FACT SHEET

CAREER PATHWAYS: PREPARING STUDENTS FOR A SUCCESSFUL LIFE

According to data compiled by the New Mexico Association for Career and Technical Education (CTE):

- CTE students increased their twelfth grade test scores on the National Assessment of Educational Progress (NAEP) by about 8 scale points in reading and 11 points in math, as compared to non-CTE students;
- students who completed a rigorous academic core coupled with a career concentration have test scores that equal or exceed "college prep" students. These dual-concentrators are more likely to pursue postsecondary education, have a higher grade point average in college, and less likely to drop out the first year;
- CTE graduates are 10 percent to 15 percent more likely to be in the labor force, and earn 8.0 percent to 9.0 percent more than graduates of regular academic programs;
- students who took four high school CTE courses showed an average increase in earnings of $1,200 immediately after graduation and $1,800 seven years later;
- high-risk students are eight to 10 times less likely to drop out in eleventh or twelfth grade if they enroll in a CTE program rather than a general program;
- in 2018, 42 percent of all jobs in New Mexico will be found in Business Management and Administration, Marketing, Sales Services, Hospitality, and Tourism; and
- in 2018, there will be approximately 98,000 jobs for those in New Mexico with technical certificates.

A study conducted by Georgetown University, *Education for What? Why We Need to Connect Education and Careers and How to Do It*, statistics indicated by 2020, 65 percent of jobs will require education or training beyond high school. The study further noted that four out of five jobs that pay a living wage require education or training beyond high school. It is imperative that New Mexico establish strategies that provide opportunities for all students to choose a clear career pathway resulting in an industry-recognized certificate or postsecondary attainment.

2014 Legislative Education Study Committee (LESC) Interim Testimony

During the December 2014 meeting, the committee heard testimony from the Southern Regional Education Board (SREB) indicating New Mexico needs a clear definition of high-quality career pathways that connect high school and postsecondary studies with 21st Century job opportunities. The Senior Vice President of SREB informed the committee on the following CTE attributes for New Mexico:

- high school students have access to at least 320 CTE courses;
- over 130,000 students were enrolled during school year 2013-2014 in one or more CTE courses;
- approximately 46 percent of seniors in school year 2013-2014 will complete four or more CTE courses; and
- not enough students are completing a sequence of four CTE courses in a planned, structured career pathway.

The SREB representative summarized the preliminary analysis by stating that, while there was a sufficient quantity of courses, they were not a well-defined set of expectations for courses that

were linked to postsecondary study and employment opportunities. He further noted that most of the courses appeared to be at the introductory level, although there were over 130,000 students enrolled in CTE courses. He added that the analysis also indicated the following:

- small schools have limited capacity to offer quality career pathways;
- few students take advanced/capstone CTE courses or participate in work-based learning experiences;
- online and dual credit CTE courses are limited, introductory, and often are not part of a structured career pathway; and
- fewer than 400 high school students earned credible industry credentials or licensures in 2013.

The SREB representative further noted that New Mexico should not only clearly define a career pathway but also should include a rigorous program that is aligned with employment opportunities with such features as:

- rigorous, relevant, career pathways;
- college- and career-readiness standards in literacy and math;
- assessments of technical and workplace readiness that are linked to more advanced certifications;
- increased number of young adults earning credentials by age 25;
- restructuring low-performing high schools with low graduation rates and create a guidance system for career information, exploration, and advisement; and
- attracting, preparing, and retaining high-quality CTE teachers.

Finally, the SREB representative recommended that New Mexico provide all high school students in the many diverse regions of the state with access to high-quality career pathways that lead to advanced credentials and good jobs. The state can use various policies and incentives to encourage districts, postsecondary institutions, and employers to develop career pathways that include:

- access to early advanced credential programs or early college programs that will enable them to enroll in occupational programs;
- offer high-quality, web-based CTE courses; and
- establish in policy a definition of what constitutes a career pathway/program of study.

2015 Legislative Session

Laws 2015, Chapter 60 (HB 178a), which became effective July 1, 2015, amended the *Public School Code* to:

- allow students to receive credit for certain career technical education courses as electives;
- define certain career technical education terms; and
- allow districts to choose whether students who successfully complete an industry-recognized credential, certificate, or degree may receive additional weight in the calculation of their grade point average.

HM 14, *Establish High-Quality Career Pathways*, requested the Higher Education Department (HED), the Public Education Department (PED), and the Workforce Solutions Department

(WSD), to collaborate to establish high-quality career pathways that bridge high school curricula, postsecondary studies, and 21st Century job opportunities for all New Mexico students and report their findings and progress to the LESC by November 1, 2015.

The memorial also requested that the three departments to collaborate with relevant stakeholders on initiatives that guide secondary students through career information, exploration, and advisement and that address "early advanced credential programs for students pursuing economically viable career pathways."

Career Technical Education (CTE) Programs of Study

CTE programs of study provide New Mexico students with a seamless education that takes them from primary school through secondary and postsecondary studies. In order to be successful, today's high school graduates must be competent in English and math skills in order to engage in entry-level, credit bearing postsecondary coursework. The College and Career Readiness Bureau (CCRB) at PED provides early elementary through college (P-20) academic and career pathways that are an integrated collection of learning experiences offered through different programs. They are intended to develop students' core academic skills and provide them with continuous education and employability credentials.

Carl D. Perkins Grant

Pursuant to the federal *Carl D. Perkins Career and Technical Education Improvement Act*, the CCRB provides assurances that the eligible recipients will provide a CTE program that improves the quality for a college- and career-ready pathway. The Perkins Act requires the use of funds for:

- strengthening the academic, career and technical skills of students participating in CTE programs;
- strengthening the integration of academics with CTE programs through a coherent sequence of courses; and
- providing professional development to secondary and postsecondary teachers, faculty, administrators, and career guidance and academic counselors who are involved in integrated CTE programs.

In facilitating the Perkins Act, schools involved in CTE use Programs of Study (POS) to connect high school and postsecondary education, retain students, and increase graduation rates. Professionals in high schools develop POS that incorporate technical instruction with rigorous academic content based on standards that lead to successful completion of the educational process and entry into the workforce.

To address New Mexico students' preparation for postsecondary engagement, educational and training opportunities are delivered through new content standards with benchmarks and performance standards for CTE, seventh through twelfth grade. They are identified in 16 Career Clusters as the foundation for the state's future economy: Agriculture, Food, and Natural Resources; Architecture and Construction; Arts, A/V Technology, and Communications; Business, Management, and Administration; Education and Training; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety, Corrections, and Security; Manufacturing; Marketing; Science, Technology, Engineering, and Mathematics; and Transportation, Distribution, and Logistics.

Funds from the grant must be used to address the following nine requirements:

1. strengthen the academic and career and technical skills of students participating in career and technical education programs;
2. update or expand articulation agreements between secondary CTE programs and postsecondary CTE programs;
3. provide students with strong experiences in the understanding of all aspects of an industry, which may include work-based learning experiences;
4. develop, improve, or expand the use of technology in career and technical education;
5. provide professional development programs;
6. develop and implement evaluations of CTE programs carried out with funds;
7. initiate, improve, expand, and modernize quality of CTE programs, including relevant technology;
8. provide services and activities that are of sufficient size, scope, and quality to be effective; and
9. provide activities to prepare special populations, including single parents and displaced homemakers, who are enrolled in CTE programs for high-skill, high-wage, or high-demand occupations that will lead to sufficiency.

According to PED, CTE programs must have sufficient local and state funds to enable them to operate without federal Perkins funds. Perkins funds are to be used to supplement, upgrade, and improve CTE programs and not simply to maintain programs at their current funding levels.

High Schools That Work (HSTW)

High Schools That Work (HSTW) was established in 1987 by the Southern Regional Educational Board (SREB) State Vocational Education Consortium, a partnership of SREB, its member states, their school systems and school sites.

HSTW has grown from 28 pilot sites in 13 states to its current size of more than 1,200 sites in 30 states and the District of Columbia, including: Alabama, Arkansas, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, and West Virginia.

HSTW uses research-proven strategies to help states transform their public high schools into places where all students learn at high levels.

The program is based on the belief that most students can master complex academic and technical concepts if schools create an environment that encourages students to make the effort to succeed. Member schools implement 10 key practices for changing what is expected of students, what they are taught and how they are taught. They include:

1. **high expectations** that motivate more students to meet higher standards by integrating high expectations into classroom practices and providing frequent feedback;
2. **programs of study** that require each student to complete an upgraded academic core and concentration;
3. **academic studies** that teach more students the essential concepts of the college-preparatory curriculum by encouraging them to apply academic content and skills to real-world problems and projects;

4. **career-technical studies** that provide more students access to intellectually challenging career-technical studies in high-demand fields that emphasize the higher-level academic and problem-solving skills needed in the workplace and in further education;
5. **work-based learning** that enables students and their parents to choose from programs that integrate challenging high school studies and work-based learning and are planned by educators, employers and students;
6. **teachers working together** to provide cross-disciplinary teams of teachers time and support to work together to help students succeed in challenging academic and career/technical studies;
7. **students actively engaged** in rigorous academic and career-technical classrooms and challenging proficient-level assignments using research-based instructional strategies and technology;
8. **guidance** that involve students and their parents in a system that develops positive relationships and ensures completion of an accelerated program of study with an academic or career-technical concentration;
9. **extra help** to provide a structured system of extra help to assist students in completing accelerated programs of study with high-level academic and technical content; and
10. **culture of continuous improvement** that use data continually to improve school culture, organization, management, curriculum, and instruction to advance student learning.

HSTW are funded through the *Carl D. Perkins Act*. For FY 16, $440,565 was distributed to three district sites and one charter school:

- $111,953: Las Cruces Public Schools;
- $100,860: Roswell Independent Schools;
- $105,872: Taos Municipal Schools; and
- $121,880: Media Arts Collaborative in Albuquerque.

College Preparation, Career Readiness, and Dropout Prevention Initiative

NM Workforce Ready Programs (WRP)

WRPs integrate academic and CTE programs that support academic growth in meeting Common Core State Standards (CCSS) and Common Career Technical Core Standards (CCTCS) through a structured program of study. These programs meet local and state graduation requirements, contain a structured four-course CTE sequence, and lead to workforce readiness recognized by business and industries.

The request for application (RFA) includes seven key variables for success:

1. **executive summary** articulates how a WRP will generate positive growth for the school, district, community and workforce through support of students served, the curriculum, and various partnerships that will provide support for placement in the workforce;
2. **improvement and accountability** analyzes the systems and strategies used to gather quantitative and qualitative data that demonstrates the need for change through the review of student achievement, graduation, and college and workforce readiness data, the Educational Plan for Student Success (EPSS), project starting point, and description of identified project goals and performance measures;
3. **program of study** identifies the comprehensive sequence of relevant secondary and postsecondary courses that will be made available to students who enroll in the WRP;

4. **structures** are in place so that guidance, counseling, and academic advisement can help students make informed decisions about which WRPs to pursue and to provide innovative and creative instructional approaches to enable teachers to integrate academic and technical instruction;
5. **postsecondary and workforce/business partnerships** establish meaningful consortia with accredited, credit-bearing postsecondary institutions for accelerated learning opportunities such as Advanced Placement and dual credit, work-study, apprenticeships or workplace mentorship opportunities through industry and community partners;
6. **sustainability** develops through articulation and documentation of partnership with the community and local business and industry sectors to prepare students for entry into careers in which state or regional need has been confirmed; and
7. **technical skills assessment** identifies and documents the technical knowledge and skills developed by the student, and should be based on a nationally validated, industry-based skill standards.

WRPs are funded through PED's College Preparation, Career Readiness, and Dropout Prevention initiative. Three district sites and one charter school received $381,152 in FY 16:

- $106,027: Carlsbad High School;
- $100,000: Hobbs High School;
- $50,125: Rio Grande High School (APS); and
- $125, 000: School of Dreams Academy in Los Lunas.

Early College High Schools (ECHS)

ECHS are tuition free public schools that serve low-income, English language learners, ethnically diverse students who are generally the first-generation to attend college, as well as young adults who are underrepresented in higher education. As part of the program, students participate in rigorous academic and CTE coursework in order to graduate with a diploma and a postsecondary a degree or certificate. These credentials enable students to work in fields with high growth, demand, skills, and wages. ECHS promote Advanced Placement and dual credit courses to help high school students make a seamless transition into college.

The request for application (RFA) includes seven key variables for success aligned with the RFA for WRP. However the following requirements are unique to the ECHS program:

- **program of study and structure** may offer an environment conducive to learning that does not fall within the traditional hours of operation of a school; and
- **facilities** for New Mexico ECHS must be located at an existing school facility accessible by all students or have an identified facility funded by a private/external entity.

ECHS are funded through PED's College Preparation, Career Readiness, and Dropout Prevention initiative. $449,000 that was received in FY 16 was distributed to:

- $100,000: Santa Fe High School; and
- $349,000: Four Corners Educational Council (Aztec, Bloomfield, and Farmington).

Eligibility

An eligible entity for HSTW, WRP, and ECHS may be a public Local Education Agency (LEA) including state-chartered charter schools. Among all applicants, PED is seeking eligible entities that serve students attending struggling schools in low-income areas with a school grade of C, D, or F, are located in rural areas, and have limited to no access to Carl D. Perkins grant funding.

Advanced Placement System Support (AP)

The College Board's College and Career Readiness Pathway is a series of integrated assessments that measure students' college and career readiness. Two assessments supported by the board are the PSAT/NMSQT (grade 10) and AP examinations.

The PSAT assessments are administered free to all New Mexico tenth grade students. The benefit of taking the assessment is that it reflects and informs academically rigorous work and serves as a practice for the SAT. Statewide administration of the test benefits education in several ways:

- it is an effective instrument that informs college planning and college fit through a student personality profile and career match tool. The matching tool connects students with a wide variety of potential college choices, increasing the likelihood of selecting an appropriate fit;
- it provides school staff with baseline academic indicators so they can improve and refine student learning; and
- the test is an important tool and resource that helps identify students who are ready for the rigor of AP work.

Career Technical Student Organizations (CTSO)

CTSOs are youth organizations designed to support students in CTE programs. CTSOs are considered an integral part of CTE because they help students develop the technical and leadership skills that will enable them to succeed in their career paths. PED-recognized organizations include:

- Business Professionals of America (BPA);
- DECA (an association of marketing students);
- Family, Career and Community Leaders of America (FCCLA);
- Health Occupations Student Association (HOSA);
- Skills USA (an association that improves the quality of America's skilled workforce through a structured program of citizenship, leadership, employability, technical and professional skills training); and
- Technology Student Association of America (TSA).

College Advisor Initiative

The purpose of the *College Advisor Initiative* is to establish a cohort of high school advisors placed across the state whose role is dedicated to college and career readiness. Advisors will conduct career planning with students and teach students about career readiness, college admission, and financial aid. Advisors will provide increased support through the application, admission, and acceptance processes for students to attend two and four year colleges and career-

focused postsecondary credentialing programs. All New Mexico school districts and state-chartered charter schools, as well as regional educational cooperatives interested in hosting a high school college advisor, PED will provide $65,000 in support for year one and $32,000 for year two. Districts may apply for more than one high school.

Other CTE Programs

Advanced Career

Advanced Career is an initiative of the Southern Regional Education Board (SREB) that creates curricula for all students by blending learning experiences that advance students' literacy, math, science, and technical knowledge and skills, and that strengthen the habits of behavior and mind for success.

Advanced Career pathway will be implemented as a coherent, articulated sequence of four intellectually demanding courses that can lead to a recognized industry certificate, a community and technical college certificate, or an associate or bachelor's degree. The courses will be organized around authentic, hands-on projects requiring application of the CCSS or other rigorous state standards in reading, writing, mathematics, science, and technical standards, and 21st Century skills.

Both formative and summative assessments are built into each project and each course to advance academic and technical achievement and success in entry-level positions and in entry-level, credit bearing postsecondary courses.

Staff development is a key component to the program, and it includes an intensive two-week summer institute. Teachers will develop student assignments that blend reading, math, science, and technology. Teachers will:

- practice teaching to set the context for project scenarios complete with assessments and rubric scoring;
- learn about special tools that help students read complex technical texts;
- practice counseling techniques for struggling students;
- work with formative assessment math lessons; and
- learn how to manage and teach in a standard project-based classroom using technology as a learning tool.

Advanced Career is supported by LEAs. There are two Advanced Career programs in New Mexico:

- Alamogordo Public Schools: Innovations in Science and Technology Pathway; and
- Farmington Municipal Schools: Energy and Power Pathway.

ACT WorkKeys Assessment

ACT WorkKeys is an assessment system designed to measure the skill that employers have identified as crucial to success in today's work environment. Educators can use ACT WorkKeys to assess whether students are gaining the foundational skills necessary for success in the workplace and to identify necessary curricular changes.

There are three components to ACT WorkKeys, which can be used independently but are designed to be used together:

1. ACT WorkKeys assessments measure "foundational workplace skills" in the 10 areas of applied mathematics, applied technology, business writing, listening, locating information, observation, readiness, reading for information, teamwork, and writing. The assessments are available in both computer-based and paper-based formats;
2. job analysis: the WorkKeys system includes processes to determine what types of skills are needed for success in a particular job. The most intensive process is called job profiling, which involves focus groups and employee collaboration. The types of jobs that have been profiled by WorkKeys include manufacturing, healthcare, law enforcement, hospitality, and a range of white-collar professional jobs such as accountants and Web masters; and
3. training: ACT offers a variety of training options, many of which focus on WorkKeys skills. In addition, ACT certifies training programs offered by other organizations that align with the WorkKeys goals.

In addition, ACT WorkKeys (Reading for Information and Applied Math) has been aligned to scores on the College Readiness Benchmarks on the ACT reading and mathematics[1]. The benchmarks reflect the ACT scores students need to earn to have at least a 75 percent or greater chance of obtaining a course grade of C or better. Level 5 of ACT WorkKeys assessment for reading and math is comparable to these benchmarks. However, because ACT WorkKeys and the ACT do not measure the same things and are not perfectly correlated, scores on the two tests are not interchangeable.

According to Workforce Solutions Department, 575 students have taken at least one of the WorkKeys assessments.

[1] Level 5 in WorkKeys Reading for Information and Applied Math are comparable with the College Readiness Benchmarks in Reading and Math, based upon analysis of Illinois high school criteria. For more information, go to http://www.innovate-educate.org/files/uploads/SummaryReady_For_CollegeReadyForWorkStudy.pdf.