

South Carolina 2007–08 Narrative Report

Introduction

As the administrative entity for the State Board of Education (State Board), the South Carolina Department of Education (SCDE) is the sole state agency responsible for the administration and supervision of career and technical education programs consistent with state laws and in accordance with the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). The state superintendent of education serves as the chief administrative officer of the public education system as well as serving as the secretary and administrative officer for the State Board. The director of the SCDE's Office of Career and Technology Education (OCTE) is the official representative of the state superintendent in all matters pertaining to career and technology education.

The State Board for Technical and Comprehensive Education (SBTCE) has the statutory responsibility for the approval and maintenance of high-quality instructional programs among the technical colleges under its authority. All programs of study that are two years or less are approved by the SBTCE. The SBTCE regulates the South Carolina Technical College System (SCTCS), a statewide system that includes the sixteen technical colleges and the state-level staff responsible for the coordination and supervision of these two-year technical colleges. During 2007–08, the SCDE collaborated with the SCTCS in implementing the South Carolina Transition Plan and in developing the Five-Year State Plan (State Plan) under Perkins IV. The SCDE also carried out the state administration and leadership activities required of each eligible agency under the federal law.

I. State Leadership Activities

A. Required Uses of Funds

Assessing Career and Technology Education Programs Funded under Perkins IV

The State Plan supports and enhances the statewide priorities for career and technology education (CATE) programs and initiatives expressed within the South Carolina 2020 Vision for Career and Technology Education. Through the ten vision themes of this statewide initiative—accountability, business relationships, curriculum, funding, leadership, marketing, professional development, recruitment, structural change, and technology—the OCTE provides leadership and support to assist local administrators in assessing program needs. State and local advisory councils and committees provide the program-specific business and industry input needed to assess CATE programs.

The OCTE's quality review measures (QRM), which are aligned with the 2020 Vision themes, provide guidance and direction to local educational agencies (LEAs) in establishing, maintaining, and evaluating CATE programs. LEAs that receive state and federal funds are required to conduct a self-evaluation of their CATE programs using the QRM. During 2007–08, OCTE staff members conducted on-site QRM review visits at the request of Chesterfield County School District, with four high schools (February 2008); Georgetown County School District, with four high schools (May 2008); and Lee County School District, with one high school (May 2008). Comprehensive written reports were prepared and sent to the superintendents of each school district visited. Improvements implemented as a result of these reviews included changes to course titles, the addition of new courses, clarification on career clusters, renewed interest and emphasis on student organizations, increased emphasis on integration of CATE and academic courses, and a greater emphasis on CATE programs at the school district level.

Teams composed of OCTE staff members also conducted on-site reviews at Stall High School, the Daniel Morgan Technology Center, and the Florence Career Center. Team members reviewed the CATE program offerings, facilities, and related data. Program support services and data provided by the sending high schools were considered during the reviews of the two career centers. The OCTE review teams provided each site with a debriefing and a detailed report of findings, sharing commendations and recommendations with site and feeder-school staff. The LEAs were challenged to establish short- and long-range "next steps" to address the recommendations cited.

The OCTE provided leadership to LEAs in assessing and meeting the needs of students who are identified as members of special populations under Perkins IV. The local plans and progress reports detail the LEAs' efforts to provide equal access to CATE programs, assess students' needs, support accountability standards, and evaluate the progress of the special populations. OCTE staff members reviewed these annual plans and reports to ensure that the LEAs are assisting special populations in meeting standards and in preparing for further learning and high-wage careers.

Developing, Improving, or Expanding the Use of Technology in CATE Programs

South Carolina ranks first in the nation for the percentage of high schools and middle schools that have implemented the Project Lead the Way (PLTW) pre-engineering and engineering technology curriculum, which combines a sequence of state-of-the-art technical courses with college preparatory courses in mathematics and science. Participation in the FIRST LEGO League competition has increased dramatically and has required the OCTE to host seven regional competitions. The state competition was held at Clemson University and involved more than three thousand participants. Students designed and constructed LEGO robots, thereby integrating mathematics, science, and technology into their problem-solving activities.

Five hundred students representing South Carolina and seven other states also displayed their high-level skills in mathematics, science, and engineering technologies as they competed in the fifth annual FIRST Robotics Palmetto Regional competition. The FIRST Tech Challenge competition held at South Carolina State University was the largest competition in the nation, where more than sixty teams and six hundred students demonstrated high-level skills using robots they had designed and constructed with the assistance of business and industry partners.

Through a partnership with the Oracle Corporation, students were enrolled in the Oracle Internet Academy's database design and management courses, which can lead to industry certification. Students from Stratford High School took top honors in the 2008 Oracle Academy Global Data Modeling competition. The winning students, led by teacher Michael Eason, were recognized for outstanding analytical and technology skills used to create a database that tracks and stores meteorological data. Their project was entitled "Weather Co." and the South Carolina team took eleventh place overall and ranked second among the U.S. finalists.

In 2007–08, the OCTE launched online CATE courses in Health Science Technology 1 (Anatomy and Physiology), Family Life Education 1 and 2, Child Development 1 and 2, Oracle Database with SQL, and Global Markets through the South Carolina Virtual School. Previous CATE offerings, including Keyboarding, Computer Applications, Web Page Design, Medical Terminology, and Pharmacy Technology were continued in 2007–08. Offering electronic courses provides opportunities for students to take CATE courses that may not

otherwise be available to them due to scheduling conflicts or limited CATE program offerings in rural areas.

Offering Comprehensive Professional Development Programs

The Education and Business Summit is a comprehensive, five-day state conference that provides strand-specific information, professional development, best-practice content, and instructional methodology support for CATE instructors, administrators, and guidance staff. Business partners and core academic instructors are invited to participate and engage in activities that focus on the integration of academic and career and technical education. Career and technical content, program-specific concurrent sessions, targeted instructor training, and the South Carolina Association for Career and Technical Education division programming provide direct support to South Carolina's CATE educators. Over twenty-seven hundred attendees participated in the June 2008 Education and Business Summit.

The OCTE conducts state-wide professional development conferences in the fall (October 2007) and spring (March 2008) each year. These conferences provide CATE educators with programmatic information, best-practice knowledge, and Perkins IV updates. The fall conference is hosted in the Upstate region and the spring event is held in the Midlands or Lowcountry regions of the state. Business partners join program staff and CATE instructors, administrators, and counselors in offering pertinent content aligned to the ten themes outlined in the 2020 Vision for Career and Technology Education strategic plan. These conferences also provide connectivity to the CATE-oriented elements of the *High Schools That Work* key practices. Efforts to directly impact building-level instructional support and classroom content delivery are strengthened as attendees see the linkages between the Perkins-oriented strategic plan and whole school reform.

The ninth Institute for New Career and Technology Education Administrators provided professional development for twenty-one participants during five full-day sessions in 2007–08. In addition, each participant completed a two-day mentoring requirement where they traveled to another school or district to observe and learn the day-to-day operations of a new educational setting under the supervision of a veteran CATE administrator. Presenters at the training sessions included individuals with experience in various fields of career and technology education, school board operations, leadership training, legislation, and government. Graduation exercises were held at the 2008 Education and Business Summit where institute completers were recognized during an awards ceremony.

Providing Support to Improve and Integrate Academic and CATE Programs

The OCTE has demonstrated significant interest in the integration of academic and career and technical skills. Staff members provide leadership and support for the whole school reform efforts implemented by an ever-expanding network of schools that are implementing the key practices of *High Schools That Work* and *Making Middle Grades Work*. Along with these activities and the ongoing support provided for South Carolina's Education and Economic Development Act (EEDA) initiatives, the following strategies supported the integration of academic and career and technology education in South Carolina in 2007–08:

- Twenty-one Gateway Academy summer camps provided opportunities for middle school students to explore problem-solving activities in the Science, Technology, Engineering, and Mathematics (STEM) cluster.
- Twelve high schools and career and technology centers have implemented the PLTW Biomedical Sciences™ program. This curriculum makes math, science, and technology

relevant for students by engaging them in hands-on, real-world projects and problems with a health science focus.

- Fifty South Carolina health science and science teachers received training in a unique methodology for teaching anatomy and physiology using student models and reusable clay. The Anatomy in Clay™ teaching aid is an amazing and powerful tool to engage students in learning the body systems, structure by structure, from the inside out.
- The 2008 Education and Business Summit included a strand offering teacher training for industry personnel who are becoming state-certified CATE instructors. In addition to a course specifically addressing the topic of academic and CATE integration, the presentations offered through the Summit's general and concurrent sessions provided content and focus related to the importance of this integration.
- The EEDA's emphasis on career clusters and majors, especially for potential CATE concentrators, helps students and parents make the connection between rigorous academics and challenging CATE course-taking decisions. The OCTE assisted in developing and distributing seventeen cluster guides—one for each of the sixteen nationally identified clusters and an additional cluster implementation guide—to help LEAs, parents, and students better understand the integration of academic and CATE courses within career majors.
- Curriculum standards for thirty CATE courses in nine career clusters were updated by committees that consisted of secondary and postsecondary instructors and business people. During this process, the new or revised CATE standards were cross-walked with pertinent standards in South Carolina's core academic areas of English, math, science, and social studies.

Providing Preparation for Nontraditional Training and Employment

In 2007–08, the OCTE purchased and disseminated *American Careers—A Parent Resource Guide* to school districts across the state. The OCTE also purchased and distributed the resource, *Her Own Words Nontraditional Toolkits*, for sixty-seven districts. During the Education and Business Summit, the OCTE provided a two-day intensive workshop for thirty-two districts that did not meet one or both of the Perkins accountability standards for nontraditional participation and retention. The National Institute for Women in Trades, Technology, and Science provided the training to enable teams of administrators, CATE instructors, career counselors, and career services staff to develop a plan to be implemented in their respective districts. In addition to the two-day training, each district team submitted a strategic plan to better meet the nontraditional participation and retention performance goals. The OCTE also provided on-site training to four districts during the fall of 2008 to assist their efforts to promote nontraditional training and employment.

Supporting Partnerships That Enhance Student Achievement

Partnerships were established between the OCTE and several trade associations as a result of a 2008 South Carolina General Appropriations Act proviso that targeted \$800,000 to these associations to assist high school students with career preparation. The following associations took part in the partnership project: the Hospitality Association of South Carolina, the Mechanical Contractors of South Carolina, the South Carolina Automobile Dealers Association, the South Carolina Hospital Association, and the Maintenance and Construction Technology Alliance. Applications for programs and funding were reviewed and approved on a request-for-proposal basis by the OCTE. Some major components of the

grants included implementing end-of-course testing to assess technical skills, providing supplies and equipment for model programs, supporting teacher conference expenses, assisting with student organization conference and competition expenses, and providing apprenticeship incentives.

Numerous programs and activities were provided across the state for students, counselors, and educators in partnership with the South Carolina Hospital Association. All of these programs were designed to increase awareness of careers in the hospital industry: *Amazing Hospital Careers* road shows, a Health Science and Biomedical Program of Study workshop, the National Healthcare Skill Standards Assessment pilot, and the HOSA (Health Occupations Students of America) Success workshop.

In May 2008, the OCTE director attended the annual Salute to Manufacturing event, where some of the state's top manufacturing operations and winners of the 2008 Student Design Challenge were recognized and received awards. More than fifteen hundred students participated in the design contest, which uses art to introduce young students to careers in the fields of manufacturing and engineering. The OCTE has a partnership with the Silver Crescent Foundation, which recognizes twelve technology champions from the secondary graduates. The Foundation contributes a \$1,000 scholarship to each student. In 2007–08, South Carolina's technical colleges committed an additional \$1,000 for each technology champion who enrolled in a technical college.

Serving Individuals in State Correctional Institutions

The South Carolina Department of Juvenile Justice (SCDJJ) and the South Carolina Department of Corrections (SCDC) received Perkins Title I funds in 2007–08 on the basis of their designation as special school districts. At the SCDJJ, the federal funds were used to provide a teacher to work with CATE students needing additional instruction or academic remediation, to provide professional development for CATE teachers, and to purchase equipment and supplies to improve CATE programs. The SCDC used the federal funds for professional development and purchased instructional supplies and equipment to expand and improve CATE programs in the Palmetto Unified School District.

Providing Support for Programs for Special Populations

The OCTE staff reviews and makes recommendations to the LEAs' proposed activities and uses of Perkins funding to assist special populations in CATE programs and provides the leadership for several initiatives for students preparing for nontraditional fields. The OCTE's coordinator for special populations has begun the process of developing a special populations training manual to assist the LEAs in properly identifying special populations students and in providing effective support services to them as they prepare for high-skill, high-wage, or high-demand occupations. The coordinator continues to provide technical assistance throughout the year to the LEAs on an as-needed basis and will facilitate training to support programs for special populations during the 2009 Education and Business Summit.

Offering Technical Assistance for the LEAs

In 2007–08, the OCTE provided technical assistance to numerous schools and districts to assist them in the process of developing majors and identifying concentrators and completers in the cluster areas related to business, marketing, finance, and information technology. Local administrators were also advised regarding course offerings that support

rigorous and relevant instruction that can lead to industry certification. Targeted technical assistance was provided to nine school districts at their request.

The health science technology programs received technical assistance through a professional development conference that provided one hundred teachers with information on the sustainability of the Health Science career cluster, innovative and best practices, instructional materials, partnerships, and teaching strategies. Sixty-five health science teachers participated in the health science virtual mentoring program to support first-year and second-year health science teachers.

The OCTE provided on-site and state-level assistance to programs in the Education and Training; Hospitality and Tourism; Human Services/Family and Consumer Sciences; and Arts, Audio-Video Technology, and Communication clusters. The OCTE examined family and consumer sciences (FACS) programs and made recommendations for improvements, especially in the area of restructuring local FACS programs to offer completer options for students. On-site visits to various school districts helped to clarify the requirements for offering a completer program. Teachers in all of these cluster areas were provided with program updates, resources for the classroom, and other pertinent information.

The engineering and industrial technology education program staff conducted professional development sessions to provide teachers and administrators with information on new technology, industry certification, program development and revision, and student organizations. Approximately three hundred teachers in the Arts, Audio-Video Technology, and Communications; Law, Public Safety, Corrections, and Security; Science, Technology, Engineering, and Mathematics; and Transportation, Distribution, and Logistics career clusters attended professional development sessions in 2007–08. The teachers received technical assistance regarding methods of restructuring programs to address new and emerging technologies, development of articulation agreements, implementation of work-based learning activities, national skill standards, and industry/national certification. CDs containing new and revised course standards, along with resources for teachers, were sent to schools.

Professional development sessions for teachers in the Architecture and Construction and the Manufacturing clusters covered twelve programs: Air Conditioning and Refrigeration Technology, Building Construction, Cabinetmaking, Carpentry, Electricity, Electronics, Machine Technology, Masonry, Mechatronics Integrated Technologies, Metal Fabrication, Plumbing, and Welding Technology. In 2007–08, two hundred ninety-five teachers attended the OCTE's annual teachers' meetings for these cluster areas. Content and technical assistance provided at the meetings addressed updates to course standards, competitive events and student organizations, industry certifications for teachers and students, end-of-course testing, and technology updates. Customized technical assistance for schools was also provided on the basis of individual district needs during the year.

In 2007–08, there were one hundred fifty-four *High Schools That Work (HSTW)* and eighty-eight *Making Middle Grades Work (MMGW)* sites in South Carolina. During the school year, twenty-two high schools and thirty-two middle schools were provided with a three-day *HSTW* or *MMGW* technical assistance site visit (TAV), as applicable. OCTE staff members also conducted follow-up visits to schools where TAVs were conducted in 2006–07 to help the schools stay focused and to promote accountability for implementing *HSTW*.

OCTE staff members met with school faculties and school boards and provided ongoing assistance to *HSTW* site coordinators and principals. Eighty-eight schools received technical assistance with their *MMGW* initiatives through phone calls, e-mail, letters, resource

materials, and one-day visits. The OCTE staff collaborated with the Southern Regional Education Board representatives to offer the *HSTW* and *MMGW* site development workshops, which involved nearly six hundred educators representing sixty-eight new sites over a three-day period at the 2008 Summit. Site representatives worked in teams to review school data as it related to the key practices of each initiative and were provided with resources needed to develop the first-year action plans for their schools.

B. Permissible Activities

Improving Career Guidance and Academic Counseling Programs

The OCTE provided monthly “Carolina Careers” workshops produced and broadcast through the South Carolina Educational Television Network’s (SCETV) Office of Instructional Technology for educators at all levels. These offerings supported Perkins IV efforts in South Carolina by featuring such topics as gender equity/nontraditional issues, the role of comprehensive guidance in accountability, the role of professional development, and statewide career guidance “best practices.” These workshops may be viewed in streaming video on the SCETV Web site “Career Aisle” at <http://knowitall.scetv.org/careerisle/>. The new site is a valuable portal for assisting students, their family members, and educators with career development and with planning programs of study. The OCTE also updated the career guidance model lesson plans, activities, and resources and correlated these components to the revised student competencies of the “Learning to Work” domain of the South Carolina Comprehensive Developmental Guidance and Counseling Program Model.

The 2008 Education and Business Summit offered many sessions related to career guidance and counseling for both certified and non-certified guidance personnel who work with CATE students. Programming at the event enabled attendees with the Global Career Development Facilitators (GCDF) national certification to gain knowledge and work toward their recertification requirements. Sessions were provided to encourage career guidance and academic counseling personnel to meet and share information regarding best practice policy and procedures. State-level and nationally recognized guest presenters supported the state’s focus on career guidance and academic counseling programs.

Supporting Career and Technical Student Organizations

Six career and technical student organizations (CTSOs) received grants of \$7,000 each to provide leadership and skill development activities. DECA—An Association of Marketing Students, the Future Business Leaders of America, the Family Career and Community Leaders of America, HOSA, SkillsUSA, and the Technology Students Association, along with the FFA, continued to support the CATE program curricula through skill-building and leadership events throughout the year. The combined membership of these South Carolina student organizations for 2007–08 was 19,823.

During 2007–08, the OCTE piloted a CTSO accountability packet to create an even playing field for all student organizations. This packet provides the OCTE with information pertinent to the operations of the CTSOs in addition to encouraging those operating in mediocrity to improve practices for the benefit of the students served. The packet consists of a program of work to supply evidence of the following at the end of the fiscal year: partnerships/sponsorships, recruiting strategies, marketing and publicity, professional and student development, technology integration, administrative data, and funding. CTSOs that demonstrate exemplary practices such as increasing membership or sponsoring national competition winners or national officers are eligible for incentive funding.

An OCTE staff member attended and coordinated eighteen SkillsUSA Championships at the state conference, April 17–19, 2008. Over eight hundred students, teachers, and parents attended the event. Thirty-five different championships were planned and held at the Carolina First conference center. South Carolina membership in SkillsUSA grew by over fifteen hundred students this year to over five thousand.

Supporting CATE Programs That Address All Aspects of an Industry

Seven hundred health science completers participated in the National Healthcare Foundation Skills Assessment/Certificate Program. Fifty-one health science programs are state-approved by the South Carolina Department of Health and Human Services as nurse aide training programs and provide the national certification for students interested in nursing careers. In the Hospitality and Tourism cluster, students were encouraged to complete the required course work, end-of-course examinations, and work-based learning experiences needed to obtain national/industry certifications such as ProStart, Lodging Management, and ServSafe.

Twenty automotive technology programs have become NATEF/ASE (National Automotive Technician Educational Foundation/Automotive Service Excellence) certified and are meeting industry standards both in the facilities and curriculum, which allows students the opportunity to obtain industry certification. Six automotive technology programs are certified by the Automotive Youth Educational Systems (AYES) and are given industry support through internship programs in local dealerships. The BMW Corporation hosted the Automotive Collision Repair student competition at their facility, giving students the opportunity to use state-of-the-art equipment in their problem-solving activities. Fifty automotive instructors received technical training in new and emerging technologies from major automobile manufacturers such as BMW, General Motors, Honda, and Toyota in the areas of biofuels development, hydrogen fuel systems, electrical power vehicles, and diesel technology.

Teachers and students in the Business, Marketing, and Administration and the Information Technology career clusters were provided with opportunities to obtain national credentials and certifications in the area of expertise addressed in courses such as Integrated Business Applications (Microsoft Office Specialist and Microsoft Certification Application Specialist); Information Technology Foundations (IC³); Oracle SQL and PL/SQL (Oracle Academy Certification); Networking (CompTIA Network+, Cisco CCENT, and Cisco CCNA); Computer Service Technology (CompTIA A+); Desktop Publishing (Adobe ACA—InDesign); Web Page Design (Adobe ACA—Dreamweaver); Animated Computer Production (Adobe ACA—Flash); and Digital Imaging (Adobe ACA—PhotoShop).

Supporting Family and Consumer Sciences Programs

A comprehensive brochure outlining the FACS program offerings has been developed and disseminated nationwide. The brochure contains course and program descriptions; career clusters; course offerings; course codes; certification title/agency; extended learning opportunities; dual credit information; definitions; important Web sites; labor market information; cocurricular activities; professional organizations; student organization information; and career options for high school, postsecondary, and four-year or post-graduate education.

Supporting the Improvement or Development of New CATE Courses and Initiatives

The Mechatronics Integrated Technologies (Mechatronics) program has grown from fifteen to twenty programs in one year. Many business partnerships have been formed as a result of the implementation of the EEDA. Dual credit opportunities with the state's technical colleges have increased. Many of the Mechatronics programs have dual credit in place and the rest are seeking agreements with colleges. In 2007–08, the OCTE awarded three Mechatronics grants that totaled \$75,000. With contracts for four new nuclear power plants in South Carolina, industry is sounding the alarm for Mechatronics technicians, industrial maintenance technicians, machinists, and welders.

The new PLTW Biomedical Sciences™ program has launched in twelve South Carolina schools. Biomedical science is a broad field that encompasses many different medical and healthcare disciplines. These include biochemistry, biochemical engineering, dentistry, forensics, immunology, microbiology, pharmacology, physiology, radiological sciences, and more. The program will give students the educational foundation to enter any of these fields. Three courses are currently in place: Principles of Biomedical Sciences, Human Body Systems, and Medical Intervention.

The OCTE devoted significant effort during 2007–08 to creating and improving courses in the areas of business, marketing, finance, and technology. Courses for which standards were developed or revised include Merchandising and Sports and Entertainment Management in the Marketing, Sales, and Service cluster and Business Finance, Securities and Investments, Banking Services, Insurance, and Personal Finance in the Finance cluster. Most of these courses are scheduled for implementation in 2009–10.

In March 2008, the OCTE director met with a group linked to the University of South Carolina's College of Engineering to review potential new cutting-edge technical curriculum in the biofuels, hydrogen fuel, nanotechnology, bioengineering, and biomedical areas. The research group will be developing secondary courses and curricula that will link to postsecondary two-year and four-year colleges. The curricula will be academically focused and integrated across math, science, engineering, and technology.

Providing Activities to Support Entrepreneurship Education and Training

The OCTE partnered with YES Carolina, one-stop centers, the South Carolina Chamber of Commerce, and local schools to support the promotion and enhancement of entrepreneurship education during 2007–08. A staff member recommended workshops and seminars concerning entrepreneurship for teachers to attend and worked with a representative from Telamon Corporation and SCETV to promote and coordinate Entrepreneurship Week in South Carolina. These partnerships and activities support the growing entrepreneurial opportunities for students.

Improving the Recruitment and Retention of Instructional and Guidance Staff and Improving the Transition to Teaching from Business/Industry

South Carolina's CATE teachers enter the profession through a number of avenues. Teachers in areas such as business education, agriculture, FACS, and industrial technology typically become certified to teach by completing an approved teacher education program at an accredited college or university. As an alternative, it is possible under certain circumstances for individuals with an appropriate bachelor's or master's degree to gain certification in these areas through the state's Program for Alternative Certification of Educators (PACE). During the 2007–08 school year, a total of one hundred five new CATE

teachers entered the teaching profession through the state's PACE program. Ninety-three of these teachers became certified in business education, while the remaining twelve were certified in FACS education.

In the areas of certification for which no approved teacher education programs exist, individuals may enter the profession through the state's CATE work-based certification program. Some of the areas covered under the CATE work-based certification program are carpentry, cosmetology, welding, automotive technology, health science technology, electronics, and culinary arts. During the 2007–08 school year, a total of eighty new CATE teachers entered the teaching profession through the work-based certification program.

Since teachers certified through CATE work-based certification have not completed an approved teacher-education program, these new teachers are required to complete a state-managed teacher-training program designed especially for their needs. The DIRECT (Developing Instructional Readiness for Educators of Career and Technology) program provides both classroom and hands-on instruction in methods of teaching, classroom and laboratory management, curriculum, and assessment. In July 2007, fifty new teachers certified through CATE work-based certification completed an intense five-day training session that dealt with methods of teaching and strategies for successful transition to the teaching profession. A remaining thirty new teachers certified through CATE work-based certification were hired after the July training and attended a make-up session of that training held on five Saturdays during the fall of 2007. All eighty of these new teachers completed five days of training in classroom and laboratory management during the spring of 2008. National presenters, master teachers, and SCDE personnel provided the instruction.

II. Progress in Developing and Implementing Technical Skill Assessments

A. Technical Skill Assessments at the Secondary Level

During the transition year, the OCTE conducted numerous meetings and research activities to identify technical skill assessments that would be available and appropriate for use in reporting performance for core indicator 2S1 (technical skill attainment) under Perkins IV. At the recommendation of the OCTE's program staff in the various cluster areas, twenty-two assessments were approved for use in accountability reporting for 2008–09. The following assessments were identified because (1) they were deemed appropriate measures of technical skill attainment for secondary concentrators who complete CATE programs and (2) the OCTE was assured that results would be made available for timely data collection: eight PLTW assessments; seven National Center for Construction Education and Research (NCCER) Core assessments; four NATEF end-of-program assessments; one National Consortium on Health Science Technology Education assessment; one American Hotel and Lodging Association assessment; and one National Restaurant Association Educational Foundation assessment. Fifty-nine additional assessments have been identified for possible use in 2009–10: fifty-three Center for Agricultural Research and Training, Inc. (CAERT) assessments; three American Association of Family and Consumer Sciences (AAFCS) assessments; two NCCER Core assessments; and one National Institute for Metalworking Skills (NIMS) assessment.

Grant funds were made available to LEAs to fund assessments in some program areas during the 2008–09 school year. South Carolina continues to receive direction through the Next Steps Working Group's monthly conference calls and is participating in the newly formed technical skills subgroup, which is tackling the subject of students completing multiple assessments for this measure. The OCTE will continue to work through various

issues created by the use of technical skill assessments for core indicator 2S1. For example, as indicated in the State Plan, as the number of students who take technical skill assessments increases and grade-point average is used for fewer students, the OCTE projects that South Carolina's achievement level on this measure will actually decrease.

Secondary Program Areas with Technical Skill Assessments

For 2008–09, the OCTE has approved the use of technical skill assessments for the following secondary CATE programs: Air Conditioning, Automotive Technology, Building Construction Cluster, Cabinetmaking, Carpentry, Culinary Arts, Electricity, Health Science, Hospitality Management and Operations, Masonry, PLTW, and Plumbing. For 2009–10, the following programs will be added to the list of CATE programs with approved assessments: Agricultural Structures and Technology; Agriculture, Food, and Natural Resources; Early Childhood Education; Environmental and Natural Resources Management; FACS-Consumer Services; FACS-Family and Community Services; Horticulture; Machine Technology; Mechatronics; Plant and Animal Systems; and Welding.

Estimated Percentage of Students Who Would Be Reported in the Secondary Calculation for Concentrators Who Took Assessments

The OCTE estimates that 8 percent of the concentrators who complete CATE programs in 2008–09 will take approved technical skill assessments. The estimated figures for 2009–10 and 2010–11 are 10 percent and 25 percent, respectively. One area of concern is whether or not the data generated by the test providers will, indeed, be provided in a usable manner for Perkins accountability reporting. The OCTE has already begun to receive feedback from program staff and LEAs that the assessment data for the CATE programs identified may be not be as timely or extensive as planned for 2008–09.

Plan and Timeframe for Increasing Coverage of Programs and Students with Technical Skill Assessments Reported for Core Indicator 2S1

The OCTE will add appropriate technical skill assessments each year as these become available and identified for use as a measure for core indicator 2S1. As indicated above, assessments for eleven additional programs have been approved for 2009–10, and the student participation levels are expected to increase to 25 percent by 2010–11. Some additional state and national certifications, credentials, and assessments are available now, but the OCTE either cannot obtain results from the certifying agencies or cannot obtain timely results. Also, some assessments needed for certification cannot be taken until the students turn eighteen, which might occur after they have graduated from high school.

Funding remains a critical issue that may inhibit the OCTE's ability to increase coverage of programs and students with technical skills assessments. Additional state funding has been requested and denied for the past three years, and additional federal funding has not been provided to address this costly mandate. Neither the SCDE nor the OCTE has the staff or resources to develop technical skill assessments in-house, and, to date, South Carolina has not formally joined other states to develop assessments. South Carolina will participate in a national test-item-bank project and/or will join other states to develop or secure assessments for content and program areas for which no assessments are currently available or appropriate.

B. Technical Skill Assessments at the Postsecondary Level

Postsecondary Program Areas with Technical Skill Assessments

There are currently twenty-eight industry-validated assessments available that are applicable to postsecondary degree, diploma, and certificate programs offered at the sixteen technical colleges in South Carolina. The majority of the existing assessments are used as a prerequisite for entry into a technical profession, most of which fall under the health science cluster (n=23). The second- and third- highest cluster areas that currently have technical skill assessments are industrial (n=3) and business (n=2), respectively.

Estimated Percentage of Students Who Would Be Reported in the Postsecondary Calculation for Concentrators Who Took Assessments

Postsecondary data for the Perkins IV core indicators is not required for the 2007–08 reporting period. The SCTCS is preparing to report the assessment results for the Associate Degree Nursing (ADN) program on the National Council Licensure Exam (NCLEX) for indicator 1P1 (technical skill assessment) in December 2009. Based on preliminary projections, the data reveal that of the ADN concentrators enrolled at the sixteen technical colleges, nearly 25 percent took the NCLEX assessment with a reported 90.59 percent passage rate. In 2010, the colleges will include the passage rate for the Practical Nursing (PN) program on the NCLEX assessments. Also, the SCTCS will work diligently to report further assessments in programs such as respiratory therapy, medical laboratory technician, and radiography.

Plan and Timeframe for Increasing Coverage of Programs and Students with Technical Skill Assessments Reported for Core Indicator 1P1

While these third-party assessments are available, the licensing or credentialing agencies do not provide the colleges with the disaggregated data that are required for Perkins reporting. As a result, the SCTCS must rely on the colleges to provide all disaggregated data. The SCTCS will make a concerted effort to establish formal agreements with third-party agencies to gain access to the disaggregated data in the future. At this time, the SCTCS is working with the sixteen technical colleges to identify local initiatives to assess student learning outcomes beyond faculty-developed tests. Additionally, the SCTCS is surveying the colleges to determine the feasibility of purchasing statewide assessments.

III. Implementation of State Program Improvement Plans

A. Secondary Core Indicators

Secondary Performance Data

Performance on three of the secondary core indicators was assessed for eighty-five school districts. South Carolina exceeded the state performance goal for each secondary indicator. The chart below presents the measurement approaches used for the secondary core indicators 1S1, 1S2, and 4S1 under Perkins IV and the comparison of the actual performance results with the goals established for 2007–08.

Perkins Indicator	Measurement Definition	2008 Goal	2008 Actual
1S1 Academic Attainment— Reading/ Language Arts	Numerator = total number of 12 th grade concentrators who scored proficient or advanced on the ELA HSAP administered 2 years prior to the reporting year as required for NCLB Denominator = total number of 12 th grade concentrators who took the ELA HSAP administered 2 years prior to the reporting year as required for NCLB	52.0%	56.42%
1S2 Academic Attainment— Math	Numerator = total number of 12 th grade concentrators who scored proficient or advanced on the Math HSAP administered 2 years prior to the reporting year as required for NCLB Denominator = total number of 12 th grade concentrators who took the Math HSAP administered 2 years prior to the reporting year as required for NCLB	50.0%	57.02%
4S1 Student Graduation Rates	Numerator = total number of CATE concentrators who, in the reporting year, were included as graduated in the State's computation of its graduation rate as defined in SC's consolidated Accountability Plan Denominator = total number of CATE concentrators who, in the reporting year, were included in the State's computation of its graduation rate as defined in SC's consolidated Accountability Plan	70.9%	95.22%

State Program Improvement Plan Process

The OCTE will develop a state program improvement plan if the state fails to meet at least 90 percent on an agreed-upon state adjusted level of performance for any of the secondary core indicators of performance included in the State Plan. The OCTE's program improvement plan process for the LEAs is based on a three-tiered approach for state technical assistance. Each LEA that does not meet performance goals will be assigned to level 1, 2, or 3, which will determine whether a local program improvement plan is required, the degree and type of technical assistance provided by the OCTE, and whether or not the LEA may negotiate local levels of performance under Perkins IV. All LEAs will establish annual performance goals that ensure continual progress toward improving CATE student performance. LEAs that meet or exceed the state adjusted level of performance will be required to accept the state performance goal the following year. LEAs that negotiate a local level of performance must justify the proposed level on the basis of the program improvement efforts outlined in a local program improvement plan.

State Program Improvement Plan Components

South Carolina met all of the secondary performance goals established for 2007–08 and is not required to develop a state program improvement plan for the current year.

B. Postsecondary Core Indicators

This section is not applicable for South Carolina for 2007–08.

IV. Implementation of Local Program Improvement Plans

A. Secondary Eligible Recipients

Eligible Recipients That Failed to Meet Required Performance Levels

Forty-two of the eighty-five school districts (49.4 percent) did not meet the state adjusted level of performance for core indicator 1S1 (academic attainment, reading/language arts). Thirty-one of these districts failed to meet at least 90 percent of the state adjusted level of performance and will be required to implement a local program improvement plan during 2008–09. Thirty-six of the eighty-five school districts (42.4 percent) did not meet the state adjusted level of performance for core indicator 1S2 (academic attainment, mathematics). Of these thirty-six districts, twenty-eight failed to meet at least 90 percent of the state adjusted level of performance and will be required to implement a local program improvement plan during 2008–09. All eighty-five school districts met the established performance goal for core indicator 4S1 (student graduation rates).

Performance Trends and Disparities/Gaps in Performance by Designated Groups

Fifteen disaggregated categories of students were reported for core indicators 1S1, 1S2, and 4S1. The OCTE examined the data for 1S1 and 1S2 for school districts that (1) failed to meet at least 90 percent of the agreed-upon local adjusted level of performance and (2) reported at least ten students for the total denominator. The data were analyzed to determine any trends regarding the performance of specific categories of students in the lower performing districts. Of twenty-eight districts selected for review for indicator 1S1, more than half did not meet the “90-percent level” for males, students whose race/ethnicity is Black (not Hispanic), and economically disadvantaged students. Similar trends were noted for indicator 1S2, with more than half of the twenty-five districts analyzed failing to meet the “90-percent level” for males, females, students whose race/ethnicity is Black (not Hispanic), and economically disadvantaged students.

For the twenty-eight districts included in the analysis for indicator 1S1, other student groups that failed to meet the “90-percent level” of performance were: females (fourteen districts), students whose race/ethnicity is White (eight districts), individuals with disabilities (six districts), single parents (one district), and nontraditional enrollees (one district). Of the twenty-five districts included in the analysis for indicator 1S2, the other student groups that failed to meet the “90-percent level” of performance were: students whose race/ethnicity is White (three districts), individuals with disabilities (six districts), single parents (two districts), and nontraditional enrollees (two districts). No significant trends were noted for these other student groups.

Thirty-seven districts failed to meet at least 90 percent of the agreed-upon local adjusted level of performance for indicator 1S1 and/or 1S2 (twenty-two districts did not meet both indicators 1S1 and 1S2, six districts failed to meet indicator 1S1 only, and nine districts failed to meet indicator 1S2 only). These districts will be required to develop and implement a local program improvement plan. The local improvement plan will address significant performance gaps between any student category and the performance of all students served by the LEA and will be developed and implemented in consultation with the OCTE and other appropriate agencies, individuals, and organizations. The local improvement plan will be developed and implemented during the first program year following the program year when the LEA failed to meet any of the local adjusted performance levels for any core indicator. The deadline for submission of the local program improvement plans to the OCTE is February 27, 2009.

B. Postsecondary Eligible Recipients

This section is not applicable for South Carolina for 2007–08.

V. Tech Prep Grant Award Information

This section is not applicable for South Carolina for 2007–08. All Title II funds were consolidated into Title I under Perkins IV.