

**WYOMING CAREER TECHNICAL EDUCATION
2007-2008
Section B**

Narrative Report

EXECUTIVE SUMMARY

Wyoming has a population of approximately 522,830 people and is geographically rural. The state population during 2007 indicated an increase of approximately 1,000 students. Major industries in the state include tourism, coal, methane and agricultural production. Coal and methane production are considered to be the primary source of state income. Education is a high priority in the state, as evidenced by the support of the legislature, school boards and the Wyoming Department of Education (WDE).

Wyoming Career and Technical Education (CTE) underwent substantive changes in order to meet new Perkins accountability and reporting requirements. While this report presents findings under the recently reauthorized Perkins Act, it should also be noted that the 2007-2008 year was a transitional year designed to provide time for States to put into place, among other things, new data collection mechanisms for these new requirements. As an example, Wyoming secondary schools used a revised version of the Wyoming Career Technical Assessment (WyCTA) during 2007-2008 as a new assessment system is being developed which will be aligned to recognized industry standards. New and transitional data collection activities designed to meet Perkins IV reporting requirements are discussed throughout the report.

Career technical and vocational leadership is strong in Wyoming along with a great commitment to provide opportunities for all Wyoming students.

I. State Administration

a. Sole State Agency and Governance Structure

The designated eligible agency responsible for the administration of the Carl D. Perkins Vocational and Technical Education Act of 2006 (Perkins IV) is the WDE. The Wyoming State Board of Education, which also serves as the State Board of Vocational Education, in concert with the State Superintendent of Public Instruction ensures that all students be provided the opportunity to participate in career technical programs in preparation for careers in order to become productive citizens. This is further reinforced through the State's Hathaway Scholarship program having as one of its requirements that each student follow a career plan of study based on the sixteen career clusters identified by the State. Also, the Board and the WDE ensure that all students have the opportunity to master an ambitious common core of knowledge and skills.

b. Organization of Vocational and Technical Education Programs

The WDE State Director of Career Technical Education (CTE) has oversight of the Career Technical Education staff. The CTE staff, including the Director, consists of a supervisor, four consultants and one administrative specialist. Also, the Director is the leader for the Distance Education, Data Services, Network Services and Technical Services sections.

II. State Leadership Activities

Leadership funds, for non-traditional and corrections programs, were competitively awarded to meet the nine required and twenty permissible uses stated by federal law. The awards are monitored through onsite visits, regional trainings and annual reports that document required activities, to include special population activities by program area. Also, all grant activities are required to report on data compiled from the electronic WyCTA of 10th grade vocational students and 11th and 12th grade vocational concentrators, as well as post-secondary concentrators, reported within the 16 career clusters to determine programmatic status. A complete disaggregation as required for Perkins also is reported. Local Education Agencies (LEAs) and institutions use the WyCTA assessment data for school and program improvement as well as to evaluate activities.

a. Required Use of Funds:

Conducting an assessment of the vocational and technical education programs funded under Perkins IV:

For the 2007-2008 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 two out of the three content areas and were required to be assessed on at least two of the skills. 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 solely and is not industry-specific. Wyoming has developed a multistep, 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 teachers 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 in 2007-2008 for the program areas of Manufacturing, Agriculture and Natural Resources, and Architecture and Construction; three of Wyoming's highest enrollment program areas.

Developing, improving, or expanding the use of technology in career and technical education:

The WDE again demonstrated great strides in technology expansion.

Under the direction of the Distance Education Section the Wyoming Equality Network (WEN) video system continues to grow in usage by Wyoming schools. The WEN is a two-way interactive IP based video conferencing system available to all secondary and postsecondary schools in the state. Through this medium CTE classes are able to take virtual field trips into the workplace. Total video conferencing averaged 3000 hours per month.

Fully available at the beginning of the 2007-2008 grant period the eGrants Management System (GMS) moved the WDE Perkins IV allocated grant application into an electronic format. The GMS allows LEAs to present program detail, budget information, and other pertinent information about their Perkins programs in a concise manageable format.

Offering professional development programs, including providing comprehensive professional development (including initial teacher preparation) for career and technical education teachers, faculty, administrators, and career guidance and academic counselors at the secondary and postsecondary levels:

In accordance with The Wyoming State Board of Education Accreditation Rules and Regulations, schools must provide professional development programs that support

standards deployment for school improvement. State Career/Vocational Standards professional development is planned, implemented and in direct support of CTE improvement goals. A systemic program of academic and career technical professional development is in place to enhance student learning. LEA curricula are aligned with the state Career/Vocational standards and professional development. Integration of CTE programs with academics is being developed and deployed throughout the state. The WDE supports this development by providing opportunities for administrators, teachers, counselors and partners through in-service conferences such as the twice annual School Improvement Conference and regional workshops. Topics presented during the 2007-2008 funding year include development of district's local Perkins five year plans and workshops on integration of academics and career technical education.

The WDE contracted with the local community college to provide the organization and delivery of professional development opportunities that meet the requirements of the Carl D. Perkins Career and Technical Education Act of 2006 and state CTE program needs. The Business Training and Workforce Development Department of the college has specialists who provide professional development needs statewide.

Professional development opportunities offered were: Career Pathways Leadership Certification, Leadership in the Classroom, Essentials of Leadership, Developing Leaders, and Taking Charge of Your Development. The courses are offered for CTE educators at secondary and postsecondary levels during the Wyoming Association of Career and Technical Education (WACTE) state conference and at the seven community colleges.

Educators who participated received teacher re-certification, college credits and certificates (where applicable). Completion of the courses provided high quality training that met business and industry standards and Perkins IV requirements.

Providing support for career and technical education programs that improve the academic and career and technical skills of students through the integration of academics with career and technical education:

Integration of CTE and academic programs is currently being developed and deployed throughout the state on a district by district basis. The WDE supports this development by providing staff development opportunities to administrators, teachers, counselors and partners through in-service conferences , the semi-annual School Improvement Conference and regional workshops. Topics presented during the 2007-2008 funding year include developing district's local five year plans for Perkins IV. Professional development opportunities, through the contract with the local community college, provided courses in Career Pathways Leadership, and certification and integration of CTE courses with math and English.

Information on integrated instruction was collected from secondary schools during the 2007-2008 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. Several themes emerged. In

particular, schools noted that they integrate instruction at multiple levels, including at the CTE level, academic and/or teacher level. It was noted by several schools that academic teachers find it more difficult to incorporate career and technical aspects into their curriculum. Integration was more likely to take place in CTE classes.

Providing preparation for non-traditional fields in current and emerging professions, and other activities that expose students, including special populations, to high skill, high wage occupations, except that one-day or short-term workshops or conferences are not allowable:

Competitive Perkins funds were awarded to three community colleges for the 2007-2008 school year in the nontraditional category. As indicated by need the overall goal was to increase gender equity in CTE programs and provide students with financial, academic and social support to be successful in their majors. In addition, career guidance, counseling, case management, supplemental services and employability enhancements were provided. Each community college sponsored activities throughout the year to help students maximize their chances of being successful. Examples of these activities are job readiness workshops, job shadowing and internship experiences, diversity workplace presentations, proactive mentoring, job placement, and job fairs along with career and employer advisement.

Supporting partnerships among local educational agencies, institutions of higher education, adult education providers, and, as appropriate, other entities, such as employers, labor organizations, intermediaries, parents, and local partnerships, to enable students to achieve state academic standards, and career and technical skills, or complete career and technical programs of study:

The WDE considers the school districts and community colleges as equal partners in the educational process of Wyoming's students. Wyoming Association of Career Technical Education (WACTE) is a professional organization which provides workshops, training and an annual conference. The Wyoming Department of Workforce Services (DWS) is a strong partner in new career technical developments at the state level such as the Career Cluster initiative and supplementing career counselor activities at all high schools throughout the state. The Wyoming Community College Commission (WCCC) is working closely with the WDE to develop stronger ties with the community colleges in developing appropriate data elements for reporting purposes as well as continuing to work with the Hathaway student scholarships.

The WCCC and the DWS, as working partners, are committed to providing both secondary and post secondary CTE opportunities to all students. Other partners actively involved with the WDE are the Wyoming Board of Cooperative Educational Services (BOCES), Wyoming Contractors Association, and Small Business Administration are vital partners in continuous improvement of CTE. Because of the relationships developed between these partners, the WDE is in a more positive position to support and provide quality CTE to students at many levels throughout the state.

An outstanding example of cooperation and partnering amongst agencies in Wyoming career education is the publication of the Wyoming Career Education Planning Guides

that have been developed as a combined effort of the WDE, the University of Wyoming, Community College System, the Wyoming Business Council, DWS and the Wyoming Hathaway Scholarship Program. These guides, as well as the Career Cluster Guides provide parents, students and business community members with an in-depth look at careers in Wyoming. In addition, the guides provide a pathway for students to follow as they develop an education plan to meet their individual needs thus providing the state with a well prepared work force.

Serving individuals in state institutions; Corrections/Students with Disabilities:

One corrections grant was funded in this category. “Cooperative Education for Individuals with Disabilities” is a second year project at Rehabilitation Enterprises of North Eastern Wyoming (RENEW) in Sheridan, Wyoming. This project provided expanded career educational opportunities to individuals with cognitive disabilities by providing a work practicum for selected students who are ready for this advancement.

Providing support for programs for special populations that lead to high skill, high wage and high demand occupations:

Special population assessment data is collected on the WyCTA and reported in the following categories: economically disadvantaged, disability, single parent, limited English proficiency, nontraditional, other educational barriers, and displaced homemaker categories. This data is reported from both secondary and post secondary institutions. The composition of these subpopulations has remained stable from previous years. Information reported also identifies special populations in career technical course sequences and career technical certificate and degree programs. Each subgroup is monitored for progress along with overall career technical results. A variety of agencies such as the Governor’s Council for Developmental Disabilities, Montgomery Trust Fund for the Blind, Assertive Technology Centrum, RENEW, all seven Wyoming Community Colleges, and the WDE are entities preparing students with disabilities for future attendance in higher education or employment.

Offering technical assistance for eligible recipients:

Technical assistance was offered in a variety of formats including; WyCTA annual conference, assessment development training, conference calls, summer consolidated grant workshops, and monitoring visits to various districts. The WDE Career and Technical education team conducted onsite visits to twenty selected high schools and colleges around the state to provide technical assistance on development of the local five year plans. Contact was made with individual recipients to provide specific assistance with the development of their five year plans and to assist in constructing applications for the 2007-2008 program year.

b. Permissible Activities Include:

Developing or enhancing data systems to collect and analyze data on secondary and postsecondary academic and employment outcomes:

The seven community colleges in the state each use a different data base for storing student data which makes extracting information for Perkins reporting difficult. State leadership funds were provided to develop and implement a common software program for extracting data to alleviate this situation.

SUMMARY

During 2007-2008 the State of Wyoming met Perkins accountability and reporting requirements and simultaneously undertook transitional activities designed to address new requirements of Perkins IV. WDE collected information in three subgroups of students using the new definitions for CTE concentrators, CTE participants and CTE enrollees. The following provides a summary of results from the first year of Perkins IV.

Data was collected and reported for 6,583 CTE concentrators in 66 Wyoming secondary schools. Generally, demographics remained consistent with results from past years. Among CTE concentrators, results showed that for the fifth consecutive year, the program areas of Architecture and Construction, Agriculture, Manufacturing, and Business Administration were the most popular program areas.

In the area of academic attainment (1S1 and 1S2), the Perkins III indicator was divided into two separate indicators for reading and mathematics under Perkins IV. Results showed that for both indicators, 65.3% of CTE concentrators were proficient in reading and mathematics. This exceeds the targets of 63.5% for reading and 60.9% for math. While results were comparable by gender for academic attainment in mathematics, 73.58% of females met target for proficiency in reading compared to only 59.73% 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 81.9% of CTE concentrators assessed were proficient on the total WyCTA scale. Examination of technical skill attainment as compared to prior years showed slight decreases, between 3% and 6%, in proficiency on the WyCTA content areas assessed. Analysis by program area showed that 94.1% of Science Research and Engineering concentrators were proficient while concentrators in the Transportation, Distribution and Logistics program area were the least proficient (74.1%).

The completion rate (3S1) for 2007-2008, i.e. the percent of CTE concentrator students who indicated that they would graduate, or otherwise complete secondary education in 2007-2008, was 89.5%. Across all subpopulations with 10 or more students, 80% of concentrators completed secondary education.

Examination of the results for indicator (4S1-Student Graduation Rates) showed that 90.4% of eligible CTE concentrators were reported as graduating, exceeding the target of 80%. 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. Among students who graduated, 6.9% were eligible to receive or received a proficiency credential or certificate. Consistent with last year, the most common type of proficiency credential or certificate received was in the health field.

Follow-up information was obtained in the second quarter, (October 1 to December 31, 2007) for concentrators who left secondary education in the 2006-07 school year. Results for 5S1 showed that among 2006-2007 concentrators who left, 97% 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 or 4-year university (57.2%). Additionally, 96.2% of students enrolled in community college remained in-state. Students most likely to be out of state at time of follow-up were in the military or advanced training/technical school.

Examination of non-traditional participation (6S1) showed that 35.9% of students in nontraditional programs were in under-represented gender groups. This represents a 6.7% increase as compared to the 2006-2007 result of 29.2%. Similarly 28.3% of concentrators completing a non-traditional program were in under-represented gender groups. This represents a 2% increase as compared to the 2006-2007 completion result of 26.6%.

Trends in CTSO participation were consistent with past years with 25% of CTE concentrators reported as having participated in CTSOs. The highest proportions of concentrators participated in FFA (51.1%). In addition, there was a 4.5% decrease in DECA participation between 2006-2007 and 2007-2008. CTSO participants had higher overall WyCTA proficiency (89.3%) than students who did not participate in these programs (79.3%). This result was also consistent across all three of the WyCTA content areas assessed.

Information on the number of CTE courses and credits offered by Wyoming secondary schools showed that the average number of classes typically required to complete a CTE program area was 4. Health Science programs required the fewest courses (2.4), while Government and Public Administration programs required the most (8). The number of credits required was significantly more varied than the number of courses. This is likely due to schools assigning different credit values to individual classes.

In addition, a total of 80.3% 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 (29.2%). In terms of integrated instruction, schools reported a number of ways that integration is achieved. It was noted that generally academic teachers find it more difficult to provide integrated instruction activities so these typically take place in CTE courses or through CTE and academic teacher cooperation. The most common ways in which integration is accomplished includes cooperation between academic and CTE teachers on specific units of study, reading and writing integrated into CTE courses, and "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, 90.9% indicated that they had at least one existing articulation agreement with a community college. Most schools reported an agreement for concurrent courses with Sheridan College (16

schools) and Eastern Wyoming 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 2007-2008.

Schools also reported that 48.4% 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, 3-5 times per school year.

In conclusion, results show that Wyoming students have performed at a relatively stable level in recent years, with slight increases (such as non-traditional participation) and decreases (technical skill attainment). While Wyoming schools are to be commended for meeting the three federal targets established during the first year of Perkins IV, and in some cases exceeding them by a fair amount, targets will need to be negotiated based on the data presented herein. 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. Review of the baseline information collected during 2007-08 will influence future planning.