The State Board of Vocational and Technological Education in Arizona is authorized to receive and distribute Carl D. Perkins funds. The State Superintendent of Public Instruction is authorized to direct Career and Technical Education (CTE) staff to carry out the functions and administration of the funds to the secondary and postsecondary eligible recipients.

During FY08-09 the Arizona Department of Education (ADE) administered Carl D. Perkins funds to the following eligible recipients:

- 111 Secondary Local Eligible Agencies (LEA)
- 1 Joint Technological Education District (JTED)
- 10 Postsecondary Local Eligible Agencies
- 11 Tech Prep Consortia

Arizona uses a State-established CTE program list for secondary and postsecondary agencies. It is driven by State labor market information and updated every two years. See Appendix for the list of available programs during FY08-09.

A. Implementation of State Leadership Activities

Required Use of Funds:

1. Conducting an assessment of the vocational and technical education programs funded under *Perkins IV*;

During FY08-09, Arizona expended leadership dollars to provide services throughout the State to benefit CTE programs and students, including special populations. Arizona's programs are offered, developed and supported based on high skill, high wage, and high demand criteria. To assess these programs and student success (including special populations), Arizona CTE implemented a complete online system wherein the LEAs submit enrollment and data to the Arizona Department of Education, as well as the ADE/CTE Assessment System which provides online Technical Skills Assessments. These accountability/data quality systems, overseen by State CTE staff, serve to assist in the evaluation and advancement of Arizona's CTE programs.

Leadership dollars were also expended in part to support on site reviews of CTE programs, including the Program Assessment Review (PAR) with selected districts, and other technical assistance or monitoring activities geared to program assessment and improvement. The PAR rubric is available at http://www.ade.az.gov/cte/Forms.asp#ProgramAssessment (see Item 9).

2. Developing, improving, or expanding the use of technology in career and technical education;

State Leadership funds were used to enhance the use of technology in CTE by developing skills to be applied within the online IDEAL system in collaboration between with the Arizona Department of Education and Arizona State University. This electronic system allows CTE teachers to participate in online professional development opportunities, develop learning communities, and create or store resources for program areas. CTE also provides state-wide technical assistance to improve LEA participation in the online Grants Management system. Arizona Department of Education (ADE) provides the web-based communication tool, iLinc. This is available to all agency staff and allows CTE to link with our stakeholders and community

members in a webinar or virtual meeting/presentation. CTE staff received training and used iLinc to reach instructors and administrators state-wide to provide professional development activities or technical assistance using the audio and visual capabilities.

CTE continues to foster the use of technology for accurate and timely data reporting. Training sessions in computer labs were conducted across the State, in the spring, fall and during the CTE/ $ACTE_{AZ}$ Summer Conference. The intent of these 10 sessions was to provide technical assistance in all aspects of electronic enrollment reporting for eligible recipients regarding funding, program enrollment and Performance Measures.

In addition, during the CTE/ $ACTE_{AZ}$ Summer Conference three computer labs consisting of 25 computer stations each were conducted during the three day conference. These labs offered a variety of professional development opportunities in program areas related to effective use of technology in the CTE classroom.

3. 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;

Comprehensive professional development (including initial teacher preparation) was addressed by using State leadership dollars in a variety of formats, using the National Staff Development Council's Standards for Staff Development, which support our agency's professional development guidelines. The professional development activities were executed with partnerships through Interagency Service Agreements with Arizona State University and University of Arizona. Topics offered were curriculum enhancement and development, building partnerships, technical assessment development and evaluation, career guidance and counseling, academic integration, and expanding the use of technology. Strategies were used to provide sustainability and follow-up for teachers, administrators, and career/academic guidance counselors for the purpose of increasing student achievement by enhancing instruction. Examples of strategies include: participant-engaging preparation, classroom-focused practice and performance, collaborative work evaluations and revisions in addition to supporting small learning communities. Attending industry conferences and viewing work environments were utilized as a strategy for industry updating program instructors.

ADE/CTE, $ACTE_{AZ}$, Arizona Tech Prep, and CTSO organizations collaborated to sponsor the CTE/$ACTE_{AZ}$ Summer Conference to support the mission/vision of CTE in Arizona as well as provide a venue for continuous professional development. The 2008 annual CTE/$ACTE_{AZ}$ Summer Conference was attended by over 1,700 professionals representing education, business and industry, and government.

Quality comprehensive professional development was offered to career guidance and academic counselors at the secondary and postsecondary levels. CTE offered ten full day AzCIS (Arizona Career Information System) workshop training days during FY08-09. Participants were instructed in ways to guide students in assimilating current career and educational information; how to deliver classroom career lessons or activities; and use of the various assessment tools. CTE and Arizona School Counselor Association hosted three regional Fall Workshops. Participants had the opportunity to work on their site implementation of the National School Counselor Association (ASCA) model for school counseling. Arizona provided four June Counselor Challenges for Arizona school teams comprised of guidance counselors, administrators and/or special populations personnel. CTE partnered in supporting the two-day

Arizona School Counselor March, 2009 Conference. CTE was involved in the design of break-out sessions to further help Arizona school counselors in meeting their professional standards as set by the ASCA model. Student career development is one of the Domains as set by ASCA professional association.

4. 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;

During FY08-09 10 CTE Programs were analyzed for enhanced mathematics content. The process was led by Arizona State University and included lead, CTE program area mathematics teachers who served on the Arizona Mathematics Content Standards Committee. The analysis used recently validated CTE Standards and Measurement Criteria and Arizona State Board for Vocational and Technological Education final 2008 Mathematics Performance Objectives. The results provided valuable resources for districts to use in developing/adapting new curriculum in these 10 CTE programs. The final results are also used during professional development events for these ten program areas.

5. 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;

During FY08-09, specific nontraditional (NT) services were provided throughout Arizona utilizing $60,000 of leadership funds. This funding focused on recruitment and retention of NT students in current and emerging professions, exposing students to high skill, high wage and high demand occupations supported by Arizona's CTE program offerings, including Arizona's new and emerging programs of Engineering Sciences and Bioscience. All students, including special populations, were included in these NT activities. In Arizona, special populations are mainstreamed into CTE programs so all students may benefit from these programs; however, students needing services to succeed in these programs were provided accommodations as appropriate.

Arizona continues its successful partnership with the University of Arizona and the Southwest Institute for Research on Women to offer NT services to CTE students and educators throughout the State, with the primary goal of improving Arizona's NT Perkins attainment. These services are provided to assist CTE instructors, counselors, and administrators, as well as students, in increasing enrollment and retention in NT CTE programs by offering long-term workshops, training, and online courses. During FY08-09, services were focused specifically on those districts which did not meet NT measures, although other districts were served as well.

During FY08-09, 273 NT workshops and presentations were conducted. Thirteen focused specifically on recruitment and retention techniques for NT students in CTE. Thirty-five targeted districts which had not met NT measures. A total of 9,430 individuals participated. Continuing online NT courses served 19 participants. Project staff served as mentors and assisted University of Arizona in the Expanding Your Horizons Conference for 218 females focusing on NT careers.

6. 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 CTE Section of the Arizona Department of Education participates in ongoing partnerships and initiatives with various business and industry partners, their respective industry associations, labor unions, and economic and workforce development entities to provide opportunities for secondary as well as postsecondary students. These partnerships support CTE students in academic achievement, concentration and completion of Programs of Study, passing Technical Skill Assessments, participation in internships and apprenticeships, continuing postsecondary education, and/or entering the military or workforce. Examples of these partnerships include:

- High Tech Workforce Initiative—Working in conjunction with Arizona's Technology Engineering and Manufacturing industries, Maricopa Community College District, and the National Science Foundation, to provide externships in business, curriculum/skills development and outreach including career awareness, exploration or preparation for high tech occupations.

- Arizona Technology Council—Participation on the Workforce Development and Education Committees to raise student achievement at the secondary and postsecondary level, provide articulation agreements between secondary and postsecondary, and workforce opportunities in high tech state-wide industries including Engineering, Manufacturing, Aerospace, and Robotics. The council works collaboratively with the STEM (Science, Technology, Engineering, and Math Education) Center/Arizona Science Foundation and has begun visioning towards a five year plan for high tech education and workforce development.

- MASH Events—Participating in state-wide activities to bring together technology industry professionals to evaluate and generate input into the growth of Industrial Technology state-wide and further improve student transition through the "pipeline" from elementary through adult postsecondary to produce the future workforce of Arizona. Priorities were established regarding connections and collaboration between education, industry, and government entities/State government.

- The Arizona Manufacturing Council (now a combined State entity under the Arizona Chamber of Commerce)—Working in partnership with the Arizona Tooling and Machining Association to improve student transition, workforce training and retention issues. The CTE Section has participated as a member partner in board and committee activities, as well as contributing to publications, competitions, and internships/externships.

- "Dream It/Do It"—Focusing on developing standards and assessments in Engineering, Manufacturing and Robotics at the secondary level and training/retraining adults to meet future manufacturing needs in Arizona. Maricopa County is one of 18 sites nationally selected by the National Association of Manufacturers to make manufacturing/advanced manufacturing, robotics, and engineering an "Industry of Choice".

- US Department of Labor Grant—Working in collaboration with business and industry, secondary and postsecondary education, Local Workforce Investment Boards/One-Stop Centers, Trade Associations and Unions to train/retrain individuals in Green, Renewable and Sustainable careers, to attain a $6 million grant in 2010.

- Statewide Solar Energy Initiative—Planning among Arizona/Greater Phoenix SCORE Advisors to Small Business, National Bank of Arizona, Greater Phoenix Economic Council, Arizona Chamber of Commerce, and Arizona Technology Council to focus on promoting solar energy.

- Entrepreneurship/Small Business Initiative—Collaborating with Greater Phoenix SCORE and the small business community, on Social Media events to assist entrepreneurs and small business owners in the start up and expansion of their operations. This project includes student organizations such as DECA and FBLA, to provide forums for students to dialogue and learn from business owners as well as to provide their perspective on 21st Century marketing and communications related to Arizona business and Career Clusters.

- Governor's Council on Workforce Policy—Working with Departments of Economic Security and Commerce to provide opportunities for secondary, postsecondary, and adult students to access education and training opportunities in workforce development. The group worked collaboratively with the State legislature to develop state-wide workforce policy. The Executive Committee of this Council evolved into the Strategic Partnership with Education and Business and Industry in order to refocus on the issue of Demand-Driven Workforce Development and Training/Retraining.

- Arizona Automobile Dealers Association—Working with NATEF, AYES and ASE to develop and train the automotive industry's future workforce. (These national automotive entities have now combined to form a single organization.)

- STEM Board/Council—Participating with the Science, Technology, Engineering and Math Center created by the Governor's office, the Arizona Science Foundation, and private industry, developed and expanded collaboration between academic science, physics, chemistry, CTE engineering/manufacturing robotics programs and industry to increase the preparedness of students for high wage, high demand, high skill careers of the future.

- Hotel and Restaurant Management National Board/Council—Working in partnership with Northern Arizona University's School of Hotel and Restaurant Management and business and industry nationwide to enhance and expand curriculum, internships, and articulation between secondary and postsecondary education to produce the industry's future workforce. A new Executive Council was formed to provide oversight, validation, and support of the Board's work.

Arizona CTE continues to build and promote partnerships with the State's universities, community colleges, other agencies, professional associations, business and industry, and foundations to build strong, relevant CTE programs enabling students to achieve the State's academic standards. During FY08-09, examples of CTE partnerships are:

- Arizona State University Office of Workforce Education and Development and University of Arizona to provide professional development opportunities to CTE teachers, validate program standards, and build effective program assessments;

- Arizona community colleges aligning CTE programs to build the foundation for Programs of Study;
- Flinn Foundation to participate in the State's initiative to build a biosciences pipeline beginning with developing effective bioscience CTE programs in high schools;
- University of Arizona Bio-5 to develop Program of Study for biosciences. The partnership offers on campus experiences for high school seniors as well as, provides professional development for secondary bioscience teachers to align curriculum, instruction and credentialing to meet requirements for dual enrollment as an essential element of the Program of Study;
- University of Arizona Engineering and Arizona State University Poly-Technical Institute to develop Program of Study for Engineering Sciences. The partnership provides professional development opportunities for secondary engineering teachers to align curriculum, instruction and credentialing to meet requirements for dual enrollment as an essential element of the Program of Study.

7. Serving individuals in state institutions;

Arizona continues to distribute one percent of the State Secondary Perkins allocation, using the local plan/application process, to State Corrections Institutions serving youth. The Arizona Department of Juvenile Corrections works with a unique set of population-appropriate measures for its CTE students, and also provides services for special populations. Those measures include (1) equivalency proficiency credential (GED) participation, (2) employment, (3) return to secondary education, and (4) enter postsecondary education and training. These measures are attached to funding. Evaluation criteria define outcomes for each goal in the local application.

Four facilities served a total of 928 students in FY08-09, of which 114 were designated special education students. Students participated in eight CTE programs, and staff participated in ongoing professional development. Funding was also utilized to support a Literacy Coach to provide assistance and mentoring for students and CTE teachers. Approximately 60% of students showed gains in both math and reading. Overall placement rate for those students who were eligible for out-of-agency placement (524) was 71.2 %. Some students were placed into more than one category: 51.2% were placed in school; 15% attended GED courses; 14.2% enrolled in postsecondary; 11.3% secured employment; 8.3% enrolled in job training programs. Additional highlights include students participating in Career and Technical Student Organizations (CTSO) and activities, students' receiving dual enrollment credits from Rio Salado Community College, as well as several critical business partnerships.

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

Arizona's CTE program offerings are determined by analyzing Arizona's labor market data. Only those programs which reflect high skill, high wage, and high demand occupations are supported by CTE funding. Statewide leadership dollars support these programs and students through several applications. In Arizona, special population students are mainstreamed, therefore, all students including special populations, are afforded opportunities and support for success in these high skill, high wage and high demand programs. Special populations are provided accommodations as appropriate, to ensure success in achieving the most rigorous outcomes possible. In addition, districts must include representatives of special populations in their Annual Local Evaluation process to help to insure special population students' success.

Statewide leadership dollars supported ongoing workshops and technical assistance to support success for all students including special populations. In addition to Career Information and NT, specific sessions included Classroom Management, Academic Integration in CTE, Using CTE Assessment Results to Drive Instruction, specific program-related workshops, and others.

9. Offering technical assistance for eligible recipients.

In addition to technical assistance related to NT issues and AZ Department of Juvenile Corrections (see Items 5 and 7), State Leadership dollars supported ongoing technical assistance across the State involving program improvement, data collecting/reporting, technical skill attainment/assessment, and guidance and counseling. During FY08-09, teams of representatives of the CTE Section visited eight LEAs which participated in Perkins funding to conduct PAR team visits. The LEAs were selected by determining which districts had the highest risk factors based on various data having to do with enrollment, reporting, fiscal accountability or other factors.

Additionally, ADE/CTE staff provided monthly technical assistance meetings conducted for all LEA CTE administrators. These meetings focused on providing information and technical assistance related to Perkins requirements such as Local Program Evaluations, data collection and reporting, guidance and counseling, professional development or other CTE issues.

Online web reports to LEAs are updated and modified annually to reflect current changes as necessary. For the FY08-09 three new reports were created to allow LEAs to view Performance Measures reports using a variety of criteria.

The CTE staff provides technical assistance to CTE teachers, administrators, and other appropriate personnel through individual, small group, regional and state-wide delivery strategies for the purpose of informing, updating, and addressing CTE issues. CTE program staff provide technical assistance on specific program and CTSO issues. Fiscal management information staff provide technical assistance on financial and management and information systems. Data specialists assist with data quality issues. Basic Grant staff assist district personnel in areas related to the Basic Grant application and implementation.

Annually at the CTE/ACTE$_{AZ}$ Summer Conference technical assistance opportunities are provided to educators from across the State. An all day session called “Online Technical Assistance for CTE Funding” has been added to the CTE/ACTE$_{AZ}$ Summer Conference to provide training for reporting information to ADE/CTE during the upcoming year. Updates and changes are incorporated for the upcoming reporting year.

B. Permissible Activities Include:

10. Improving career guidance and academic counseling programs;

CTE continued monetary partnerships with Northern Arizona University and Arizona Department of Economic Services. This partnership purchased the yearly AzCIS subscription contract, so that all Arizona K-12 students have an electronic career and educational planning tool available free 24-7. CTE hosted AzCIS training workshops for teachers, guidance counselors, career specialists, and secure care personnel to improve career and academic guidance services. To enhance services an AzCIS Training Guide and supporting documents were developed to enable the end users to use AzCIS more efficiently within their schools. Using Leadership Funds, Arizona supports a State Career Guidance Counselors Supervisor.

To enhance career guidance and academic counseling the State Career Guidance Counselors Supervisor offered a variety of on-site technical assistance and PAR Team visits. LEAs were offered guidance or resources so that they could better guide students in making career and educational decisions. CTE in partnership with Arizona Educational Services Agencies offered several regional workshops so that stakeholders are more informed for student career and educational advisement and guidance.

11. Establishing agreements, including articulation agreements, between secondary school and postsecondary career and technical education programs to provide postsecondary education and training opportunities for students;

The Perkins grant recipients including secondary, postsecondary, and Tech Prep Consortia collaborated with partners in establishing articulation agreements. These agreements provide postsecondary education and training opportunities for students.

Goal 9 of the secondary grant and Goal 10 of the postsecondary grant specifically address articulation. The goals state "Link secondary and postsecondary CTE programs including offering at least one Program of Study that may include the opportunity for secondary education students to participate in dual or concurrent enrollment programs and Tech Prep, to acquire postsecondary education credits."

Approximately 85% of all secondary CTE programs have been articulated to postsecondary through written and signed Curricular Flow Agreements. Curricular Flow Agreements are developed utilizing the Tech Prep Consortia which hold articulation activities that connect secondary and postsecondary instructors and points of contacts in sessions where curriculum is compared and coordinated in an effort to reduce duplication of course work, create a sequence of courses and reveal possible dual credit opportunities. Approximately 70% of the Curricular Flow Agreements also include a 'for credit' element that earns the student postsecondary credit.

12. Supporting initiatives to facilitate the transition of sub-baccalaureate career and technical education students into baccalaureate programs;

Activities that support initiatives to facilitate the transition of sub-baccalaureate Career and Technical Education students into baccalaureate programs are mostly centered on the Arizona Transfer Articulation Support System (ATASS) established by postsecondary institutions. Each program or department at the postsecondary level has established official committees to coordinate the articulation of credit for courses from the community college system to the university system. Each community college has representatives on each ATASS. Meetings are held twice per year for each program area. There is a formal method for submission of courses from the community college through the ATASS committee to the university for approval of transfer credit.

One of the Arizona Governor's P-20 Council's major goals is to improve and align education systems within Arizona. CTE State staff continues to serve on a variety of committees to expand pathways and promote awareness and opportunities for students in the educational pipeline.

13. Supporting career and technical student organizations;

CTE supports Career and Technical Student Organizations (CTSO) including FFA, FBLA, HOSA, FCCLA, DECA, SKILLSUSA and FEA. During FY07-08 CTSO participation became a required essential element for program eligibility for Perkins Funding. Since that time membership has more than doubled to 40,000 student CTSO members. Participation has also grown by approximately 23% to 25,000 member participants. CTE supports activities that enhance CTSO participation including:

- professional development activities for chapter advisors
- curriculum integration activities
- engagement of business and industry and postsecondary partners
- State staff CTSO activities

14. Supporting public charter schools operating career and technical education programs;

Arizona public charter schools are eligible for the same resources and services to support CTE as non-charter public schools. During the FY08-09, twelve charter schools participated in the Basic Grant offering a variety of CTE programs. Charter school teachers and administration received the same technical assistance and professional development opportunities as non-charter public schools.

15. Supporting career and technical education programs that offer experience in, and understanding of, all aspects of an industry for which students are preparing to enter;

All CTE programs in Arizona have an option of offering Cooperative Education and Internship courses that offer industry experience related to the identified CTE program. State leadership dollars provide support for administrators and staff offering these courses with onsite technical assistance, simulated industry settings, and current information and resources posted on our Arizona CTE website.

16. Supporting family and consumer sciences programs;

N/A

17. Supporting partnerships between education and business, or business intermediaries, including cooperative education and adjunct faculty arrangements at the secondary and postsecondary levels;

See comprehensive response in Item 6. In addition, Arizona CTSOs have ongoing partnerships with over 200 businesses in support of CTSO activities. Partnerships included instruction, judging, in-kind donation of equipment, supplies, and personnel. Businesses also provide scholarships for student advancement to postsecondary education.

18. Supporting the improvement or development of new career and technical education courses and initiatives, including career clusters, career academies, and distance education;

Every two years Arizona utilizes Arizona Labor Market Information to update the CTE Program List. During the FY08-09 CTE contracted Arizona Department of Commerce Research and

Administration Division to provide data on current job openings, wages and O'NET data for all available Standard Occupational Classification codes. The research resulted in the 2010 CTE Program list. New and revised programs/options identified to be delivered in FY09-10 include: Heavy/Industrial Equipment Maintenance Technologies, Transportation Technologies-General Service Technician, Air Transportation, Performing Arts-Technical Theatre and Arts Management, and Business Operations and Support Services. The end result of the research is a market driven list of CTE programs available to school districts.

Standards for these new CTE programs were developed for schools to implement in FY09-10.

19. Awarding incentive grants to eligible recipients for exemplary performance or for use for innovative initiatives under Sec. 135(c)(19) of *Perkins IV*;

Arizona does not pool local funds as described in Sec. 135(c)(19). However, Arizona has used Reserve Funds from the funds allocated for secondary recipients to develop innovative programs in new and emerging occupations for areas such as biosciences and engineering sciences. Six local districts received an Innovative CTE Program Project award in FY08-09. These districts will be used as models for upcoming innovative programs in Arizona.

20. Providing activities to support entrepreneurship education and training;

Arizona CTE is an active member of the Consortium for Entrepreneurship Education, and actively supports entrepreneurship education. Currently Entrepreneurship is a program option under Marketing Education.

21. Providing career and technical education programs for adults and school dropouts to complete their secondary school education;

N/A

22. Providing assistance to individuals who have participated in Perkins assisted services and activities in continuing their education or training or finding appropriate jobs;

N/A

23. Developing valid and reliable assessments of technical skills;

To address increased federal requirements for technical skill attainment, Arizona has implemented the Arizona Skill Standards Assessment System. To accomplish this, an Arizona Career and Technical Education Skill Standards Assessment System Stakeholders Committee was created comprised of executive level representatives from business and industry. CTE partnered with Arizona State University Workforce Education and Development Office and Vocational Technical Education Consortium of States (VTECS) to develop the assessment system. Standards and measurement criteria for each CTE program/options are industry-validated by teams of incumbent workers representing specific industries. Assessment items are linked to each standard.

The Arizona CTE Assessment System certifies and documents student skill attainment of industry-validated technical knowledge and skills through the online end-of-program assessments. It provides a web-based tool that allows students to take assessments quickly

and easily online at the end of each semester. It provides immediate feedback to teachers and administrators regarding attainment of specific knowledge and summative results for reporting purposes. The system issued certificates and student skill attainment documentation at the completion of the Spring 2009 testing window.

24. Developing or enhancing data systems to collect and analyze data on secondary and postsecondary academic and employment outcomes;

The Arizona Online Internet Data Reporting System undergoes programming updates, changes and enhancements annually. Modifications to programming for FY08-09 included matching records from our state-wide student data reporting system to the CTE online system to help consolidate data collection efforts, which ultimately insures more accurate and reliable data. Online reports are updated annually, and FY08-09 included the creation of reports that gave LEAs instant access to the District Level of Performance for each Performance Measure.

25. Improving the recruitment and retention of career and technical education teachers, faculty, administrators, or career guidance and academic counselors, and the transition to teaching from business and industry, including small business; and

A newly developed CTE K-12 Certification process allows for the equivalent of six semester hours of required continued education to be obtained, (15 clock hours equals 1 semester credit hour) through staff/professional development activities offered by the LEA, professional organizations, universities, or community colleges, if verified and approved by the ADE/CTE. This option is available for applicants seeking to meet the requirements to move from a Provisional CTE K-12 Certificate to a Standard CTE K-12 Certificate. This process was approved by the Arizona State Board for Vocational and Technological Education and has been in effect since May 1, 2009.

26. Supporting occupational and employment information resources.

See comprehensive response in Item 18. In addition, Arizona utilizes a diverse selection of career exploration resources, including classroom materials and lesson plans. They were distributed to CTE teachers during training sessions. Additional resources were provided to districts for student use.

Progress in Developing and Implementing Technical Skill Assessments

1. The program areas for which the State has technical skill assessments:

In the 2008 CAR Arizona reported that the State had implemented assessments for 13 program areas. During FY08-09 Arizona implemented technical skill assessment in 21 CTE program areas in secondary education.

During the 2008 fall semester, over 7,000 CTE students participated in the Arizona CTE Assessment System. During 2009 spring semester over 10,000 students participated in the CTE Assessment System, participating in pilot and final, end-of-program, assessments. The primary purpose of the pilot assessments is to check test item validity and reliability. Analysis of the results of the 9 pilot assessments led to modification of the items to improve validity and reliability. Results of the Pilot Assessments were not used for reporting Perkins technical skill attainment. Below is a listing of the pilot program assessment areas:

FY08-09 Pilot Assessments

CIP	Program
15.1300	Drafting and Design Technology Option B - Electronics Drafting
47.0600	Automotive Technologies Option D – Aircraft Mechanics
51.0800	Pharmacy Support Services - Option A
51.0900	Emergency Medical Paramedics - Option B
51.0900	Surgical Technician - Option C
51.3500	Therapeutic Massage
52.1800	Professional Sales and Marketing - Option A
52.1800	Entertainment Marketing - Option C
52.1800	Entrepreneurship - Option D

Data for technical skill attainment for Core Indicator 2S1 was obtained from the results of the end-of-program assessments for eligible concentrators in the following 21 areas:

FY08-09 Secondary End-of-Program Assessments with Technical Skill Attainment Data

CIP	Program
01.0100	Ag Business Management-Agriscience Option B - Plant Systems
01.0100	Ag Business Management-Agriscience Option C - Animal Systems
01.0100	Ag Business Management-Agriscience Option F - Agribusiness Systems
12.0500	Culinary Arts
13.1200	Education Professions
15.1300	Drafting and Design Technology Option A- Architectural Drafting
15.1300	Drafting and Design Technology Option C- Mechanical Drafting
46.0200	Carpentry Technologies Option A - Carpentry
46.0200	Carpentry Technologies Option B - Cabinetmaking
46.0400	Construction Technologies
47.0600	Automotive Technologies Option A - Automotive Technology
47.0600	Automotive Technologies Option B - Automotive Collision Repair
51.0800	Allied Health Services Option B - Laboratory Assisting
51.0800	Allied Health Services Option D - Sports Medicine & Rehabilitation Services
51.0800	Allied Health Services Option E - Medical Assisting Services
51.1600	Nursing Services
52.0200	Business Management and Administrative Services
52.0300	Accounting and Related Services
52.0800	Financial Services
52.1900	Design and Merchandising Option A - Fashion
52.1900	Design and Merchandising Option B - Interior

In summary, at the secondary level Arizona is developing valid and reliable assessment procedures to measure technical skill attainment.

At the postsecondary level, Arizona has 1P1 data in 26 program areas. It is challenging to obtain both the denominator and the numerator for technical skill attainment since industry and licensing agencies usually send assessment results/credentials directly to adult students. The students are expected to self-report and may neglect to do so. Arizona is exploring efforts to improve retrieval of assessment results.

Districts may also choose to create their own end-of-program assessment and submit it for annual review and approval by the Arizona Skills Standards Commission. Eight of the 26 programs were assessed with locally developed end-of-program assessments validated by the Arizona Skills Standards Commission. The chart below identifies programs assessed for which results were received.

FY08-09 Postsecondary Programs with Technical Skill Attainment Data

CIP	Program
01.0100	Agricultural Business Management - Agriscience
10.0200	Audiovisual Technology
13.1200	Early Childhood Education
13.1200	Education and Training: Education Professions – Sign Language Interpretation
15.0600	Industrial Manufacturing
15.1200	Information Technologies – Network Technologies
15.1300	Drafting and Design Technology
43.0200	Fire Science
46.0300	Electrical and Power Transmission
46.0400	Construction Technologies
47.0200	Heating/Air Conditioning Maintenance
47.0600	Automotive Technologies
48.0508	Welding Technology
49.0200	Heavy Equipment Operations
51.0600	Dental Assisting
51.0800	Allied Health Services - Medical Assisting Services
51.0800	Allied Health Services – Medical Imaging Support Services
51.0800	Allied Health Services – Sports Medicine and Rehabilitation Services
51.0900	Diagnostic and Intervention Technologies – Emergency Medical Paramedics
51.0900	Diagnostic and Intervention Technologies– Respiratory Therapy Technician
51.1600	Nursing Services
51.1600	Nursing Services – Nursing Assistant
51.1600	Nursing Services – Licensed Practical Nursing
52.0200	Business Management, Marketing and Administrative Services
52.0200	Business Management, Marketing and Administrative Services - Paralegal
52.1900	Design and Merchandising – Fashion Design and Merchandising

2. The estimated percentage of students who would be reported in the State's calculation of CTE concentrators who took assessments:

At the secondary level, Arizona required districts to assess all eligible students in all 30 CTE program areas as assessments became available. Several of the programs in the 2008-2009 list have the largest enrollment in Arizona. ADE/CTE State staff has provided extensive technical assistance to secondary CTE assessment administrators and plans to continue to provide additional resources to emphasize the importance of assessing all eligible students. In comparing the number of eligible concentrators to the number of concentrators who took the test, Arizona exceeded the 60% benchmark.

Arizona will use the assurances and goals in the Local Plan/Application to ensure full participation in CTE Assessment System.

At the postsecondary level, Arizona relies on self-reporting by the community colleges that in fact rely on self-reporting by CTE Concentrators. The Arizona Stakeholders Committee for the ADE/CTE Assessment System has established a postsecondary subcommittee to focus on 1P1 data and the need to increase the percentage of the CTE Concentrators to be reported in the CAR. Arizona will continue to assist postsecondary institutions in identifying relevant and applicable industry assessments and licensures while establishing best practices for retrieving results for those concentrators who pass industry assessment/licensure.

3. The State's plan and timeframe for increasing the coverage of programs and students reported in this indicator in the future:

At the secondary level, Arizona has prepared a CTE program assessment timeline to annually increase the number of CTE programs with assessments so that all CTE programs will have an assessment. In the future, the denominator reported in Core Indicator 1S2 will include all eligible CTE concentrators in all program areas. The following 20 pilot CTE program assessments areas are in the final stages of industry-standard validation and assessment item development. Arizona anticipates reporting on 50 programs in the 2010 CAR.

Since these programs have the highest student enrollment, Arizona will see a significant increase in the number of students participating in the ADE/CTE Assessment System.

Additional Programs Assessments Scheduled for Implementation FY09-10

CIP	Program/Option
01.0100.0	Environmental Service Systems Option G
01.0100.5	Natural Resources Systems Option D
13.1210.0	Early Childhood Education
15.0000.0	Engineering Sciences
15.1200.2	Computer Maintenance Option A
15.1200.3	Network Technologies Option B
15.1200.4	Software Development Option C
15.1200.5	Web Page Development Option D
41.0100.2	*Bio-medical Option A
41.0100.3	*Bio-environmental Option B

CIP	Program/Option
41.0100.4	*Bio-innovations Option C
43.0100.0	Law, Public Safety and Security
43.0200.0	*Fire Science
48.0500.2	Automation/Robotics Option A
48.0500.3	*Computer Controlled Fabrication Option B
48.0508.0	Welding Technologies
50.0100.2	Technical Theatre Option A
50.0100.3	Arts Management Option B
52.0400.0	Business Operations Support and Assistant Services
52.1800.3	Advertising and Public Relations Option B

*Contingent upon completion of program standards validation and assessment item development

In summary, at the secondary level, Arizona anticipates increasing the denominator for technical skill proficiency and intends to implement the final 20^{+} program/option assessments for reporting in the FY10-11 CAR. ADE/CTE will provide districts with technical assistance promoting the benefits of the Arizona Skills Standards Assessment System credential. Local districts will be held accountable for increasing the percentage of participation annually.

Postsecondary institutions are encouraged to use the ADE/CTE Assessment System for end-of-program assessments of students in those programs for which there is not an appropriate industry credential. During the FY09-10, postsecondary institutions will expand the percentage of participation and the number of industry credentials and licenses for reporting 1P1 data. In addition, end-of-program assessments will be administered for the first time in the four program areas on the chart below.

Additional Postsecondary Programs to Report Technical Skill Attainment for FY09-10

CIP	Program
15.1200	Information Technologies – Network Technologies
46.0300	Electrical and Power Transmission Technologies – Residential Electrician
47.0600	Transportation Technologies – Diesel Engine Repair
51.1500	Mental and Social Health Services

Implementation of State Program Improvement Plans

Arizona met or exceeded each of the eight core indicators of **secondary** performance. A State Improvement Plan was not necessary for FY08-09.

PM	Performance Measure	Negotiated SALP	State Level of Performance
1S1	Academic Attainment - Reading	49.10%	93.90%
1S2	Academic Attainment - Math	40.50%	90.83%
2S1	Technical Skill	65.00%	99.69%
3S1	HS Completion	76.00%	98.83%
4S1	HS Graduation	76.00%	98.65%
5S1	Placement	50.00%	69.19%
6S1	NT Participation	21.50%	22.85%
6S2	NT Completion	10.00%	16.00%

Arizona met or exceeded each of the six core indicators of **postsecondary** performance. A postsecondary State Improvement Plan was not necessary for FY08-09.

PM	Performance Measure	Negotiated SALP	State Level of Performance
1P1	Technical Skill Attainment	90.5%	64%
2P1	Credential, Certificate, or Degree	36.0%	35%
3P1	Student Retention or Transfer	60.2%	42%
4P1	Student Placement	58.0%	35%
5P1	NT Participation	24.2%	20%
5P2	NT Completion	18.6%	15%

Implementation of Local Program Improvement Plans

In FY08-09, Arizona had 111 Secondary Basic Grant Recipient LEAs. Of those, 55 districts did not attain 90% of the SALP for one or more Performance Measures.

Districts with Improvement Plans	55
Number of Districts with an Improvement Plan for 1S1	4
Number of Districts with an Improvement Plan for 1S2	4
Number of Districts with an Improvement Plan for 2S1	10
Number of Districts with an Improvement Plan for 3S1	3
Number of Districts with an Improvement Plan for 4S1	3
Number of Districts with an Improvement Plan for 5S1	17
Number of Districts with an Improvement Plan for 6S1	26
Number of Districts with an Improvement Plan for 6S2	38

All districts that were required to create an Improvement Plan will be provided with technical assistance beginning in January, 2010. The core indicators most commonly missed were the Nontraditional Measures. With the implementation of State Assessments being new for 2008-09, this measure was the next most commonly unattained.

There were 10 Postsecondary Basic Grant Recipients in FY08-09. Of those, seven districts did not attain 90% of SALP for one or more Performance Measure.

Districts with Improvement Plans	7
Number of Districts with an Improvement Plan for 1P1	0
Number of Districts with an Improvement Plan for 2P1	3
Number of Districts with an Improvement Plan for 3P1	1
Number of Districts with an Improvement Plan for 4P1	3
Number of Districts with an Improvement Plan for 5P1	4
Number of Districts with an Improvement Plan for 5P2	5

All districts requiring an Improvement Plan will be provided with technical assistance prior to submitting their Basic Grant Application for FY09-10. The Improvement Plan will be a primary focus in their FY09-10 Basic Grant. The nontraditional core indicators were missed most frequently. Technical assistance will be provided to analyze contributing factors and accurate reporting.

Tech Prep Grant Award Information

Tech Prep programs are carried out through a consortium composed of secondary and postsecondary participants. A consortium is identified as a single college/LEA, or county educational agency (in partnership-having a single name). One of the members acts as a fiscal agent to establish a central governance structure as described in the Tech Prep governance structure included in the Tech Prep application. Institutions that desire to participate in a consortium are required to execute an Intergovernmental Agreement, or similar document, that is approved annually by the consortium. Each consortium is required to have articulation agreements to receive funding.

Arizona Tech Prep consortia are funded on a formula basis. There are currently eleven consortia. Recommendations regarding this process were established from input gathered during state-wide CTE dialog meetings in addition to input collected from the State Plan Work Group. Funding is available to each of the established consortia members. The formula factors are:

- A minimum of $120,000 per consortia is funded in order to give special consideration to rural areas ($1,320,000).
- Consortia must demonstrate meet/exceed performance and data levels in order to receive funding above the base level of $120,000. Data and performance levels included articulations, sites, and student populations. Three consortia qualified for additional $755,000 based on:
    - Secondary Tech Prep enrollment by consortium.
    - Secondary Tech Prep concentrators that have transitioned to postsecondary education.
    - Postsecondary Tech Prep enrollment as determined from the past five years of secondary Tech Prep concentrator graduates.
    - Total number of secondary and postsecondary Performance Measures achieved.
    - Statewide activity funding

Components within the grants are also evaluated according to the State priorities. The State priority grant components include the following based on needs as determined annually by Tech Prep State staff and consortia directors:

- Articulation
- Programs of Study
- Professional Development
- Technology needs
- Partnerships
- Work-Based Learning opportunities
- Assessments
- Communication/Education/Recruitment
- Access and equality for Special Populations/Equity/Nontraditional Careers
- Counseling/Guidance
- Evaluation

In addition to the current components, there are specific State goals targeting counselors, low performance, academic attainment, career pathways, and business partnerships. Tech Prep State staff may identify policy barriers affecting Tech Prep, Programs of Study, articulations, dual/concurrent enrollment, and other priorities as determined during the plan and seek viable solutions. All Consortia are establishing baselines for Tech Prep. All Consortia improved from the previous year. Special attention will be given in the areas of remediation and technical skill attainment.

Tech Prep Local Funding Levels

FY08-09 Tech Prep Consortia	Funding Levels
Yuma/Western Arizona Consortium	$120,000.00
Cochise Consortium	$120,000.00
Coconino Consortium	$120,000.00
Eastern Arizona Consortium	$120,000.00
Eastern Maricopa Consortium	$367,327.00
Mohave Consortium	$120,000.00
Northeastern Arizona Consortium	$120,000.00
Western Maricopa Consortium	$311,699.00
Pima/Santa Cruz Consortium	$308,194.00
Pinal Consortium	$120,000.00
Yavapai Consortium	$275,000.00
Total	$2,075,000.00

Appendix
SY08-09 CTE PROGRAM LIST

CIP	2009 CTE Program List
52.0300	Accounting and Related Services
01.0100	Agricultural Business Management - Agriscience
51.0800	Allied Health Services
10.0200	Audiovisual Technology
47.0600	Automotive Technologies
51.1000	Biomedical Health Technologies
52.0200	Business Management and Administrative Services
46.0200	Carpentry Technologies
46.0400	Construction Technologies
12.0400	Cosmetology
12.0500	Culinary Arts
51.0600	Dental Assisting
52.1900	Design and Merchandising
51.0900	Diagnostic and Intervention Technologies
15.1300	Drafting and Design Technology
13.1210	Education and Training: Early Childhood Education
13.1200	Education and Training: Education Professions
46.0300	Electrical and Power Transmission Technology
15.0300	Electronic Technology
15.0000	Engineering Sciences
52.0800	Financial Services
43.0200	Fire Science
10.0300	Graphic Communications
47.0200	Heating/Air Conditioning Maintenance
49.0200	Heavy Equipment Operations
52.0900	Hospitality Management
15.0600	Industrial Manufacturing
15.1200	Information Technology
43.0100	Law, Public Safety and Security
52.1800	Marketing, Management and Entrepreneurship
51.1500	Mental and Social Health Services
51.1600	Nursing Services
50.0100	Performing Arts
46.0500	Plumbing Services
47.0100	Telecommunications Maintenance and Installers
51.3500	Therapeutic Massage
48.0500	Welding Technology