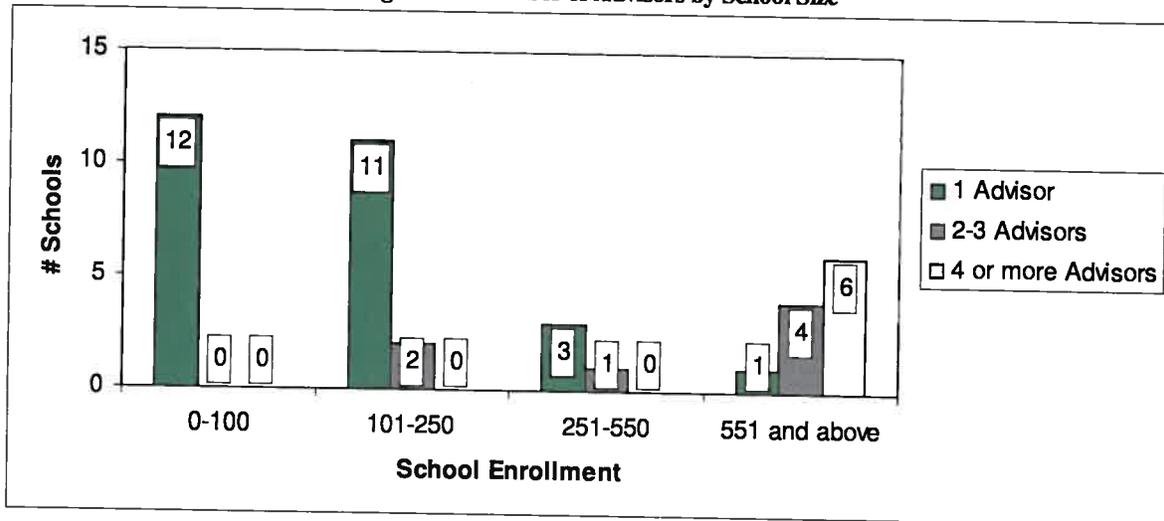
Overall, 64.2% (n=43) of reporting schools indicated that they have a formal guidance program in place at their school. The figure below shows how many schools had guidance programs broken out by school size. Medium size schools with enrollment of 251-550 were less likely to have a formal guidance program in place.

Figure 33. Career Guidance Programs by School Size



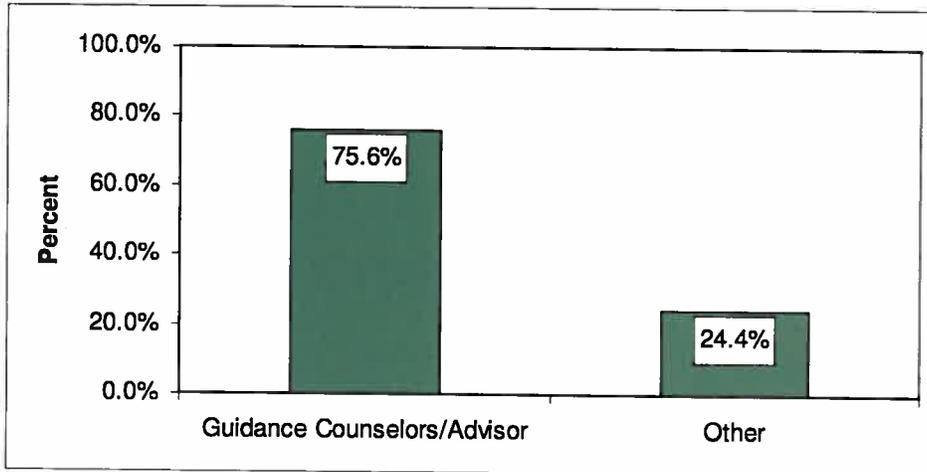
Additionally, the vast majority of schools with formal guidance/advising programs had one designated advisor. Only schools with enrollment of 551 or above had 4 or more advisors.

Figure 34. Number of Advisors by School Size



Guidance was mainly provided to students by guidance counselors or advisors (75.6%). The remaining schools reported that career cluster directors/coordinators/counselors, teachers, and academic counselors are responsible for providing advising services to students.

**Figure 35. Who Provides Career Guidance Services**



Other included Career Center staff.

For each grade level, schools also reported on how often advisors met with students. The highest percentage of schools indicated that for all grade levels, students met with advisors 3-5 times throughout the school year. The next most common was that students met with advisors once at the beginning and once at the end of the year. Seventeen (17) schools indicated that 12<sup>th</sup> grade students met with an advisor more than five times during the school year. This is likely due to the amount of college and career planning that most commonly takes place during the students senior year.

**Table 21. How Often Students Meet with Advisor (Number of Schools)**

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>Not at all</b>	4.5% (2)	2.3% (1)	0.0%(0)	0.0%(0)
<b>Once at beginning of the year</b>	20.5% (9)	13.6% (6)	6.8% (3)	2.3% (1)
<b>Once at the beginning and end of the year</b>	34.1% (15)	31.8% (14)	18.2% (8)	18.2% (8)
<b>3-5 times</b>	22.7% (10)	36.4% (16)	43.2% (19)	27.3% (12)
<b>More than 5 times</b>	11.4% (5)	6.8% (3)	22.7% (10)	38.6% (17)
<b>Other*</b>	6.8% (3)	9.1% (4)	9.1% (4)	13.6% (6)

\*Other included: Once during the school year, twice per month

## Summary

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During 2008-2009 the State of Wyoming met Perkins accountability and reporting requirements and continued to undertake activities designed to address the new requirements of Perkins IV. WDE collected information on two subgroups of students using the new definitions for CTE concentrators and CTE participants. The following provides a summary of results from the second year of Perkins IV.

Data was collected and reported for 5,307 CTE concentrators in 64 Wyoming secondary schools. The total number of concentrators showed a decrease of 19.38% from the previous year. Among CTE concentrators, results showed that for the sixth consecutive year, the program areas of Architecture and Construction, Agriculture, Manufacturing, and Business Administration were the most popular CTE program areas.

In the area of academic attainment (1S1 and 1S2), the Perkins IV indicator was divided into two separate indicators for reading and mathematics under Perkins IV. Results showed that 62.15% of CTE concentrators were proficient in reading and 64.64% mathematics. These numbers are below the target of 66% for reading and exceeds the 61.90% target for math. Furthermore, 69.53% of the female concentrators were proficient in reading while 57.13% of the males were proficient. In math 61.41% of females were proficiency in math compared to 66.84% of males.

For technical skill attainment (2S1), Wyoming used a transitional assessment system comprised of three of the existing WyCTA skills assessments (Affective & Thinking, Pre-employment and Employability). The State is funding the development of a new CTE assessment system which will be aligned to recognized industry standards. Overall, results showed that 82.01 of CTE concentrators assessed were proficient on the total WyCTA scale. Examination of technical skill attainment as compared to the prior year showed stable proficiency results (81.94% in 2007-08). Analysis by program area showed that 94.7% of Finance concentrators were the most proficient while concentrators in the Transportation, Distribution and Logistics program area were the least proficient (76.0%).

The completion rate (3S1) for 2008-2009, i.e. the percent of CTE concentrator students who indicated that they would graduate, or otherwise complete secondary education in 2008-2009, was 94.00%. Across all subpopulations with 10 or more students, over 79% of concentrators completed secondary education. Furthermore, among these CTE completers, 136 earned a CTE certificate or credential. Consistent with prior years, the most common type of proficiency credential or certificate received was in the health field.

Examination of the results for indicator (4S1-Student Graduation Rates) showed that 91.31% of eligible CTE concentrators were reported as graduating, exceeding the target of 80%. This represents a 1% increase as compared to last year's figure of 90.4%. Note that this indicator is calculated using 2007-2008 data provided by the Wyoming Department of Education for students who graduated during the prior school year.

Follow-up information was obtained in the second quarter, (October 1 to December 31, 2008) for concentrators who left secondary education in the 2007-08 school year. Results for 5S1 showed that among 2008-2009 concentrators who left, 95.25% were in an advanced placement, i.e. postsecondary education, military, advanced training or employment. The majority of students in advanced placement are enrolled in community college, 4-year university, or in advanced training (67%) and an additional 30.3% are employed. Additionally, 97.5% of students enrolled in community college remained in-state. Students most likely to be out of state at time of follow-up were in advanced training/technical school (46.1%), 4-year university (38.5%) or in the military (34.7%).

Examination of non-traditional participation (6S1) showed that 33.99% of students in nontraditional programs were in under-represented gender groups. This represents a 1.91% decrease as compared to the 2007-2008 result of 35.9%. Similarly, 30.37% of concentrators completing a non-traditional program were in under-represented gender groups. This represents a 2% increase as compared to the 2007-2008 completion result of 28.3%.

Trends in CTSO participation were consistent with prior years with 25.4% of CTE concentrators reported as having participated in CTSOs. The highest proportions of concentrators participated in FFA (47.9%). In addition, there was a 2% increase in DECA participation between 2007-2008 and 2008-2009. Similar to prior years, CTSO participants also had higher overall WyCTA proficiency (87.5%) than students who did not participate in these programs (79.9%). These results are also consistent across all three of the WyCTA content areas assessed.

In addition, a total of 79.0% of CTE concentrators had an occupation plan in place. Senior students were the most likely to have an occupational plan. Participation in job training remained consistent with the prior year, with job shadowing being the most popular (30.5%). In terms of integrated instruction, schools reported a number of ways that integration is achieved. In particular, schools noted that they integrate instruction at multiple levels, including at the CTE level, Academic level and/or Teacher level: (a) at the teacher level, this typically includes cooperation between academic and CTE teachers on specific units of study; (b) at the CTE level, this typically includes reading and writing integrated into CTE courses; and (c) at the academic level; this typically includes "real world" application in academic math and science classes.

Information on articulation agreements between secondary schools and post-secondary institutions was also collected. Among reporting schools, 83.6% indicated that they had at least one existing articulation agreement with a community college. Most schools reported an agreement for concurrent courses with Northwest College (17 schools) and Sheridan College (15 schools). A relationship between school size and number of students enrolled in concurrent classes was also observed such that larger schools had more students taking concurrent enrollment courses. Additionally, 35% of CTE concentrators were reported to have been enrolled in one or more concurrent enrollment classes during 2008-2009.

Schools also reported that 64.2% had a formal guidance/advising program in place. Not surprisingly, larger schools were most likely to have these programs and also had a higher number of advisors available for students. Most commonly, schools with guidance programs had 1 counselor/advisor who met with students, on average, 2-5 times per school year.

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In conclusion, results show that Wyoming students have performed at a relatively stable level in recent years, with slight increases (such as CTE completion) and decreases (academic attainment). Wyoming schools are to be commended for meeting the eight federal targets established during the second year of Perkins IV, and in some cases exceeding them by a fair amount. In addition, greater accountability among schools is required as part of Perkins IV and as such, targets are being negotiated with Wyoming secondary schools receiving Perkins funds.