

South Carolina Five-Year Plan

July 1, 2008–June 30, 2013

for the

Carl D. Perkins Career and Technical Education Act of 2006

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FOREWARD

South Carolina Vision for Career and Technical Education Dr. Bob Couch, State Director

The mission of the Office of Career and Technology Education is to provide leadership and services to districts and schools supporting grade-level, standards-based curricula through the integration of academic and career and technical instruction for students in grades seven through twelve while focusing on the Office's 2020 Vision for Career and Technology Education in South Carolina.

Ninety-eight years ago in Ormond Beach, Florida, a young man named Glenn Curtiss set a speed record of 136 miles per hour on a motorcycle that he built from scratch. The speed record that he set that day was not broken for another four years, by which time Glenn had started his own Curtiss Aeroplane Company, the first airplane manufacturing company in the United States.

Curtiss became one of the great pioneers of aeronautics, and his company designed and built many now-famous aircraft including the first flying boat for the U.S. Navy and the Curtiss P-40. The P-40 was flown by the American volunteer group better known to us as the Flying Tigers. That little moment of history is important to me as State Director of Career and Technology Education because it reminds me of the pioneers of our new world. People like Glenn Curtiss were the inventors of what we now call the globalized world (*Wikipedia.org*).

The technologies developed in the decades before 1914—mass production, the radio, the automobile, and the airplane—made our world “flat.” In Glenn’s day it was possible to learn all that was known about building a motorcycle from magazines and popular books.

In some ways, the pioneers had it easier than we do. Technology today is more difficult and complex and requires a deeper pool of knowledge, skills, and habits in order to take advantage of its possibilities: to invent the next great search engine, develop a renewable source of energy, unravel the mysteries of genomics, and understand the complexities of a global world.

Many authors are addressing the global perspective in their works. *Workforce 2020* (Hudson Institute), *The 2010 Meltdown* (Gordon) and *The World Is Flat: A Brief History of the Twenty-first Century* (Friedman) are among the publications that are helping paint the landscape of the 21st Century economy. Their research and projections clearly show the urgency of addressing workforce demands. From them we know that today’s workforce must be well educated and that the potential for long-range success for most will lie in their ability and willingness to be re-educated several times, to work in teams, to think critically and creatively, to collect and use data, and to embrace change. Indeed, a future worker must think and live globally and prepare to work in a career without walls and without many of the traditional roles that have previously defined it.

In *The World Is Flat: A Brief History of the Twenty-first Century*, globalization is presented from three distinct points of view: the view of the country, view of the company, and view of the individual. In a chapter titled “The Silent Crisis,” readers are challenged to consider the gradual loss of America’s dominance in the fields of mathematics and science and the resulting inability to be innovative. Embracing change in terms of preparing a workforce for new and different careers requires both planning and action.

The preparation of the 21st Century workforce raises a number of challenges but also provides many opportunities for future graduates.

- The complexity of 21st Century American society challenges career and technical educators to contemplate issues that are impacted by and serve as catalysts for a global economy—an economy that has, based on the desire of countries, companies, and individuals to participate—undergone systemic and dramatic change.
- America's aging population, healthcare costs, growth in the multinational fabric of the country, development and use of technology, growth in entrepreneurial endeavors, generational differences in the workforce, and many other issues are driving both education and economic change.
- Educators must revisit issues related to content, methodology, systems, and outcomes critical to educating a workforce that is itself changing and diverse, yet is a workforce that must have a global perspective.
- The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) provides greater opportunities for partnership building with postsecondary partners and the business community, which will increase educational and career choices for all students.

Career and technical education will play a pivotal role in providing the next generation of knowledge workers. We who are responsible to prepare this future workforce will surely be judged very harshly by history if we fail to provide the knowledge and skills for students to cope with the challenges of the 21st Century.

It would be easy to become discouraged when we look at the mountain that must be conquered. We have all heard about the numbers of young scientists and engineers being educated each year in China and in India. We also know about the comparisons between outcomes of schooling in mathematics and in science between students in the United States and global competitors.

Perkins IV provides us the opportunity to provide a holistic education of academic and technical skills for career and technical students to prepare them to be engaged in and be successful in the new world of work.

South Carolina is facing an education and economic landscape that makes globally competitive businesses, countries, and individuals a priority. South Carolina's response to these challenges addresses global education and workforce issues by assessing individual strengths, individual career goals, and interests and by preparing all students for successful postsecondary education and careers.

Becoming globally responsive requires us to focus with a renewed clarity on our greatest resource, our students. Their creativity, interests, goals, and aspirations will be best addressed as we provide them with a new and different focus on their choices, their educational opportunities, their career options, and an understanding of a multi-dimensional workplace and economy. It is true more today than perhaps ever before...our children are our future and we have much work ahead of us as we prepare them to reach their own new heights of success.

Perkins IV will serve as a catalyst to enable the vision of career and technical education in South Carolina to become a reality. A vision that every graduate of the public schools of our state is equipped with the academic and technical skills to make a positive impact on the economy of South Carolina and be prepared to engage the global workforce. If our graduates are prepared for work, they will become productive citizens and enjoy lives with purpose and meaning. As career and technical educators, we can be proud of their success.

PART A—STATE PLAN NARRATIVE

I. PLANNING, COORDINATION, AND COLLABORATION

South Carolina is submitting a five-year state plan under the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). The South Carolina Department of Education (SCDE) developed the South Carolina Five-Year Plan—July 1, 2008–June 30, 2013, (State Plan) for Perkins IV in collaboration with the South Carolina Technical College System (SCTCS). The five-year plan builds on and extends the South Carolina Transition Plan, July 1, 2007–June 30, 2008, approved by the U.S. Department of Education in July 2007.

To afford all segments of the public and interested organizations and groups an opportunity to present their views and make recommendations regarding the development of the State Plan, the SCDE conducted public hearings in each region of the state. Appropriate and sufficient notice of the hearings was provided on the SCDE Web site and issued as a news release through the SCDE's Office of Public Information to newspapers, television stations, and weekly papers across the state. The hearings were conducted November 20, November 26, and November 27, 2007. Copies of the public notice and news release are included as Attachment A. No written comments were received by the SCDE in response to the public hearings.

The SCDE and the SCTCS jointly convened the Perkins Five-Year State Plan Advisory Committee to provide input into the development of the State Plan and to make recommendations for the delivery of career and technical education in the state. The committee members were selected to provide input from the perspectives of secondary and postsecondary education instructors and administrators; career guidance and academic counselors; eligible recipients; charter school authorizers; parents; students; the state workforce investment board; interested community members; representatives of special populations, business and industry, and labor organizations; and the governor's office. A complete membership list is included as Attachment B.

The SCDE and the SCTCS provided information for the advisory committee through presentations, print materials, and electronic correspondence. Meetings were conducted October 31 and November 13, 2007, to provide all committee members with an opportunity to review an outline and draft of the State Plan narrative and discuss their recommendations or concerns. Committee members were also encouraged to provide input electronically as the State Plan was completed. Input provided by committee members was carefully considered and used in developing the State Plan.

The secondary-postsecondary allocation for the transition year (July 1, 2007–June 30, 2008) was a 70 percent allocation for secondary and a 30 percent allocation for postsecondary. The SCDE, which is responsible for career and technical programs at the secondary level, and the SCTCS, which is responsible for career and technical programs at the postsecondary level, have agreed to continue this proportionate share and use of the Perkins IV funds for the period covered under this State Plan. The 70-30 division was determined on the basis of the relative enrollment in career and technical programs and the needs of the students.

II. PROGRAM ADMINISTRATION

Eligible Agency Approval and SCDE Authorization for the State Plan

The State Plan includes the components identified in the *Guide for the Submission of State Plans*, OMB Control Number 1830-0029, issued March 12, 2007, by the U.S. Department of Education's Office of Vocational and Adult Education (OVAE). The State Plan submitted to the eligible agency, the State Board of Education (State Board), for approval includes Part A—State Plan Narrative, Part B—Budget Forms, and Part C—Accountability Forms. The eligible agency must approve the State Plan prior to submission to the OVAE; therefore, the State Board authorizes the SCDE's Office of Career and Technology Education (OCTE) to negotiate with the OVAE and to modify components of the State Plan as needed to obtain initial approval or to update the plan as required to receive the annual allotment of the federal funds under Perkins IV.

Activities and Programs Designed to Meet Performance Goals

South Carolina is in an excellent position to implement the provisions of Perkins IV. Secondary and postsecondary educational agencies, along with other workforce development partners, laid the foundation for many components of the new law during the implementation of the previous Perkins legislation. In 2005, the South Carolina General Assembly passed the Education and Economic Development Act (EEDA). The EEDA mandates the development of a curriculum organized around a career cluster system that provides students with both strong academics and real-world problem solving skills and addresses key elements that impact how the state's high school curricula are structured and connected to postsecondary study. The sixteen career clusters in South Carolina are based upon the national career clusters. As a result of the EEDA, all public school districts in South Carolina were required to organize their curricula around a minimum of three career clusters by July 1, 2007.

The EEDA is predicated on the belief that a more rigorous and relevant curriculum will positively influence student performance. By the 2009–10 school year, every high school in South Carolina will be required to implement the Southern Regional Education Board's (SREB) *High Schools That Work (HSTW)* or another approved model of whole-school reform. The legislation also requires each high school to implement evidence-based model programs designed to ensure that students at risk of dropping out persist to the point of graduation. Embedded in the legislation are the following components:

- High school students will be provided guidance and curricula that will enable them to successfully complete their individual graduation plans (IGPs), preparing them for a seamless transition to relevant employment, further training, or postsecondary education.
- Students will develop IGPs that align a student's career goals with his or her course of study; include core academic subjects to ensure that the students will meet the requirements for graduation; include experience-based, career-oriented learning experiences (e.g., internships, apprenticeships, mentoring, co-op education, and service learning); and allow a student to change his or her course of study, but are sufficiently structured to meet graduation requirements and admission requirements for postsecondary education.

- A committee of the Education and Economic Development Coordinating Council will make recommendations to the South Carolina Commission on Higher Education (CHE) regarding course work that is acceptable statewide for dual enrollment. Dual enrollment college courses offered to high school students by two-year and four-year colleges and universities must be equivalent in content and rigor to the equivalent college courses offered to college students and taught by appropriately credentialed faculty.

These EEDA components complement the stated purposes and priorities of Perkins IV to ensure that students achieve challenging academic and technical standards and prepare for high-skill, high-wage, or high-demand occupations in current and emerging professions. South Carolina will use the Perkins funds to enhance the statewide implementation of the EEDA to increase student achievement through rigorous and relevant career and technical education programs at both the secondary and postsecondary levels.

Career and Technology Education Programs of Study

With the implementation of the EEDA, the OCTE identified career and technology education (CATE) programs of study and developed templates highlighting seamless pathways from secondary to postsecondary education that could be offered as options to students when planning for and developing their IGPs. These program-of-study templates represent thirteen career clusters and courses aligned with challenging academic standards. The templates for these sample career pathways are available on the Internet at <http://www.teachscpathways.com> as a component of a comprehensive Web site designed to assist school districts in advising secondary students to enroll in coherent and rigorous course work needed to enter and succeed in postsecondary education and future employment.

In the Perkins local plan applications received by the OCTE for the transition year, 78 percent of the local educational agencies (LEAs) indicated that they would offer the secondary components of a CATE program of study during the 2007–08 school year, most of these in the areas of health science technology, engineering technology, and automotive technology. The LEAs identified the required courses at the secondary and postsecondary levels and the industry-recognized credentials/certificates or associate or baccalaureate degrees available to students, and described the collaboration with postsecondary institutions regarding dual credit, dual enrollment, and articulation opportunities available to secondary students. The remaining LEAs indicated they would collaborate with postsecondary representatives during the transition year to develop a program of study to be implemented during 2008–09, and most of these LEAs identified the same three program areas.

The OCTE and the SCTCS are working collaboratively to develop program-of-study templates at the state level to provide students with options for seamlessly transitioning between secondary and postsecondary education. Representatives from the SCTCS and the OCTE attended a conference in May 2007 to review model program-of-study frameworks. These representatives then provided feedback to a small work group that is tasked with implementing programs of study in South Carolina. The work group consists of SCTCS staff, OCTE staff, secondary content area program coordinators, and postsecondary eligible recipients. The work group determined the content areas that would serve as the initial areas of focus on the basis of the information provided by LEAs in the local plan applications and information the

SCTCS staff obtained from the colleges about existing partnerships with school districts or secondary schools.

Using the National Center for Education Statistics (NECS) Classification of Instructional Program (CIP) codes, the sixteen secondary clusters were aligned with the eight postsecondary clusters to determine potential paths of study for CATE students. A comparison of the eligible recipient responses and the aligned programs led the work group to choose health science, engineering technology, and industrial technology as the initial areas of focus. In each of these content areas, there are statewide initiatives in place that will foster continued collaboration between secondary and postsecondary institutions during the implementation of the CATE programs of study. These are also areas where South Carolina has the most experience in establishing programs that lead to industry-recognized certificates, diplomas, or associate degrees.

For each of the three targeted areas, the program-of-study templates outline a recommended path of study for secondary students interested in pursuing a certificate, diploma, or degree through the SCTCS. They include the progression of course work from the ninth through twelfth grade, specifically the secondary academic requirements and the recommended courses in the specified CATE program sequence. Each of the applicable postsecondary degree, diploma, and certificate programs is listed so that students understand that there is a wide array of options within one content area. The templates also include South Carolina wage and salary information for related program occupations. Attachment C illustrates the selected programs of study and provides a sample template.

Members of the work group developed master templates for these three areas using national and state models. These templates are under review by content area experts and, once finalized, will be presented to local eligible recipients as a guide for implementation. The state will use the programs of study to strengthen the existing partnerships between secondary and postsecondary institutions. Secondary students across the state are currently enrolled in nearly six hundred dual enrollment courses offered by the technical colleges. Students receive academic credit for these courses at the technical college level and are provided with rigorous and challenging course work that will prepare them for enrollment in a postsecondary degree program.

Eligible recipients will be required to implement at least one CATE program of study by 2008–09, as outlined in the Perkins legislation. The SCTCS and the SCDE will provide technical assistance to the colleges and secondary schools to assist with development strategies at the local level. Using the master templates as a guide, eligible recipients may customize their programs of study to meet the needs of their geographic areas. The LEAs and colleges will be encouraged to allocate Perkins funds to support the development of seamless integration between course work in secondary and postsecondary CATE programs and to inform students and their parents about available programs of study through registration materials, career guidance activities, and the annual IGP conferences.

New programs of study throughout the state will prompt the development of articulation agreements between secondary and postsecondary institutions. Current SCTCS policies and procedures require annual review of any formal articulation agreements. The agreements must outline how secondary students will obtain advanced academic standing (course credit) in a technical college program. Participating institutions must also detail the joint involvement of secondary and postsecondary personnel in the planning and development of articulation agreements.

The SCTCS and the OCTE will provide technical assistance to the colleges and school districts in developing and implementing local articulation agreements.

Secondary and Postsecondary CATE Programs to be Assisted

The OCTE will continue to improve and expand the CATE courses and programs offered in grades seven through twelve. The secondary CATE courses and programs that are eligible to receive assistance with the Perkins funds are listed and updated annually in the CATE student reporting procedures manual posted on the SCDE Web site. State-approved CATE courses and programs are organized by career cluster and are assigned course codes and CIP codes to ensure accountability for the uses of the Perkins funds. Attachment D provides a listing of CATE secondary courses and programs approved by the OCTE for the transition year, 2007–08.

Perkins funds are used to support a wide range of degree, diploma, and certificate programs at the postsecondary level. CATE students may choose to enroll in one of more than 1,000 programs (72 degrees, 25 diplomas, and 1,021 certificates) that are grouped into the following clusters: agriculture, business, computer technology, engineering technology, health science, industrial technology, and public service. The SCTCS, college administrators, faculty, and staff will continue to use Perkins funds to support the development of new courses and the enhancement of current program offerings. Attachment E provides a listing of all current degree and diploma programs that are eligible to receive Perkins funding. While degree and diploma programs are consistent across the SCTCS, certificate program titles vary as they are designed to meet the labor market needs of each college's service area.

Developing, Improving, and Expanding Access to Technology in CATE Programs

The OCTE will continue to provide leadership for the development, improvement, and expansion of technology in CATE programs, using both Perkins funds and state funding targeted for these initiatives. The state currently provides an annual appropriation of \$8.7 million for CATE equipment. CATE programs that receive federal and state funds must be supported by advisory committees with representatives from business and industry to ensure program relevancy to the technological workplace. In addition, the OCTE strongly encourages eligible recipients to seek and obtain national or industry certification for CATE programs, which often requires expanding and improving access to appropriate technology in these programs.

In the Business, Management, and Administration cluster, students can obtain Microsoft Office Specialist (MOS) certification. In the Information Technology cluster area, students can become certified through national technology industries and associations such as Certiport, Inc. (Internet and Computing Core Certification–IC³), the Oracle Corporation (OCP), Cisco Systems (CCNA), and CompTIA (Network+). Innovative ideas for future CATE courses based on student interest include computer animation, gaming and development, computer and cyber security, computer forensics, and digital and interactive media.

South Carolina ranks fifth in the nation for its number 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. The Mechatronics Integrated Technologies program addresses high-technology systems

that include computer networking, advanced manufacturing, mechanical systems, electronics, automation and robotics. The Mechatronics program will prepare secondary students for the rigor needed to enter postsecondary programs in engineering or engineering technology.

In January 2007, the OCTE launched Keyboarding, Computer Applications, and Web Page Design courses in the Business, Management, and Administration cluster and a Pharmacy Tech course in the Health Science cluster through the newly developed South Carolina Virtual School. Seventy-three students were enrolled in these initial virtual CATE offerings. Beginning in January 2008, the OCTE will add online courses in Anatomy and Physiology, Medical Terminology, Family Life Education 1 and 2, Child Development 1 and 2, Financial Fitness 1 and 2, Parenting Education 1 and 2, Human Development 1 and 2, Virtual Mechatronics, Oracle Database with SQL and PL/SQL, Global Markets, Information Technology Foundations (with IC³ certification), and Integrated Business Applications (with MOS certification). Offering electronic courses provides opportunities for students to take CATE courses that may not otherwise be available to them due to scheduling conflicts.

There are several initiatives in place to support the development and improvement of, and expanded access to, technology for students enrolled in postsecondary CATE programs. Distance education continues to be an area of focus as online or hybrid courses offer greater flexibility and convenience for students. The SCTCS has purchased statewide licenses for Elluminate *Live!*, a distance learning tool that allows for real-time interactivity in online classrooms. Features of Elluminate *Live!* include instant messaging, two-way audio and video, interactive whiteboards, and small group capabilities to foster collaborative learning. Additionally, the SCTCS utilizes Blackboard, WebCT, and TechNet, a two-way video conferencing system. Faculty and staff are exploring the implementation of a learning object repository that would allow for a centralized online database of faculty-developed course materials and training modules.

The SCTCS is also investigating ways to increase participation in the TechOnline Consortium, a collaborative project that allows students to take online courses at any of the participating technical colleges, regardless of the students' location. Distance education is vital to the success of postsecondary career and technical education as it allows students to pursue a degree without geographic or situational restrictions. Aside from distance learning, there are many new and evolving technology tools offered at the state level. The SCTCS will continue to review the use of the free streaming video resource made available by the SCDE and the South Carolina Educational Television Network (SCETV). Additionally, SCTCS administrators are working diligently to equip college classrooms with state-of-the-art tools such as SMART technologies and student response systems.

Many of the colleges utilize Perkins funds to maintain up-to-date equipment and technology tools for CATE programs. For example, engineering or architecture students may benefit from multimedia labs that house AutoCAD or other relevant software packages. Automotive students use state-of-the-art diagnostic equipment that reflects the technology found in most repair shops. As technology continues to evolve, the opportunities for innovative learning and technology integration continue to increase. Articulation, collaboration, and cost sharing across the colleges are essential to the success of educational technology initiatives in CATE programs.

Criteria Used to Approve Local Plans under the Perkins Act

A comprehensive, computerized local plan process will be utilized by secondary eligible recipients. Statewide regional meetings will be held annually in the spring to provide information on allocations and to provide instructions on the local plan forms and process. The secondary local plan application instructions, assurances, and forms will be available on the SCDE's Web site. Detailed descriptions of the following required services and activities will be addressed in the local plan applications submitted by each school district and multidistrict career center:

- services and activities provided to support standards-based CATE programs that lead to technical skill attainment;
- activities or services that will be conducted to encourage CATE students to enroll in rigorous and challenging core academic subjects;
- professional development that will promote the integration of academic and technical education;
- activities that will be provided to prepare special populations students for high-skill, high-wage, or high-demand occupations that will lead to self-sufficiency; and
- career guidance and academic counseling services that address linkages to future education and training opportunities for CATE students.

Narrative questions included for all applicants that fail to meet established levels of performance help to integrate the local plan with the state improvement plan and focus the planning process on program improvement. OCTE staff specializing in finance, gender equity, special populations, career guidance, CATE program areas, and evaluation will review the applications using individual checklists of approval criteria to ensure Perkins IV compliance for uses of funds, required plan contents, meeting adjusted levels of performance, or serving special populations. Applications that are not initially approved will be returned to the districts/career centers with comments regarding all areas that require additional attention prior to approval.

Each spring, the SCTCS will send Perkins allocation letters to the colleges to announce funding levels for the fiscal year and to provide a schedule for submission of the local plan application. Each college will use a newly developed electronic tracking system to submit a local plan that details the intended implementation of programs and activities to support career and technical education. Colleges must provide narrative information that defines their goals and priorities for the year. Colleges must also describe career guidance and academic counseling services, professional development activities, evaluation methods, and strategies to address special populations, which include students preparing to enter employment in nontraditional fields.

The local plan will focus on student preparation for high-skill, high-wage, or high-demand occupations in current and emerging fields as appropriate for the geographic area. Colleges will allocate funds for required and permissible activities under Perkins IV that promote the integration of academic and technical skill attainment. The SCTCS staff will use a review checklist to ensure that local plans adhere to the requirements of the Perkins legislation and that activities support efforts to meet or exceed postsecondary performance indicators. The colleges must indicate how each planned activity relates to one or more of the performance indicators, including technical skill attainment and job placement. Approved budgets for each local plan will be submitted to the SCDE.

Preparing CATE Students for a High School Diploma

The South Carolina Education Accountability Act of 1998 (EAA) and the No Child Left Behind Act (NCLB) use student performance on South Carolina's high school exit examination to determine school and district performance ratings annually. Group test results from the High School Assessment Program (HSAP), which assesses selected state curriculum standards in English language arts and mathematics that students have had adequate opportunity to learn by the end of the tenth grade, are used for the EAA report cards and to report adequate yearly progress (AYP) under NCLB. The EAA and NCLB jointly provide strong support for the academic standards required under Perkins IV.

In addition to the exit exam required for graduation, all high school students must earn 24 units of credit in state-approved courses that include 4 units in English language arts, 4 units in mathematics, and 3 units in science. South Carolina's secondary core indicators of academic achievement for Perkins IV are based on CATE student performance on the HSAP administered for AYP reporting, as required by the U.S. Department of Education. Although students generally take the exit exam prior to participating as concentrators in a state-approved CATE program, the English language arts and mathematics courses they take are aligned with the state curriculum standards and assessments used for NCLB.

The Perkins funds will supplement the state's efforts under the EEDA to improve career guidance and academic counseling for secondary CATE students in South Carolina. The IGP required for all high school students, coupled with state funding provided to lower the student-to-guidance staff ratio to three hundred-to-one in all high schools and middle schools, will help to ensure that students, including the special populations students identified in Perkins IV, parents, and school counselors collaborate at least once a year in planning students' academic and CATE courses, thereby supporting high school completion and success for all students. The electronic IGP component of the Palmetto Pathways Web site at <http://www.palmettopathways.org/> will be developed to provide annotated academic and career development progress of students as they transition from middle school to high school, and on to two- and four-year colleges. This accessible "eIGP" will enhance educator and parental involvement in the academic and career planning process, thereby facilitating seamless transitions between educational entities and providing data-driven accountability.

Teachers and career specialists who become nationally certified as career development facilitators (CDFs) will focus on each student as an individual with future employment outcomes related to the sixteen career clusters recognized in the state. As students progress through high school, they will declare a pathway and select a major consisting of four courses in one area of interest. Since all CATE programs require a minimum of 4 units of credit to complete, these programs will provide a viable major for many high school students, including students who meet the criteria of special populations. Career development textbooks will be approved for career courses in high school by a materials review team. These texts will be provided by the SCDE for use with students to improve career decision-making.

Preparing Secondary CATE Students for High-Skill, High-Wage, or High-Demand Occupations

The high-skill, high-wage jobs in today's workplace require advanced technical skills and the ability to understand how technology is utilized in a rapidly changing world.

The OCTE provides leadership and support to assist local administrators in assessing program needs, allocating state and federal resources, and developing educational and workforce connections for students. Through initiatives addressing curriculum, structural change, and technology, the OCTE promotes the development of courses and programs at the secondary level that provide students with credentials and preparation to be successful in postsecondary education and the workplace. The goal is to create an integrated curriculum that includes state and national standards for mastery of academic, technological, and employability skills. The following are strategies that South Carolina uses to identify and support CATE programs leading to high-skill, high-wage jobs:

- organizing instruction and student experiences around the sixteen career clusters,
- linking career majors and clusters to industry-certified programs,
- identifying exemplary models that effectively use technology and provide optimum flexibility for students,
- securing active business partners to provide a link to emerging and advanced technology, and
- creating advanced placement credit for transfer to postsecondary institutions.

The OCTE has made considerable progress in the last several years in assisting high schools and career centers in their efforts to implement PLTW, a rigorous pre-engineering program that combines a sequence of technical courses with college preparatory courses in mathematics and science. New courses in aerospace engineering, biotechnical engineering, and civil and architectural engineering will help prepare students to address the rigor needed for entry into postsecondary education and the skills needed to compete for high-wage careers that require knowledge of new and emerging technologies.

Health science programs have been expanded to include Pharmacy Technology, Sports Medicine, and a dual credit program in Medical Terminology. Secondary students currently enroll in courses such as Computer Programming, PC Repair, Networking, and Web Page Design and Development, which provide them with the academic and technical skills that lead to entry into rigorous technology and telecommunications fields. Advanced technologies are found in numerous aspects of family and consumer sciences (FACS) programs. Interior design and fashion design students learn design skills that explore key aspects of two- and three-dimensional communication techniques and provide training in areas such as computer-assisted drafting (CAD), color, and rendering. FACS graduates are employed in education, business and industry, government service, and public agencies.

Successful implementation of the career clusters will help to ensure that CATE pathways provide education and training relevant to South Carolina's economic development and workforce needs. The OCTE will use Perkins funds to support innovative programs that prepare students for in-demand occupations that pay family-supporting wages. Many of these jobs require additional training beyond high school in the form of postsecondary education, on-the-job-training, apprenticeship experience, and a high depth of knowledge developed from a definite skill path. CATE programs prepare students academically and technically for postsecondary opportunities and entry into high-skill, high-wage, and high-demand occupations.

Accommodations are made for special populations students, such as the development of individualized plans that target and develop specific work-based skills according to students' abilities. Students have opportunities to receive extra help and to participate

in work-based learning opportunities such as job shadowing, cooperative education, entrepreneurship, internship, part-time employment, and mentorships. District-level personnel who coordinate special populations support services need to keep records documenting student access to, progress through, and successful completion of CATE programs. Therefore, the OCTE will facilitate extensive training opportunities for school districts to foster improvement of their techniques in meeting the needs of special population students. LEAs will also be encouraged to coordinate efforts to provide appropriate supplementary services with district personnel who provide special education services, representatives of business and industry, and community agencies that implement workforce development and vocational rehabilitation programs.

Students receive information about CATE opportunities through state and local brochures, career cluster guides, course catalogs, state and district Web sites, CDFs who provide career development activities in the schools, and guidance counselors who conduct the annual IGP conferences. The South Carolina Career Guidance Model has been written to provide educators with a "how to" guide to delivering quality career development activities and lesson plans aligned with the state's academic standards. This document contains resources and methodologies for teaching students and their parents how to approach decisions involving academic and career choices.

Improving or Developing Secondary and Postsecondary CATE Courses

The OCTE will use Perkins funds to develop secondary CATE courses that are aligned with academic achievement standards developed under the EAA and NCLB. Committees consisting of secondary and postsecondary teachers and business/industry representatives are formed to review and revise CATE courses as needed. Trends and issues are examined and considered to ensure that the CATE course content is relevant and current. Textbooks are selected based on the alignment of content with standards. Funds may also be used to provide students with extended learning opportunities and co-curricular activities that help them to develop technical and leadership skills.

Perkins funds are made available to LEAs that implement new and innovative courses such as Oracle Logistics in the cluster area of Marketing, Sales, and Service. The Oracle Logistics course includes such topics as procurement, inventory and warehouse fundamentals, and order management. Utilizing a virtual enterprise, the students will learn how products and materials are planned, purchased, stored, and shipped in businesses today. Perkins funds will also be used to assist LEAs in offering the redesigned globalMARKETS™ course under a partnership between the OCTE and the South Carolina World Trade Center. This online course is designed to help high school students learn about and prepare for an increasingly global future through a wide range of project-based assignments and activities that bring world trade, entrepreneurialism, and global markets to life.

Aerospace engineering is a field that will provide many opportunities in the next ten years and beyond due to the decreasing number of aerospace engineering degrees awarded and the large numbers of aerospace engineers who are expected to retire. A demand for aerospace engineers exists in careers such as automobile design and manufacturing and in the development of alternative energy sources, such as wind power and bio-fuels. South Carolina plans to offer secondary programs in aerospace engineering foundations to prepare students for postsecondary aerospace programs. Aerospace engineering and biotechnical engineering are new industries in South Carolina that seek to recruit a highly skilled and diverse workforce that will include

more females and minorities. These secondary courses will offer new career opportunities for students and provide a seamless pathway into postsecondary programs of study.

Biomedical sciences comprise one of the largest industries in the United States, employing more than fifteen million people working in a broad range of occupations. South Carolina is among several states partnering with PLTW, Inc., in developing a biomedical sciences program that will assist students in mastering the academic knowledge and necessary skills to succeed at the postsecondary education level and in any related career. The goal of the four core courses at the high school level is to provide a rigorous, project- and problem-based curriculum that will engage and prepare students for the postsecondary education and training necessary for success in the wide variety of careers associated with the biomedical sciences including, physician, nurse, veterinarian, scientific or pharmaceutical researcher, therapist, and technician. Six South Carolina high schools are field-testing the first course, Principles of the Biomedical Sciences, during 2007–08, and PLTW will publish the subsequent courses in the sequence (Human Body Systems, Medical Interventions, and Scientific Research) over the next several years.

Manufacturing industries need automation technicians to install and service highly advanced automation equipment including robotics. Robotic technology is advancing rapidly and large numbers of technicians are needed to install and service these machines. Many companies in the United States and in other industrialized countries indicate a severe shortage that will only increase as technology advances. The OCTE is working with the BMW Corporation and the Festo Corporation, a German company, to train high school students in this exciting career path. Several schools have expressed interest in the Mechatronics Integrated Technologies (MIT) program, and some have already added the program. This program of study in the Manufacturing cluster provides a pathway leading to mechanical, industrial, or electrical engineering or a pathway for the technician level. A statewide industry and education taskforce will identify current national standards and design a marketing campaign to educate parents and students. Perkins funds will help to defray the high costs of implementing the MIT programs (approximately \$100,000) in rural areas where funding is limited.

Colleges will indicate their intent to improve or develop new CATE programs and courses in the local plan application. Examples of course improvement strategies might include the purchase of relevant library resources, classroom equipment, the addition of a lab component, or the transition to online/hybrid courses. Each new course must belong to a postsecondary CATE program and must fit within a predefined program model.

The development of new courses or programs will be based on assessment of the college's service area to identify relevant high-skill, high-wage, or high-demand occupations. Colleges must assess the needs of local employers and provide evidence that there will be opportunities for employment. New program proposals are also supported by statistical research and the analysis of national, regional, and local labor market trends. Each new program proposal and course request will be reviewed by the SCTCS staff and other approving entities as appropriate (i.e., the State Board for Technical and Comprehensive Education and the CHE). The proposals and requests are reviewed to ensure nonduplication of course content. Requests are also reviewed for academic rigor and content that is aligned with technical competencies relevant for the geographic area.

Effectively Linking Academic and CATE Courses at the Secondary and Postsecondary Levels to Increase Student Achievement

South Carolina's standards in the areas of math, science, English language arts, and social studies have recently been revised using as a framework *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. For example, the 2007 South Carolina English language arts standards incorporate indicators that lend themselves to using an applied or contextual approach. With the use of the verbs in the Revised Bloom's Taxonomy, the indicators show an increase in authentic student learning, thus providing more opportunities for students to see connections between their academic and CATE courses. Curriculum resources have been developed for high school English teachers that are theme-based, use various types of text to expand on the theme, and support teaching in a way that allows the students to make connections with what they already know and what they will learn outside the academic classroom throughout their lives. Training to assist CATE and academic teachers to effectively integrate instruction will be expanded and become a major focus for professional development offered to LEAs.

When secondary CATE courses are developed or revised, advisory committee members will receive training on implementing the framework of the Revised Bloom's Taxonomy. Training the state's CATE and academic instructors to implement the framework will follow. When CATE standards are developed or revised, the standards will be cross-walked with the revised state academic standards. In addition, the standards development committees consist of equal numbers of educators (secondary and postsecondary) and business representatives, so that business-industry has equal input in the standards development process. The requirement that postsecondary educators participate has led to substantial collaboration between secondary and postsecondary instructors regarding shared or overlapping course and program content.

The Perkins emphasis on programs of study reinforces concerted statewide efforts to strengthen the linkages between secondary and postsecondary CATE programs. Specifically, the programs of study will reinforce the integration of academic and technical content in CATE programs. Each college and school district must provide information in the Perkins local plan application about how they will implement at least one CATE program of study. School districts and colleges may indicate support for a consortium in their local plan applications and allocate a portion of their funds to support consortium agreements between secondary and postsecondary institutions, as outlined in Section 135 of the Perkins Act. Further impetus to align secondary and postsecondary instruction has come as a result of the 24 Carnegie units required for high school graduation in the state. Mechanisms for a seamless transition to postsecondary education are increasing for students through non-duplication of course taking, dual enrollment, credit by examination, and advanced placement course credit.

Reporting On and Evaluating Academic and CATE Integration

The OCTE uses the SREB guidelines for *HSTW and Making Middle Grades Work (MMGW)* to report on and evaluate the integration of coherent and rigorous content aligned with challenging academic standards in CATE programs. During the scheduled *HSTW and MMGW* technical assistance visits (TAVs), the TAV team examines the key practice that relates to the integration of CATE and academic content in all courses. The TAV report is shared with the school's principal and district superintendent, and a copy of the report is filed in the OCTE. The *HSTW* Assessment, which is referenced to

the National Assessment of Educational Progress (NAEP) and administered every other year to sixty randomly selected students at each *HSTW* and *MMGW* site, generates disaggregated and comparative data regarding each site's effectiveness in implementing the ten key practices of *HSTW*, including the integration of coherent and rigorous content aligned with challenging academic standards in CATE programs.

Local school districts must describe their activities related to academic and CATE integration in the local plan application. Each recipient of the Perkins secondary funds will also report the effectiveness of their efforts to integrate academic and CATE instruction annually within the CATE progress report. Districts will be asked in the report to describe any programs or activities implemented during the school year to promote or reinforce the integration of academic and CATE instruction and to identify any obstacles experienced in their local efforts to integrate the secondary curriculum.

All associate, diploma, and certificate programs require an extensive review process to ensure the inclusion of a core academic foundation. The postsecondary local plan application will require colleges to outline integration activities within these programs. Colleges will be required to allocate funds to cross-curricular activities that promote the strengthening of academic skills in CATE programs. Activities might include tutorial assistance, problem-based learning, curriculum revisions, academic workshops, or job-shadowing experiences. The SCTCS requires colleges to submit a detailed assessment on the effectiveness of integration activities and their funding impact as part of the annual report.

Providing Comprehensive Professional Development

The OCTE conducts the Education and Business Summit, an annual statewide professional development conference, to meet the professional development needs of CATE teachers, counselors and administrators. CATE and academic instructors participate in the Summit activities where focus sessions and activities related to academic and CATE integration, contextual methodology training, and the South Carolina curriculum standards are provided. Many other strands are offered at the Summit, including strands for career guidance and counseling, new CATE administrator training and professional development, whole-school reform, serving and addressing the needs of special populations and potential dropouts, and the use of technology in the classroom. Over 2,100 educators attended this event in 2007.

An institute for new and prospective CATE administrators is offered annually. The institute encompasses the required tasks and responsibilities new administrators will need to accomplish in order to successfully administer relevant CATE programs. Topics include techniques to improve instruction for all students, supervision and evaluation of teachers, understanding industry standards, implementing a new program, and understanding state and federal CATE legislation. The institute begins during the annual Education and Business Summit and extends into five full-day sessions during the school year. Each participant spends two days with an assigned mentor who has extensive CATE administrative experience. The participants travel to the school site of the mentor to observe day-to-day operations and learn about identified administrator tasks. Completers are recognized at an awards ceremony held during the annual Summit.

Training and instruction for individuals entering CATE from the business environment are provided through the Developing Instructional Readiness for Educators of Career and Technology (DIRECT) program. Preparatory courses related to academic and CATE

integration are offered for DIRECT participants as part of the requirements to attain initial teacher certification. The OCTE provides all CATE teachers with high quality, sustained, intensive, professional development focused on instruction through the Summit; annual conferences unique to each career cluster; numerous workshops that address curriculum delivery, new programs, and curriculum standards revision; and education symposia at annual student organization conferences. Through print and electronic materials, fall and spring workshops for CATE administrators and career guidance staff, and on-site visits that support whole-school reform and career center improvement efforts, the OCTE provides CATE educators with opportunities for professional development throughout the year. South Carolina will be among the first states to target career center reform through the SREB initiative *Technology Centers That Work (TCTW)*, providing the OCTE with an opportunity to target the professional development needs specific to the state's forty career and technology centers.

The OCTE supports the professional development activities conducted by colleges of education under the EEDA initiatives related to career guidance, the use of the clusters-of-study curriculum framework and individual graduation plans, the career guidance elements of the SCDE's guidance and counseling model, and contextual teaching. An OCTE staff member ensures that the career guidance component of the South Carolina Comprehensive Developmental Guidance and Counseling Program Model is available to all districts and schools and coordinates ongoing revisions needed to keep the document current. Career cluster guides developed for the clusters-of-study framework will be updated and distributed by the end of the 2007–08 school year to support professional development activities and student and parent involvement. The OCTE is collaborating with Aiken Technical College to complete initial work on a distance-learning component for contextual instruction in mathematics to support teachers following their instruction in the higher education classroom.

South Carolina has developed a "just-in-time" delivery system to provide career guidance professional development for teachers, school counselors, and career specialists. Monthly Carolina Careers workshops are broadcast live to schools and made widely available through streaming video access by the Instructional Television Services of SCETV. These workshops provide resources for career development and address topics such as scheduling career guidance activities, implementing career clusters and pathways, and providing articulation and dual enrollment opportunities for students. An instructional DVD highlighting South Carolina's career clusters and pathways was developed from a series of these broadcasts and distributed to LEAs for use with students, parents, teachers, and community stakeholders. The DVD includes information on the CATE course standards, national/industry certification and standards, applied learning techniques, and recommendations for working with special populations.

LEAs must describe their professional development activities in their local plans, and many budget Perkins funds to support professional development opportunities for CATE teachers, administrators, and career guidance and academic counselors. Examples of the uses of these funds are sending teams of academic and CATE teachers to the Education and Business Summit and assisting PLTW teachers in attending related institutes and workshops. CATE teachers are also provided with professional development opportunities to visit businesses/industries in their discipline so they can remain current with emerging technological equipment and relevant workplace competencies.

The technical colleges offer comprehensive professional development opportunities for faculty, staff, and administrators in an effort to continuously enhance the quality of instruction in CATE programs. Each college must provide narrative in the local plan application addressing the use of Perkins funds for professional development activities. The colleges will host several professional development days that allow for collaborative learning among the faculty and staff. Conferences and workshops will address a variety of topics including instructional design, assessment, classroom management, student advisement, and strategies for successful student outcomes. Colleges also bring in consultants to discuss effective strategies for working with special populations groups or to help faculty integrate academic and career and technical curricula.

Faculty learning communities will be implemented to promote the sharing, exploration, and development of effective pedagogical strategies that will increase student success and retention. Through these communities, faculty will complete projects that promote applied learning in each of the CATE program areas. Faculty and staff will also create annual professional development plans. These plans will help to ensure that instructors are maintaining current skills and licensure/certification requirements for their related industry.

Recruiting and Retaining Instructional and Guidance Staff and Improving the Transition to Teaching from Business/Industry

The SCDE works with the Center for Educator Recruitment, Retention, and Advancement (CERRA) to promote the teaching profession in South Carolina. Housed at Winthrop University and funded by the South Carolina General Assembly, CERRA operates with the mission of providing leadership in identifying, attracting, placing, and retaining well-qualified individuals for the teaching profession in the state. A recent joint initiative provided regional training sessions that focused on the knowledge, skills, and understanding essential for accomplished teachers who work with beginning teachers. Mentor training supports the concept that learning to teach is a career-long developmental process that involves continuous cycles of planning, teaching, and reflecting.

South Carolina's CATE teachers enter the profession through a number of avenues. Teachers in areas such as business education, agriculture, family and consumer sciences, 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). 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.

Teachers in these areas qualify for certification based on an evaluation of the individual's education and work experience related to the area of certification. Additionally, teachers certified through CATE work-based certification must demonstrate competency in the area of certification by obtaining appropriate industry certification or passing a state-approved area competency examination. 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 program provides both classroom and hands-on instruction in methods of teaching, classroom and laboratory management, curriculum, and assessment. Master teachers are involved in both classroom instruction and service as mentors to the new teachers. The primary goal of the DIRECT program is to provide the new teachers with the pedagogical skills needed to make a successful transition to the teaching profession.

To help meet the three hundred-to-one ratio for students and counselors under the EEDA, the state adopted a 120-hour certification program for career specialists to train them for delivering career guidance in middle and high schools. Over five hundred fifty career specialist positions were created. Newly recruited personnel are trained by nationally certified career development instructors and receive instruction in the use of the South Carolina Career Guidance Model. Recertification workshops are being offered to ensure retention of these career specialists who provide quality career programming in the secondary schools.

Recruitment and retention of postsecondary faculty is a cyclical process that involves collaboration of the colleges, businesses, and local communities. The technical colleges use a variety of recruitment methods including the Internet and print advertisements. Each of the colleges is challenged to maintain a strong relationship with local business and industry representatives. Doing such promotes a strong network for the recruitment of administrators and faculty, including those individuals who are underrepresented in the teaching profession.

Colleges will host career fairs to recruit faculty and staff from local businesses and industries. Business and industry representatives bring valuable practical experience to the classroom and to the development of academic curricula. New faculty members attend a college orientation and are assigned a mentor within their program area to help them transition smoothly into the college community. In addition to the orientation and mentoring programs, retention efforts are supported by strong professional development programs and the maintenance of quality academic programs.

Improving the Transition of Sub-baccalaureate CATE Students into Baccalaureate Degree Programs

Many of the degrees, diplomas, and certificates offered through the SCTCS are terminal programs designed to prepare students for full-time employment upon completion. However, the SCTCS encourages students, whenever possible, to continue their studies in a baccalaureate degree program. A statewide articulation agreement has been established for all public institutions of higher education in South Carolina. This agreement specifies a list of eighty-six courses that will transfer to the four-year institutions from the two-year institutions. At the local level, there are several regional transfer agreements in place between the technical colleges and their partnering public four-year institutions to support the career interests of students in their service area. Local agreements exist across the state in CATE program areas such as computer technology, engineering, health sciences, and culinary arts.

Efforts for seamless transition from two-year to four-year institutions are further supported by projects such as the Bridge Program with the University of South Carolina (USC). The SCTCS is working collaboratively to develop a statewide program with USC, one of the state's three public research institutions. Technical college

students participating in the Bridge Program will receive information on USC admissions, financial aid and scholarships, and academic support programs. Other potential services will include academic advisement, a college skills seminar, a mentoring program, and other information on career opportunities. Each of these activities is intended to better prepare students for baccalaureate studies and allow them to make well-informed decisions concerning their academic and professional goals. The technical colleges will continue to disseminate information to students about baccalaureate degree options through career and advisement services.

Involving Designated Groups in Planning, Developing, Implementing, and Evaluating CATE Programs

The OCTE and the SCTCS will use the input provided by the Perkins Five-Year State Plan Advisory Committee in developing and implementing the State Plan. Several members of this committee recommended that efforts to create awareness of and promote the value of CATE programs needed to be enhanced. One suggestion that will be pursued is to review the initiatives of the Education and Economic Development Coordinating Council's (EEDCC) marketing committee outlined in the council's 2007 annual report in order to combine efforts and strategies to effectively communicate CATE program initiatives to all stakeholders. The EEDCC annual reports will also be carefully reviewed, as recommended by a committee member who serves on the EEDCC, to ensure appropriate collaboration between CATE initiatives under the EEDA and Perkins IV as the State Plan is implemented over the next five years.

Parents, academic and CATE teachers, administrators, and career and academic guidance staff will be involved in the development, implementation, and evaluation of CATE programming in a variety of ways. The OCTE's quality review measures (QRM) are designed to provide guidance and direction to school districts, schools, and career and technology centers in establishing, maintaining, and evaluating CATE programs. The procedures and documents developed for the review require CATE administrators and career center directors to evaluate their programs annually based on ten themes of the *2020 Vision for Career and Technology Education in South Carolina*: accountability, business relationships, curriculum, funding, leadership, marketing, professional development, recruitment, structural change, and technology. The QRM evaluation instruments provide for reviews at the following levels: school district administration; school/center administration; student services, and curriculum and instruction. These review components involve, in varying degrees, school district administrators, high school or career and technology center administrators, guidance and placement personnel, and CATE teachers.

Under the EAA, high school and career center report cards must include an analysis of input from annual parent and faculty surveys regarding the learning environment and home-school relations. The TAVs that are scheduled periodically for over two hundred whole-school reform sites under *HSTW/MMGW* are structured to review parental and community involvement and the integration of curriculum by academic and CATE teachers. As part of the TAV process, parents, community business leaders, academic and CATE teachers, and guidance personnel are interviewed and included in the evaluation of the rigor and relevance of the CATE programs. All reform sites will undergo a programmatic assessment in spring 2008, and one very significant component of the assessment will address parental and instructor data collection on initiative reform issues and key practices.

At the local level, CATE advisory committee meetings will also be used to bring together business and industry, teachers, parents, students, and counselors to plan and develop effective career and technical programs that meet workforce and student needs. Schools will invite these same groups to serve on school improvement councils to advise local administrators on programs that serve the local communities and prepare students for careers. Secondary teachers, technical college instructors, and business and industry representatives assist in revising CATE program standards on a five-year frequency. National industry standards are used as a reference in developing CATE program standards and identifying technology needs.

Academic, business, and community stakeholders are actively involved in the administration of postsecondary CATE programs. Each college has an academic advisory committee for each of the CATE program areas. These committees consist of faculty; students; and representatives from local business, industry, and labor organizations as appropriate. The groups meet periodically throughout the year to evaluate program curricula and to assess employer and student needs in the local service area. Business and industry representatives also serve as members of the local area commission for each college. The commission must approve all requests for new CATE programs before they are sent to the SCTCS. Community involvement is essential to the success of postsecondary CATE initiatives, including the development of workforce partnerships for job placement and the completion of work-based learning activities.

Improving the Academic and Technical Skills of CATE Students through Challenging Academic Proficiencies, Curriculum Integration, and Industry Experience and Understanding

In 2007, for the third year in a row, South Carolina's academic standards have been praised as some of the most stringent in the nation, according to several privately-funded research studies examining academic proficiency under the NCLB. Incorporating the Revised Bloom's Taxonomy into the development process for South Carolina's revised academic standards will help teachers ensure that lessons and assessments are aligned and consistent with the state's academic standards, the lessons teachers create are cognitively rich, and instructional opportunities are not missed. Teachers will continue to receive professional development in using a matrix of knowledge categories and cognitive processes as a template to analyze their instruction as they align standards, units-lessons-activities, and assessments.

All postsecondary CATE courses are taught with challenging academic proficiency requirements. The SCTCS facilitates a peer group structure for each of the CATE program areas. The peer groups consists of representatives from each of the technical colleges who convene as necessary to discuss pertinent curriculum issues, including the development and revision of course competencies. Based on the suggestions of the program area peer groups, the chief academic officers have the primary authority to make decisions about program curricula and course competencies.

To guarantee statewide consistency in program offerings, each degree and diploma has a program model that must be used as a framework for developing new programs. Additionally, the SCTCS monitors a statewide catalog of approved courses. While program models or courses may initially be developed in response to one college's needs, each is reviewed for potential applicability across the system. The ultimate goal is for students across the state to receive the same quality of instruction and adhere to the same rigorous academic guidelines.

South Carolina will continue to support academic achievement for all students under the expanding *HSTW* network of schools, which includes high schools, career centers, and connecting middle schools under the *MMGW* initiative. CATE programs will prepare students to graduate from high school by integrating and reinforcing academics within CATE courses. Students who enroll in rigorous programs in high school will be exposed to math and science problem analyses that will prepare them for postsecondary education. CATE students, including special populations students, will benefit from the contextual reinforcement of academic concepts that are integrated with CATE course standards through class activities, reading assignments, and laboratory exploration using work-based scenarios. The OCTE also supports career and technical student organizations, which provide real-world opportunities for demonstrating the integration of academic and technical skills through leadership activities and competitive events at the school, district, state, and national levels.

Many postsecondary eligible recipients allocate Perkins funding to support the DACUM (developing a curriculum) process as it relates to revising or creating new program curriculum at the local level. This process allows the program administration and faculty to ensure that the course work is appropriately integrating academic and technical competencies and adequately preparing students for employment or transfer to a baccalaureate-degree program.

The OCTE strongly encourages eligible recipients to seek and obtain national or industry certification for CATE programs, which enables the LEAs to ensure that the technical skills taught in the secondary programs are directly related to those needed in business and industry. Automotive technology programs that are NATEF/ASE (National Automotive Technicians Education Foundation/Automotive Service Excellence) certified meet industry standards both in the facilities and in the curriculum, which allows students the opportunity to obtain industry certification. Automotive technology programs that are certified by the Automotive Youth Educational Systems (AYES) receive industry support through internship programs in local dealerships.

In the Hospitality and Tourism cluster teachers are becoming nationally certified in ProStart or Lodging Management so that they can offer these certifications to their students. The American Culinary Federation offers a program certification that affords every program graduate a national certification. The National Academy Foundation operates as a small learning community and offers students course work that provides the knowledge and skills needed to be successful in a hospitality and tourism career. Opportunities to obtain ServSafe certifications at both employee and manager levels are available to secondary CATE students. Aligning CATE courses with industry standards allows students to move directly into the workforce or into advanced college level courses.

Postsecondary CATE students benefit from work-based learning experiences, job shadowing, cooperative work experiences, and mentoring programs intended to provide them with exposure to all aspects of their industry. In some cases, students must complete a job-shadowing or mentoring experience as a requirement for receiving financial assistance under the Perkins grant. Students are introduced to real-life applications of course work, whether through clinical experiences, project-based learning, community service projects, or involvement in student organizations. An automotive technology program, for example, allows students to gain practical experience while providing repair services to local customers for a nominal fee.

Students must treat their class as they would an actual job by dressing professionally, bringing the appropriate tools to work, requesting leave, and interacting with the customers. Similarly, students in massage therapy or cosmetology programs are able to provide services to the community in classrooms that simulate real work environments.

Students are able to complete experiences such as these due to the strong support from communities and businesses/industries. Currently, the SCTCS is building upon these relationships and working with several community partners to strengthen the apprenticeship programs across the state. The SCTCS understands the importance of producing well-rounded graduates, and also seeks to enhance students' soft skills as a supplement to their academic and technical skills.

Providing Technical Assistance to Eligible Recipients

Technical assistance is the primary mission of the OCTE. Staff members provide assistance and support to eligible recipients through on-site visits, regional meetings, conferences, specially designed workshops, and other professional development activities. The following are examples of the assistance OCTE program staff members who are assigned to the various career clusters provide to local CATE programs, administrators, and teachers:

- updating curriculum standards and implementing new courses as recommended by statewide advisory committees to assure that curricula are rigorous and relevant for all students;
- aligning state standards with national standards;
- promoting state and national assessments, student credentials, and evaluations for programs, teachers, and students;
- planning and scheduling meaningful professional development opportunities for teachers to support program standards and initiatives;
- publishing directories of programs and teachers;
- developing, assimilating, and disseminating teacher resources;
- participating in national organizations that support the program mission;
- facilitating instructional materials adoptions; and
- connecting educators with business and industry.

The OCTE provides technical assistance through fall and spring professional development conferences and the annual Education and Business Summit. Because the EEDA, the *HSTW* whole-school reform initiative, and the academic and career and technical focus of Perkins IV are inextricably linked in South Carolina, the OCTE staff will be able to provide coordinated technical assistance in support of these initiatives at the school, district, and state levels. Focused technical assistance will continue to be provided for districts, schools, and career centers making special requests for such support.

The OCTE regularly provides guidance staff at high schools with technical assistance through the monthly workshops delivered through the SCETV's Office of Instructional Technology. The OCTE's education associate for career guidance serves on *HSTW* and *MMGW* TAV teams to evaluate guidance efforts and provide assistance. *HSTW* and *MMGW* site teams are provided with training, technical assistance, and NAEP-referenced assessments to support their implementation of the key practices and conditions for whole-school reform.

The SCTCS staff will provide technical assistance to colleges on the local plan application process, programs of study, amendment procedures, student file management, accountability requirements, integration strategies, and other areas as needed. Using a rotating schedule, the SCTCS staff will complete technical assistance visits to each of the postsecondary local recipients to review grant management processes and procedures. The colleges will receive feedback on each of the technical assistance visits and will be given recommendations for process improvement. These visits will also be used to compile best practices among postsecondary eligible recipients.

Additionally, Perkins administrators at the postsecondary level have access to an online work group that will serve as a centralized location for procedural updates and grant resources. As a supplement to face-to-face technical assistance workshops offered during the year, colleges will be encouraged to utilize the recorded technical assistance sessions made available through the online work group. A series of training modules will be developed to assist local recipients with the transition to Perkins IV. These modules will be interactive and will serve as resources and refreshers for postsecondary administrators. Wherever possible, the SCTCS will offer performance feedback to colleges to include an annual report summary and an annual report on the uses of funds.

Relating CATE to State/Regional Occupational Opportunities

Career and technical education is directly related to state and regional career and technology opportunities. LEAs determine what courses or programs to offer or to develop based on the local, regional, and state labor markets. There are several excellent resources to assist LEAs in determining current and future occupational opportunities. The South Carolina Chamber of Commerce's *Skills That Work* survey, currently in its fourth edition, examined the needs of South Carolina employers and addressed academic and CATE requirements as they relate to state and regional employment opportunities. The surveys, intended to identify gaps between skills and competencies taught in schools and those needed on the job, determined that career success is influenced by focusing on a solid foundation in high school, taking advantage of technical training, and adding the personal skills deemed important to South Carolina's employers. The results of the survey have been made widely available to school districts, two- and four-year colleges, businesses, and public agencies to promote data-driven decisions regarding courses and curriculum.

High-demand jobs in South Carolina requiring training or a high school diploma range in salary from \$6.94 to \$15.34 per hour and include positions such as Home Health Aides, Landscapers and Groundskeepers, and Automotive Body Repairers, positions directly related to career and technical education. The five positions with the highest salaries can be found in Table 1.

Table 1. Growing Jobs Requiring Training or a High School Diploma	
Position	Salary
Heating & Air Conditioning Mechanics	\$15.34
Welders/Cutters, Solderers	\$14.99
Automotive Body Repairers	\$14.64
Maintenance & Repair Workers	\$14.63
Dental Assistants	\$12.81

Source: 2006 South Carolina Chamber of Commerce

The South Carolina Occupational Information System (SCOIS) is used by the state's eligible recipients to access labor market information. The SCOIS is a state-based computerized career information delivery system that is available in middle schools, high schools, career centers, technical colleges, four-year institutions of higher education, and other sites where young people are making career and education decisions. In addition to career assessments and job-market projections, the SCOIS provides descriptive information regarding occupations and their specialties, duties, working conditions, advancement and employment opportunities, physical and education requirements, and education and training opportunities. Funding was secured in 2007 to provide South Carolina schools with free access to SCOIS, making information regarding demand for occupations in South Carolina and the nation readily available to CATE educators and students.

The mission of the SCTCS is to provide learning opportunities that promote the economic and human resource development of the state. The mission of each college parallels that of the system as is evidenced in the continuous development and improvement of CATE programs and services. According to data published by the U.S. Department of Labor, Bureau of Labor Statistics, the postsecondary programs in South Carolina include the fastest growing employment fields. These include many of the allied health and computer technology programs.

New postsecondary programs are developed in response to local labor market needs. Before submitting any new program proposals, a college must complete an employment needs survey of the local service area. Additionally, colleges research national and regional employment statistics to further support the need for graduates of a proposed program. The anticipated student enrollment and graduation rate should, to the extent possible, offset the needs of the local workforce. Each year, graduate placement rates are measured in the Perkins annual report.

Planning and Coordinating with Other Federal Programs

The OCTE provides state leadership in serving members of special populations through an equity coordinator, who serves as a liaison and collaborative partner with other agencies and offices and coordinates the SCDE's methods of administration (MOA) evaluation team. The OCTE will continue to coordinate planning and activities with the SCDE's Office of Exceptional Children, which administers programs under the IDEA (Individuals with Disabilities Education Act) and the Office of Adult Education, which administers the federal Adult Education and Family Literacy Act (AEFLA), enacted under Title II of WIA.

School districts work with the South Carolina Commission on National and Community Service as they implement service learning as a component of the work-based learning activities provided for secondary students. The OCTE reports students who participate in activities supported by the federally-funded Learn and Serve formula and competitive school-based grants. The OCTE coordinates accountability planning and reporting for the Perkins core indicators 1S1 (proficiency in reading/language arts), 1S2 (proficiency in mathematics), and 4S1 (graduation rates) with SCDE offices and staff responsible for the accountability provisions of NCLB.

The OCTE and the SCTCS have coordinated CATE activities and funding priorities for the WIA incentive grants administered by the South Carolina Department of Commerce

(SCDOC) under the previous Perkins legislation. Workforce development activities will continue to be coordinated with appropriate state agencies and federal programs.

Ensuring Coordination and Non-Duplication of WIA Programs and Services for Postsecondary Students and School Dropouts

Representatives from the technical colleges are involved in the local workforce investment boards. Such representation will ensure that each technical college is aware of the programs conducted under the WIA and assists the college in avoiding a duplication of programs. Additionally, the SCTCS staff and the SCDOC's workforce development team communicate frequently regarding opportunities to collaborate on programs.

State Eligible Agency and Governance Structure for the Perkins Act

The South Carolina State Board of Education (State Board) is the designated eligible agency under the Perkins Act. As the administrative entity for the State Board, the SCDE is responsible for the administration and supervision of CATE programs consistent with state laws and in accordance with 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 OCTE is the official representative of the state superintendent in all matters pertaining to career and technical education and is responsible for the planning, administration, coordination, supervision, and promotion of all phases of the CATE program in South Carolina. The OCTE conducts the state-level activities related to implementing the state plan, allocating and distributing resources to eligible recipients, monitoring and evaluating program effectiveness, ensuring compliance with all applicable federal laws, and providing technical assistance. The OCTE coordinates the state performance accountability system and collects data from the eligible recipients of the secondary funds.

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 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. The SCDE collaborates with the SCTCS in developing and updating the Perkins state plan and carries out the state administration and leadership activities required of each eligible agency under the federal law. The SCDE's OCTE will provide direction and assistance to the SCTCS in administering the Perkins IV postsecondary funds and in implementing the postsecondary local application and performance accountability procedures.

Eligible Recipients and Local Plan Application Forms

Eighty-five school districts offer secondary CATE programs in high schools, middle schools, and career and technology centers that operate within most of the larger school districts. Two state correctional agencies, one for juveniles and one for adults, operate as special school districts and provide secondary CATE programs. In addition, eleven independent, multidistrict career centers provide CATE programs to students from districts that do not have their own career centers. These multidistrict career centers are eligible to receive funds distributed to LEAs under Section 131 of Perkins

IV through consortium agreements with participating school districts. The OCTE provides funding, policy guidance, and technical assistance to these ninety-eight eligible recipients under the Perkins Title I funds for secondary programs.

The SCTCS receives Perkins funding for state administration of the Perkins Title I funds allocated to South Carolina's sixteen technical colleges, which are the eligible recipients for the postsecondary funds. Postsecondary recipients completed a local plan application for the transition year. The postsecondary local plan application for the remaining grant period is still in development. Recipients will now submit applications through an online data tracking system.

Electronic copies of the 2007–08 Perkins local plan application forms for secondary and postsecondary eligible recipients will be submitted through the OVAE state plan online submission process. The secondary local plan forms used for 2009–2013 will be revised to address the requirements of the General Education Provisions Act (GEPA) in narrative format. The postsecondary local plan for the remaining grant period will be revised to include a narrative section for colleges to explain the implementation of programs of study and a section on improvement plans and local negotiations. Assurances will be updated accordingly to address these new sections. Once an agreement is reached with the OVAE regarding the levels of performance for all core indicators, the accountability sections of the secondary and postsecondary local plans will also be updated.

Role of Postsecondary CATE in the WIA One-Stop Delivery System

The memorandum of understanding between the local boards and the one-stop delivery systems in the local areas will conform to guidelines defined in the State Plan and the WIA provisions. The content of the memorandum of understanding will include a description of the services to be provided by the one-stop delivery system, how the service and operation costs will be paid, methods of client referral, memorandum of understanding term duration, and methods of amending the memorandum of understanding. Overall, the one-stop career center will integrate employment and training programs into a single, customer friendly set of services. In addition, it will provide the local community an opportunity and the flexibility to design and implement these unified services.

Serving as workforce partners in their local service areas, the state's sixteen technical colleges can play an important role in this one-stop delivery system. The mission of the SCTCS places an emphasis on providing learning opportunities to promote economic and human resources within the state. The colleges maintain contact with local businesses and industries, educational institutions, community service organizations, and local government agencies. These contacts help the colleges, in part, to understand the needs of the local communities and better identify ways in which the technical colleges can help in addressing those needs. Through their academic programs, the colleges are involved in technical and career education, lifelong learning, occupational advancement and career development, guidance, and placements. Thus, the technical colleges are in a good position to be effective partners and participants in the workforce development activities.

III. PROVISION OF SERVICES FOR SPECIAL POPULATIONS

Equal Access for Special Populations Students

Section 3(29) of Perkins IV identifies “special populations” as individuals with disabilities; individuals from economically disadvantaged families, including foster children; individuals preparing for nontraditional fields; single parents, including single pregnant women; displaced homemakers; and individuals with limited English proficiency. Students who are identified as the special populations under Perkins IV are afforded equal access to CATE programs.

The OCTE will help school districts ensure that students who are members of special populations are provided equal access through outreach and recruitment by increasing awareness of career and educational options. Career development activities will include career counseling and exploration focusing on career paths to high-wage, high-skill, or high-demand occupations. Advisement, tutoring, and special classes will be available for academic support. Special populations students will have access to and be exposed to technology to foster success. School districts will provide professional development for staff to assist them in effectively advising and teaching special populations students in CATE programs.

The OCTE will participate in activities sponsored by national organizations such as Women Work!, the National Alliance for Partnerships in Equity, and the Southeastern Equity Advisory Committee to identify best practices and provide effective technical assistance to the districts. The OCTE will support innovative linkages between districts and community stakeholders such as institutions of higher education, local businesses, and public welfare and workforce agencies. The SCTCS has an open admissions policy for the technical colleges that makes programs and services available to all citizens who can benefit from available learning opportunities, including individuals who are in the Perkins IV special populations groups.

Nondiscrimination for Special Populations Students

The OCTE will help school districts ensure that all students experience equal access, opportunities, guidance, support, and success in every aspect of their secondary education. The SCDE is committed to implementing and meeting the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Title II of the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. Through the OCTE’s involvement in the MOA process, staff members will ensure that CATE students who are members of special populations are not discriminated against, that career and guidance counseling is equitable, that students are making career choices based on their career interests, that accessibility to programs is provided, and that strategies and support services are helping members of special populations to be successful in CATE programs. The sixteen technical colleges will be required to adhere to the SCTCS nondiscrimination clause in the student code, which prohibits discrimination against a student or prospective student based on race, color, age, religion, national origin, sex, or disability.

Program Strategies for Special Populations Students

The SCDE will provide leadership to LEAs in developing assessment strategies to evaluate the career interests and learning styles of special populations students. The local plan applications and progress reports will 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 will review 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-skill, high-wage, or high-demand occupations. The OCTE will also recommend strategies that LEAs can use to help ensure that the structure of the educational environment is appropriate for special populations students:

- providing professional development opportunities for staff to promote a better understanding of the needs of special populations students;
- offering short-term courses with flexible schedules, virtual courses, and other distance-learning opportunities;
- ensuring that CATE recruitment activities and promotional materials are free of bias or stereotypes and are germane for all students;
- providing support services, such as teaching study and survival skills; and
- coordinating with business and industry representatives to provide job-shadowing opportunities, work-site visits, and presentations on careers.

The technical colleges will identify programs that target special populations in their local plan applications. Examples of past activities include child care for single parents, transportation, tutoring services for students with learning disabilities, and work-based learning experiences for those entering into nontraditional fields. Colleges will be asked to explain specifically how their programs will prepare special populations for high-skill, high-wage, or high-demand occupations and enable these students to meet or exceed state performance goals. Colleges report on the performance of the special populations group as part of the annual report.

Addressing the Needs of Students in Alternative Programs

The EEDA requires that all high schools in South Carolina implement one or more evidence- or research-based models to address the needs of students at risk of being unprepared for a successful transition into the workplace or the next level of education, or at risk of dropping out of school. EEDA staff members in the SCDE are working to support that component of the legislation and to ensure compliance with the recent State Board regulation implemented in response to the legislation. The OCTE supports the evidence- and research-based models that serve CATE students with needs identified among at-risk populations. The *HSTW* whole-school reform model and the OCTE's efforts surrounding this particular initiative's CATE key practices strengthen the state's approach of identifying alternative programs that address the needs of CATE students. While the models that will be implemented may be components of alternative programs, all models identified, by directive in the EEDA, must support students working toward attaining state high school diplomas. No "alternative" diploma has been recognized at the state level in South Carolina.

Use of Funds to Promote Preparation for High-Skill, High-Wage, or High-Demand Occupations and Nontraditional Fields

The OCTE will use state leadership funds to develop and pilot new programs in high-skill, high-wage, or high-demand occupations such as the MIT program leading to careers in mechanical, industrial, or electrical engineering, as well as programs that prepare students for careers in aerospace engineering and biotechnical engineering. New programs in nanotechnology, hydrogen fuel cells, and aerospace engineering are being investigated. Reserve funds will be used to encourage and support local

implementation of new and innovative CATE programs. The OCTE's equity coordinator, who serves as a liaison and collaborative partner with other agencies and SCDE offices, will provide state leadership to help LEAs ensure that special populations students are involved in all aspects of the career exploration process in order to inform them of high-skill, high-wage, or high-demand opportunities that could lead to self-sufficiency.

South Carolina will reserve \$60,000 in leadership funds to support programs for students who are pursuing nontraditional fields. These funds will be used to provide comprehensive technical assistance to districts to promote nontraditional participation and completion. Funds will be used to promote professional development regarding equity principles to ensure that students are not being discriminated against. The state will also provide opportunities for innovative grants that will promote collaboration of activities with measurable outcomes between secondary and postsecondary recipients.

Each of the postsecondary CATE programs is designed to prepare students for high-skill, high-wage, or high-demand occupations. Supplemental instruction, tutorial services, internships, and other work-based learning experiences are made available to students to ensure they are adequately prepared for their chosen career path. The colleges have several initiatives in place to help increase enrollment of the underrepresented gender in nontraditional programs. Advisors encourage students to attend monthly career sessions that spotlight nontraditional occupations for men and women. Outreach agencies, advisory committees, and college faculty actively recruit students for enrollment in nontraditional programs. Retention strategies for these students include their involvement in support groups and mentoring programs, as well as their participation in networking events with other professionals who are successful in a nontraditional field.

The SCTCS will work in collaboration with the SCDE to determine professional development opportunities for faculty and staff who administer nontraditional programs. Additionally, the colleges use Perkins funds to provide training and workshops at the local level that address working with nontraditional students. Perkins funds are also used to support faculty and staff involvement in national organizations that promote gender equity in education and the workplace.

Use of Funds to Serve Individuals in State Correctional Institutions

State correctional institutions are treated as LEAs in South Carolina and receive a secondary allocation of Perkins funds to meet the unique needs of incarcerated youth. CATE courses and programs offer inmates the skills and knowledge that they will need to enter employment upon release. Business and industry provide incarcerated youth with a form of work-based learning that can further the rehabilitation process. Programs exist to connect students to jobs through community outreach and support. The OCTE provides technical assistance regarding CATE course competencies, curriculum modification, on-site work-based learning possibilities, and curriculum integration. In addition, teachers and administrators from the state's correctional institutions attend in-service training offered by the OCTE.

GEPA 427(b) Requirements for Applicants of Federally Assisted Programs

Each eligible recipient will address the GEPA Section 427(b) requirements in the local application for funding. LEAs will be required to include a description of the steps that will be taken to remove barriers that may exist regarding equitable access to, or

equitable participation in, activities and programs that will be undertaken with the federal funds provided. The local plan will also contain assurances that address equitable access to and participation in federally assisted programs for students, teachers, and other program beneficiaries with special needs. An assurance signature form containing the signatures of the district superintendent (or designee) or career center director, the local CATE advisory council chairperson, and the district or career center business official is required for each secondary eligible recipient requesting Perkins funds.

The postsecondary local plan application will address each college's intent to adhere to the guidelines outlined in section 427(b) of the GEPA. Two of the assurance statements on the local plan application will address equitable treatment of all students enrolled in technical education programs, regardless of their sex, disability, race, color age, social status, religion, national origin, economic level, or any other areas of unlawful discrimination. The college must submit a signed statement verifying their compliance with each of the stated assurances for the grant application year. Furthermore, the local plan application will require colleges to describe strategies that prevent discrimination against special populations students. Many colleges solicit the aid of assistive technology services on their campuses. Others offer financial assistance for economically disadvantaged students or focus their efforts on nontraditional program outreach activities.

IV. ACCOUNTABILITY AND EVALUATION

Note for State Board of Education: The Perkins IV CATE student definitions, measurement definitions and approaches, and state adjusted levels of performance discussed in this section and included in Part C—Accountability Forms must be negotiated with the OVAE's regional accountability specialist prior to approval and at specified intervals during the period covered by the State Plan. The State Board of Education authorizes the SCDE to negotiate accountability requirements with the OVAE and make changes to the State Plan required for approval by the U.S. Department of Education.

Obtaining Input from Eligible Recipients for Measurement Definitions and Approaches and State Adjusted Levels of Performance

A statewide advisory group of CATE district, career center, and high school representatives was formed to provide input in establishing measurement definitions and approaches for the secondary performance indicators and to provide input on the student definitions. The accountability advisory group and eligible recipients expressed concern over the state's definition of a concentrator that was submitted in the one-year transition plan and proposed a revised definition. The major issue was a lack of differentiation between the definition for a concentrator and the state's definition for a completer. South Carolina's definition for a participant and the proposed revised definition for a concentrator are provided in the required Final Agreed Upon Performance Levels (FAUPL) form in Part C.

The SCTCS solicited participation from technical college representatives to serve as members of the postsecondary accountability work group. The work group reviewed the existing measurement definitions and approaches used for the postsecondary indicators under the current law and discussed whether those definitions and approaches are applicable under the new law. Areas of focus specifically included the collection of technical skills assessment data, use of the National Center for Education Statistics (NCES) cohort, and use of the National Student Clearinghouse database to verify enrollment for transfer students. The work group presented an accountability update to the sixteen technical colleges (including members of the Institutional Effectiveness Peer Group) and requested additional feedback on definitions and performance measures.

The accountability work group members reconvened in fall 2007 to set baselines and proposed performance levels utilizing the most recent data available. The SCTCS staff worked with the Information Technology department to gather trend data for each indicator according to the new participant and concentrator definitions. The historical data available from the Perkins III indicators were not applicable because the definitions and measurement approaches were modified to be consistent with the nonregulatory guidance provided by the OVAE for Perkins IV. The accountability work group reviewed the trend data for each core indicator in an effort to better understand the performance patterns from year to year. The group reached unanimous agreement to continue setting performance levels according to the current practice of .5 percent annual incremental increases for each indicator, with the exceptions of indicators 5P1 and 5P2 (nontraditional participation and nontraditional completion), where .25 percent increases will be applied. The SCTCS will negotiate the proposed performance levels with the OVAE's regional accountability specialist within the coming months.

Establishing Valid and Reliable Measurement Definitions and Approaches for Each of the Core Indicators of Performance

South Carolina's measurement definitions and approaches that will be used for each of the eight secondary core indicators of performance are identified in the FAUPL form in Part C. As required by the U.S. Department of Education, the two academic attainment core indicators will be measured using the academic assessments that have been approved for South Carolina under NCLB, and the measure of student graduation rates for core indicator 4S1 will be aligned with NCLB. South Carolina revised the measurement definition for core indicator 2S1 to provide a measure of technical skill attainment for all concentrators who complete a CATE program. The proposed measure is valid, reliable, and consistent with Perkins IV, sections 113(b)(2)(A)(ii) and 113(b)(2)(D–F). The measurement definition for core indicator 5S1 varies slightly from the OVAE's nonregulatory guidance; however, it is consistent with the measure used under Perkins III and approved under the state's Transition Plan for 2007–08.

- 2S1 (Technical Skill Attainment)—Grade point average (GPA) in CATE courses will be used as a valid and reliable measure of technical skill attainment for secondary concentrators who complete a CATE program where an industry certification/credential is not available or appropriate. This measure reflects the varied methods of assessing knowledge and skills commonly used by instructors in CATE classes. Such assessments are representative of student learning and student-demonstrated proficiency in South Carolina's CATE course standards, which are developed at the state level by secondary and postsecondary instructors and business-industry representatives. These CATE course standards are implemented in secondary CATE courses statewide. In some instances, national business-industry standards are adopted outright for use in secondary CATE courses. Further discussion of using CATE GPA as a valid and reliable measure of student achievement is provided within the section pertaining to technical skill assessments.
- 5S1 (Secondary Placement)—South Carolina is required by a state law, which has been in place since 1984, to report data on those students who completed a CATE program and who are placed in postsecondary education, military service, or employment. The law stipulates that students are to be surveyed ten months after graduation, and the data averaged over a three-year period. Therefore, the quarter in which students are surveyed for the numerator will vary from the guidance provided by OVAE. The surveys, administered by the LEAs, are designed to cover 100 percent of all concentrators who complete a CATE program. For 2006–07, the survey response rate was greater than 93 percent.

The remaining secondary measurement definitions and approaches are valid, reliable, and consistent with the definitions and approaches recommended in the nonregulatory guidance issued by the OVAE. Each measurement definition and approach is intended to directly measure the student outcome for which it is intended in a consistent manner. Data collection criteria and methods will remain constant, which should produce reliable data that can be used for accountability and continuous improvement purposes.

South Carolina's postsecondary measurement definitions and approaches that will be used for each of the six core indicators of performance are also identified in the required FAUPL form (Part C). The postsecondary accountability work group members developed measurement approaches and definitions that are modeled after the

nonregulatory guidance provided by the OVAE. The accountability work group members developed measurement approaches that are within the scope of each core indicator, and the work group considers these approaches to be valid and reliable. The accountability work group chose to alter the measurement definition provided by the OVAE for onetwo of the six postsecondary indicators as explained below:

- 2P1 (Credential, Certificate, or Degree)—The SCTCS gathers completion data from the NCES Integrated Postsecondary Education Data System (IPEDS), which reports on students graduating within 150 percent of their program completion time. Consequently, the reporting periods for the numerator and denominator definitions will vary slightly from those suggested by the OVAE. IPEDS is a comprehensive system used nationwide for data collection by two-year and four-year institutions; therefore, the accountability work group considers the system a valid and reliable approach for this indicator.
- 4P1 (Placement)—The colleges will report on the same information referenced in the OVAE measurement definition for this indicator (i.e., job placement, military). However, the colleges currently submit data for this indicator based on an annual program evaluation. This evaluation requests data for students nine months (third quarter) after their last date of enrollment, instead of the six months (second quarter) suggested by OVAE. To avoid duplication of data collection, the accountability work group decided to continue to use this method to obtain data, eliminating the “second quarter” reference from the definition.

It should be noted that the SCTCS intended, as written in the transition-year plan, to procure employment data from the South Carolina Employment Security Commission (ESC) in an effort to be consistent with reporting second quarter placement information. However, the ESC recently enacted a 52 percent price increase in the cost per matched student employment record. Consequently, procuring services at this significantly increased price would adversely affect the other activities funded from the postsecondary administrative budget (i.e., technical assistance for technical colleges, data-tracking system development, and professional development). Therefore, the SCTCS will renegotiate the approach for indicator 4P1 (placement) with the OVAE's regional accountability specialist.

Aligning Perkins Indicators with Information for Other State and Federal Programs

The measurement definition and approach used for indicator 5S1 (placement) mirrors a South Carolina law that requires the reporting of data on those students who completed a CATE program and who are placed in postsecondary education, military service, or employment, averaged over a three-year period. LEAs are required to survey CATE completers ten months after graduation to determine their placement status with regard to employment, postsecondary education, or military service. Placement data reported in 2007–08 will be compiled with data reported for the previous two years to obtain the percentage of students placed in a related area for the three-year period. Data for the remaining indicators will be obtained from the School Administrative Student Information (SASI) system, a statewide student and school administration information system designed to monitor and track individual student information and progress.

Three of the postsecondary indicators require the use of data submitted by the colleges for other state and federal programs. The SCTCS will gather information for

indicator 1P1 (technical skill attainment), 2P1 (credential, certificate, or degree), and 4P1 (placement) from the State Institutional Effectiveness Data Reporting, IPEDS, and the State Institutional Program Evaluation Report, respectively. The remaining indicators will be measured by independent data sources used solely for Perkins reporting.

Proposing Performance Levels for the First Two Years under the State Plan

South Carolina submitted proposed performance levels for 2007–08 (Year One) and 2008–09 (Year Two) for the secondary indicators 1S1, 1S2, and 4S1 as required for the one-year transition plan. The current State Plan includes the proposed performance levels for these indicators for Years One and Two and the proposed performance levels for the remaining secondary indicators and all postsecondary indicators for Year Two under Perkins IV.

Indicator 1S1—Academic Attainment (Reading/Language Arts)

South Carolina accepted the state adjusted performance levels as proposed by the OVAE for Year One and Year Two for indicator 1S1 (academic attainment, reading/language arts) of 52 percent and 52.2 percent, respectively.

Indicator 1S2—Academic Attainment (Mathematics)

South Carolina also accepted the state adjusted performance levels as proposed by the OVAE for Year One and Year Two for indicator 1S2 (academic attainment, mathematics) of 50 percent and 50.2 percent, respectively.

Indicator 2S1—Technical Skill Attainment

South Carolina used 2006–07 data for student grade point average (GPA), the limited state data available for secondary students who have received industry certifications/credentials, and more extensive data from Virginia on student attainment of certifications/credentials to determine a baseline for indicator 2S1. Because technical skill assessments are not currently available for the majority of CATE completers in South Carolina, the state will use a combination of GPA and available technical skill assessments for several years. The use of GPA will decrease as more technical skill assessments become available. The baseline for indicator 2S1 (technical skill attainment) is 88.4 percent. The proposed adjusted performance level for Year Two is 87.3 percent. The baseline and adjusted level of performance are based on a weighted average between GPA and the known assessment results, which are limited. Since performance is higher using GPA, the performance goal will decrease each year as skill assessments become available for more students and GPA is used for fewer students.

Indicator 3S1—Secondary School Completion

The baseline for secondary school completion, indicator 3S1, is 98 percent, the three-year average of performance data for this indicator. The proposed adjusted performance level of 95 percent for Year Two is based on guidance received from OVAE.

Indicator 4S1—Student Graduation Rates

South Carolina has adjusted its performance level for indicator 4S1 to 70.9 percent because that is the high school graduation rate the state has to achieve to demonstrate AYP for this NCLB indicator in 2007–08. The South Carolina Accountability Workbook states, "Using the current graduation rate as the baseline, each high school will meet AYP annually if they equal or exceed the previous year's graduation rate or if

the graduation rate averaged over three years (this year's rate and the two previous academic years) equals or exceeds the previous year's graduation rate. The 2007 NCLB graduation rate for South Carolina was 70.9 percent. The proposed adjusted performance level for Year Two is 71.1 percent; however, this may change to reflect the state's goal under NCLB once the 2008–09 NCLB graduation rate is determined.

Indicator 5S1—Secondary Placement

The baseline for indicator 5S1 (secondary placement) is 97.7 percent, the three-year average of performance data for this indicator. The proposed adjusted performance level of 95 percent for Year Two is based on guidance received from the OVAE.

Indicator 6S1—Nontraditional Participation

The baseline for indicator 6S1 (nontraditional participation) is 15 percent, the three-year average of performance data for this indicator. The proposed adjusted performance level for Year Two is 15.2 percent.

Indicator 6S2—Nontraditional Completion

The baseline for indicator 6S2 (nontraditional completion) is the three-year average of performance data for this indicator, 15.5 percent. The proposed adjusted performance level for Year Two is 15.7 percent.

The SCTCS was not required to propose performance levels for the postsecondary core indicators for the transition year. The baseline data and proposed performance levels for Year Two for all postsecondary indicators are included in the FAUPL form (Part C). Baselines and proposed performance levels were established using the most recent data available.

Negotiating Local Performance Levels and Establishing Criteria and Methods to Allow Local Revisions Due to Unexpected Circumstances

The OCTE has developed a process used to annually assess performance on the Perkins core indicators for each secondary eligible recipient. LEAs that fail to meet one or more of the core indicators of performance are required to initiate a local improvement-plan process based on a three-tiered approach for state technical assistance outlined in the state improvement plan. Assignment to level 1, 2, or 3 will determine the degree and type of technical assistance provided by the OCTE as well as the opportunity to negotiate local levels of performance under Perkins IV. Level 1 is the highest level assigned for assistance and review. LEAs will be assigned to level 1 on the basis of performance significantly below the state adjusted performance levels and, therefore, will have an opportunity to negotiate local adjusted performance levels. LEAs that meet (or could reasonably be expected to meet) the state adjusted performance levels the following year will be required to accept these levels. All LEAs will establish performance levels that ensure continual progress toward improving CATE student performance by accepting the state adjusted level of performance or negotiating a local level that reflects local improvement annually for each core indicator of performance.

If unanticipated circumstances arise such as a natural disaster, re-districting, school closings, etc., with respect to a school district or multidistrict career center, resulting in a significant change in the factors that determine the LEA's levels of performance, the LEA will be allowed to request a revision to its local adjusted levels of performance. Documentation will be required that supports the request for the revision, explains how the revision to the local adjusted levels of performance promotes continuous

improvement on the core indicators, and includes a timeline indicating when the eligible recipient intends to resume meeting the state adjusted levels of performance. The written request must be submitted to the OCTE for review and will be subject to the director's approval.

The SCTCS has established guidelines and procedures for negotiating with colleges on local performance levels for the postsecondary indicators. Annually, colleges will indicate their intent to either accept the state adjusted levels of performance or negotiate local adjusted levels of performance on the local plan application. During the local plan approval process, SCTCS staff will give consideration to eligible recipients that show just cause as to why they will be unable to meet at least 90 percent of the state adjusted levels of performance for one or more of the indicators. Colleges that fail to meet 90 percent of the state adjusted levels from the previous year will be required to implement an improvement plan and negotiate local adjusted levels that require the college to continually make progress toward improving the performance of CATE students for subsequent years. The SCTCS will provide technical assistance to the colleges to address critical need areas identified for program improvement. It is expected that low performing colleges will develop an improvement plan and set local adjusted levels of performance that will position a college to perform within 90 percent of the state adjusted performance levels within three years of implementing the improvement strategies.

If unanticipated circumstances arise with respect to a college, resulting in significant change (e.g., reduced funding, natural catastrophe), the SCTCS will allow the college to request revisions to the local adjusted levels of performance. The SCTCS will issue criteria and methods within the policies and procedures manuals on how a college can make such revisions. Similar to the local plan application process, any written requests for local performance level adjustments, along with any supporting documentation, will undergo a review process by SCTCS staff.

Collecting and Reporting Complete, Accurate, and Reliable Data

The SCDE utilizes the SASI system, a comprehensive electronic student data collection system for all public schools. The OCTE receives SASI student-level data for students in CATE courses and programs. The data collected will be used to measure academic achievement, technical skill attainment, high school completion, graduation rates, placement status, and nontraditional participation and completion. The data system provides demographic variables on all students, including specific special population data. Additional variables will be added to the data collection system in order to meet reporting requirements under Perkins IV beginning with school year 2007–08. Student information entered into the SASI database by each school during the year is submitted to the SCDE in June. The school and district data will be aggregated to obtain state totals for each of the secondary core indicators. State totals will then be disaggregated to provide information on the special populations groups for analysis and reporting.

The SCDE has been collecting data on CATE students for several years. As with any data collection system, errors and omissions have been detected. A reporting procedures guide is developed by the OCTE and disseminated to school districts to help ensure the correct coding of fields within the data collection system. Regional training sessions on data reporting are held across the state with required attendance for all districts and career centers. During these training sessions, common errors and misconceptions are discussed. Procedures are demonstrated that local districts/centers

could use to verify that their data are accurate and complete. Within the OCTE, extensive checks and crosschecks on the consistency and reliability of local data are run. To emphasize the importance of complete, accurate, and reliable data, sanctions will be implemented on the basis of inaccurate and incomplete data.

Colleges report data to the SCTCS using a comprehensive database system that houses student data including program major, gender, full-time/part-time status, GPA, CIP codes, faculty, courses, race, age, and other demographic information. Each college provides a signed assurance statement verifying that the data provided to the SCTCS are complete, accurate, and reliable.

Based on the data in this system, the SCTCS has developed customized Perkins indicator reports that will be used by the colleges to identify student cohorts. Student progress will be measured on the basis of data extracted from the SCTCS's Enterprise Decision Support System (EDSS). EDSS is a secure electronic data warehousing and reporting system designed to ensure logical and physical integrity, compatibility, accuracy, and consistency among files. The colleges will utilize their individual records management systems to identify the special populations groups defined in Perkins IV. Disaggregated data on special populations are provided to the SCTCS through surveys obtained by way of SharePoint Portal, the SCTCS's college-wide intranet.

Currently, SCTCS staff is working to create an online, password-protected Perkins IV data management tracking system. The tracking system will allow for more accurate and consistent recordkeeping and will provide a centralized location for pertinent grant information. The system will manage and track the local plan application, amendment requests, reimbursements, annual performance reports, and improvement plan processes. The connection between the reporting and operational components of the grant will provide the SCTCS with real-time accountability for every dollar allocated to the colleges and will ultimately provide more valid and reliable data for annual reporting. The first phase of the system will be created and operational by spring 2008 in time to receive the local plan applications from the colleges.

Evaluating CATE Program Effectiveness and Coordinating with other Federal Programs to Ensure Nonduplication

The OCTE has implemented an accountability system that integrates data collection, performance assessment, continuous program improvement, and state and federal funding into a cohesive strategic planning tool for the LEAs. The OCTE annually evaluates the effectiveness of CATE programs through the state improvement plan, the local plan application, and the annual progress report. Under the state improvement plan, school districts and multidistrict career centers are notified each fall of their annual performance results for the previous school year. LEAs that do not meet one or more of their Perkins core indicator performance goals are required to initiate a local improvement plan process. The completed local improvement plan will identify the school and program to be reviewed, a statement of the problem to be addressed, specific action leading to program improvement, the dates for implementation of each strategy, and the name and position title of the individual responsible for ensuring that each strategy is implemented.

The OCTE's local plan application requires the LEAs to complete a section that mirrors the local improvement plan, and priority must be given to budgeting funds for program improvement. The local plan also includes narrative questions for use by all applicants that fail to meet established levels of performance, thereby integrating the local plan

with the state improvement plan and focusing the planning process on program improvement. Local plan applications contain assurances that recipients' programs are of sufficient size, scope, and quality to be effective. The local plan instructions and student reporting procedures identify CATE courses that are recognized as meeting the scope and quality requirements for funding. The OCTE's QRM evaluation process also provides guidance and the basis of an annual program review for school districts, high schools, and career centers.

The annual CATE progress report requires each LEA to identify the Perkins indicators not met, the progress made in meeting the applicable performance indicators, and the priorities for uses of the Perkins funds to improve local programs. The progress report collects information such as national/industry program certification, academic and CATE program integration, secondary-to-postsecondary program articulation and dual enrollment, and uses of the Perkins Title I funds for program improvement.

Each technical college will complete the annual program evaluation process for all degree, diploma, and certificate programs. This process is intended to strengthen the quality of higher education and to produce a continuous cycle of improvement in the technical colleges. Colleges will review productivity, job-market availability, and graduate placement for each program. If new technologies or changing economic conditions render a program obsolete, the program may be phased out. The colleges will reset priorities and reallocate resources to new or existing programs that best meet the needs of the employers and students they serve. The SCTCS and the SCDE will continue to work collaboratively with the CHE and other agencies to ensure the coordination and nonduplication of programs.

Accountability Forms and Requirements

South Carolina's secondary and postsecondary CATE student definitions, measurement definitions and approaches, and required baselines and performance levels for the Perkins IV core indicators of performance are included in Part C—Accountability Forms.

Technical Skill Assessments and Plans to Increase Coverage

At the end of the first semester of the 2006–07 school year, approximately 10 percent of CATE students in the Business, Management, and Administration and the Marketing, Sales, and Service career clusters pilot-tested voluntary, online end-of-course assessments developed by South Carolina teachers for twenty-nine CATE courses. The process was repeated at the end of second semester, with 8 percent of students participating. The OCTE will study the feasibility of using assessment items that might be combined for end-of-program assessments to measure student technical skill attainment in the two clusters. During the spring of the 2007–08 school year, three hundred health science technology completers will participate in the national cluster-level foundation assessment, which will be funded through a one-time grant. End-of-program assessments developed by the Center for Agricultural Research and Training, Inc. (CAERT) will be administered in the 2008–09 school year to students in the Agriculture, Food, and Natural Resources career cluster.

The state superintendent of education has directed the SCDE to develop formative and interim assessments that can be used by teachers for program/instructional improvement while decreasing assessments that offer little or no timely feedback, such as those assessments used solely for accountability. In developing or adopting assessments for CATE programs, the OCTE will need to ensure that any new

assessments used to measure student technical skill attainment can also be used by teachers to inform instruction. Currently in South Carolina, at least fifty industry-validated assessments are available; however, very limited numbers of secondary CATE students take the assessments—an estimated 10 percent. Few of these industry credentials or certifications cover the content of entire CATE programs, with some of the certifications measuring skills that might take only a week or two of classroom instruction and are, therefore, not appropriate as comprehensive measures of CATE skill attainment.

At the other end of the spectrum are state licensing exams such as those for cosmetology, emergency medical technician (first responder), and certified nursing aide, which are comprehensive measurements and are required for employment. The OCTE will collect data on completion of such licensing exams, though these data cannot, in every case, be reported in the school year in which the student takes his or her final CATE course. In the few cases where industry certification/credentialing is appropriate for secondary students and student-level results can be secured, South Carolina will continue to encourage student participation and will collect the certification results. Heretofore, LEAs have not been required to report on technical skill assessments taken by students; with the technical skill attainment reporting requirement, changes in the state's data collection system will be implemented. A tremendous challenge is determining state-level data system specifications, which must be finalized a full year before the updated system is usable by LEAs, while new assessments continue to be identified over the course of the five-year period covered by the State Plan.

Staff members in the OCTE have participated in monthly OVAE-sponsored conference calls with the technical skill attainment subgroup of the Next Steps Working Group. The work group has been gathering and disseminating information on student technical skill assessments and industry certifications/credentials in order to provide states with direction on how to proceed with measuring student technical skill attainment using valid and reliable assessments. The OCTE staff will continue to participate in the national efforts to gather information that will inform state-level decision-making. If valid and reliable career cluster foundation-level assessments are developed at the national level, South Carolina would consider adopting such assessments as the recommended method of meeting the technical skill attainment requirement, where industry certifications are not available or appropriate.

For the numerator of the secondary technical skill attainment measure, the OCTE will report concentrators who have completed a CATE program and who have passed technical skill assessments. The baseline for this measure was determined using Virginia's pass rates on individual certifications/credentials that are currently available in South Carolina: 8 percent of the concentrators taking technical skill assessments, increasing to 10 percent the second year and 25 percent the third year. Where no appropriate assessments are yet available, the numerator will include concentrators who complete CATE programs and achieve a final average GPA of at least 2.0 for CATE courses taken that year. The goal for the duration of the State Plan will be to continually report greater numbers of concentrators taking technical skill assessments while reporting fewer numbers of concentrators on the basis of their GPA.

South Carolina will continue gathering data in order to determine the quality and appropriateness of currently available and new assessments, the costs involved, and the potential for pooling resources with other states. Without the advent of free or minimally priced assessments developed nationally, secondary Perkins monies in South

Carolina would be insufficient to significantly increase student technical skill assessments. Although the OVAE does not recommend GPA as a viable method of measuring CATE student technical skill achievement, South Carolina contends that student grades, and subsequently GPA, are well-established measures of student achievement at the secondary level:

- GPA reflects grades in all high school courses that award Carnegie units of credit, including both academic and CATE courses.
- A student's GPA determines his or her class rank, which informs college admission, and GPA is a common factor in the awarding of financial aid and scholarships.
- With the implementation of South Carolina's first uniform grading policy in 1999, standardization eliminated various grading scales that heretofore were used in the state's schools.
- In 2007, through the urging of the South Carolina High School Redesign Commission and with increased opportunities for seamless education pathways as framed by the EEDA, scrutiny of GPA scaling for dual credit courses caused further reforms to be instituted to the uniform grading policy by the State Board of Education.
- The South Carolina Education Oversight Committee has approved student GPA for CATE courses as a measure of CATE skill proficiency on the high school and career center report cards used in the state's education accountability system.

A very small portion of postsecondary programs in South Carolina currently offer technical skills assessments such as state credentialing or licensing exams, typically used to control entry into a profession. Presently, there are twenty-six industry-validated assessments available that are applicable to the postsecondary degree, diploma, and certificate programs offered at the sixteen technical colleges. The majority of available assessments are administered within the Health Sciences cluster where licensure is required for employment. Currently, for programs where a technical skill assessment is available, an estimated 9.75 percent of students take the assessment. It should be noted that technical skills assessments are not required for any program's graduation prerequisites. Additionally, for many of the available assessments, the licensing or credentialing agencies do not provide the postsecondary institutions with the disaggregated student information (i.e., gender, ethnicity) that is needed for Perkins reporting. As a result, postsecondary is limited to reporting data on a small fraction of the assessments for indicator 1P1 (technical skill attainment).

Nevertheless, the postsecondary institutions have several local initiatives in place to increase the number of technical skills assessments offered as well as the number of students who take them. The technical colleges are still in the preliminary stages of identification and planning for these assessments, with some colleges further along in the process than others. The SCTCS plans to facilitate discussions among the sixteen colleges in an effort to initiate a joint venture to create statewide assessments for each program area, but contends that this will be an enormous multi-year development project.

In the interim, the SCTCS will develop a phase-in plan to increase the number of available assessments and the number of students who take them. The Health Sciences career cluster would be appropriate as an initial area of focus due to the

Allied Health Care initiative to expand and enhance the state's health care workforce and address widespread shortages in nursing and other health professions. At the end of the 2005–06 academic year, twelve of the sixteen colleges reported that an estimated 7.4 percent of students pursuing an Associate Degree of Nursing within the Health Sciences cluster completed technical assessments. For the 2006–07 program year, the SCTCS expects that at least 10 percent of Nursing students in fourteen of the sixteen colleges will complete technical assessments.

The SCTCS staff will make a concerted effort to develop agreements with third-party agencies to gain access to disaggregated student data for additional assessments to be reported in subsequent years. At the end of the 2007–08 program year, the colleges will include an additional report of the Practical Nursing Program pass rates on the National Council Licensure Exam assessments. For the remaining grant period, the SCTCS will work diligently to report additional assessments in programs such as radiography, medical laboratory technician, and respiratory therapy.

V. TECH PREP PROGRAMS

South Carolina will consolidate all of the funds received under Perkins IV, Section 201, with funds received under Section 111 in order to carry out the Title I activities described in the State Plan. The state's sixteen education and business alliances (tech prep consortia) ceased to operate under Perkins Title II funding beginning with the 2007–08 school year. The data reporting requirements outlined in Perkins IV could not be managed at the postsecondary level in a manner that would enable the consortia to collect and report data as required under Title II of the new legislation.

School district superintendents and technical college presidents have been specifically apprised of the Perkins IV provision allowing eligible recipients to pool a portion of the local funds for innovative activities. The examples of permissible uses of these funds under Section 135 of the new law are similar to activities and services previously provided by the consortia. Seven of the original sixteen tech prep/school-to-work alliances will continue to deliver services under alliance agreements using the Title I option. Specific details relative to that option and the innovative component requirements have been shared with consortia partnerships, district superintendents, and technical college presidents. South Carolina is supporting these alliance efforts and other Perkins IV initiatives by providing regional career specialists aligned with the regions established under the WIA. Examples of activities supported by these regional career specialists include organizational support and delivery of contextual methodology training and support for the clusters of study and cluster majors implemented in high schools across the state.

VI. FINANCIAL REQUIREMENTS

Note for the State Board of Education: The information included in this section and in Part B—Budget Forms is based on the estimated state allocation for 2008–09. The budget must be revised if the actual federal allocation differs from the estimate. The budget forms must be submitted annually to reflect the authorized state allocation for each year covered under the State Plan. The State Board authorizes the SCDE to revise or update the budget on the basis of the actual allocation received from the U.S. Department of Education.

Within State Allocation—Title I

South Carolina will allocate the Perkins Title I funds as follows: 10 percent for state leadership, 5 percent for state administration, and 85 percent for local secondary and postsecondary eligible recipients. The local allocation among secondary and postsecondary eligible recipients will continue with 70 percent for secondary programs and 30 percent for postsecondary programs. This division of the funds is determined on the basis of enrollment in CATE courses. All Perkins Title II funds will be consolidated with the Title I funds and allocated under the Title I process.

Distribution of Funds for Secondary Education Programs

South Carolina will distribute funds for secondary CATE programs on the basis of the allocation formula outlined in Section 131(a) of Perkins IV. Data are adjusted to reflect changes in school district boundaries and for LEAs without geographical boundaries, as required, by obtaining attendance and poverty data directly from the affected districts. South Carolina does not use an alternative formula. Any secondary eligible recipient that receives less than the minimum allocation will have to enter into a consortium or will be considered for a waiver in accordance with Section 131(c). Allocations will be made in accordance with Section 131(e) to multidistrict career centers that form a consortium with feeder school districts for the purpose of receiving funds under this section. Attachment F includes the allocations for the secondary eligible recipients.

Distribution of Funds for Postsecondary Education Programs

South Carolina will distribute funds for postsecondary programs on the basis of the allocation formula outlined in Section 132(a)(2) of Perkins IV. The state does not have postsecondary consortia or the requirements for an alternative formula. No postsecondary recipients will receive less than the minimum allocation under this section. Attachment G includes the allocations for the postsecondary eligible recipients.

Allocation of Funds for Secondary or Postsecondary Consortia

South Carolina will not allocate Perkins Title I funds directly to consortia. Funds allocated to eligible recipients under Section 131 or 132 may be pooled with funds provided by one or more other eligible recipients and used for innovative initiatives. The SCDE has added this new permissible use of funds to the financial accounting system to determine the extent that consortia are formed and funding is used in this manner. The OCTE's local plan instructions include guidance on the eligibility of consortium members, allowable uses of funds, and reporting requirements. The local plan application requires a detailed description for the uses of the pooled funds and how these funds will improve student performance. The OCTE requires information on the uses of these funds to be reported in the CATE progress reports. The OCTE will

collaborate with the SCTCS on the procedures to be used for postsecondary recipients that pool their funds for innovative initiatives.

Detailed Project Budget

A detailed project budget is included in Part B—Budget Forms. No allocations will be made to secondary or postsecondary consortia from funds under Section 112(a) and (c).

Secondary and Postsecondary Allocation Formulas

The allocations to the secondary eligible recipients identified in Attachment F are based on the formula described in Perkins IV, Section 131(a). Thirty percent of the funding is allocated to the LEAs in proportion to the number of individuals aged five through seventeen, inclusive, who reside in the school district served by such LEA for the preceding fiscal year compared to the total number of such individuals who reside in the school districts served by all LEAs in the state for the preceding fiscal year, as determined by the most recent census data. Seventy percent of the funding is allocated to the LEAs in proportion to the number of individuals aged five through seventeen, inclusive, who reside in the school district served by the LEA and are from families below the poverty level for the preceding fiscal year, as determined on the basis of the most recent data used under Section 1124(c)(1)(A) of the Elementary and Secondary Education Act of 1965, compared to the total number of such individuals who reside in the school districts served by all the LEAs in the state for the preceding fiscal year.

The allocations to the postsecondary eligible recipients identified in Attachment G are based on the formula described in Perkins IV, Section 132. The proportionate share for each institution is based on the sum of the number of individuals who are federal Pell Grant recipients and recipients of assistance from the Bureau of Indian Affairs enrolled in programs meeting the requirements of Section 135 offered by the institution in the preceding fiscal year compared to the sum of the number of such recipients enrolled in such programs within the state for the preceding fiscal year.

Use of Reserve Funds

South Carolina plans to fully fund and use reserve funds as an incentive to increase secondary CATE completers. The Perkins allocation formula for secondary recipients currently offers no incentive to expand participation in and completion of CATE programs. LEAs and multidistrict career centers that meet the requirements of Section 112(c) will be eligible to receive reserve funds. These funds will be allocated on the basis of the number of CATE completers reported by the LEA or multidistrict career center in proportion to the statewide total of secondary CATE completers reported for the previous year.

South Carolina also plans to use reserve funds to pilot and implement new high-technology CATE courses and programs. The OCTE will identify eligible programs and the maximum amount to be awarded. Applicants must describe how the CATE course/program will be implemented within the grant period, and they must agree to sustain the course/program beyond the grant period. OCTE program staff members who coordinate the selected program areas will develop the grant award guidelines, assurances, and allowable and unallowable uses of funds. All grant recipients must meet the requirements of Section 112(c).

Procedures Required for Granting a Rural Waiver

South Carolina does not anticipate the need to grant a rural waiver under Section 131(c)(2) or 132(a)(4). Districts must be at least 30 percent rural as determined by the latest edition of *Rankings of the Counties and School Districts of S.C.* to qualify for a rural waiver from the SCDE. No postsecondary recipients receive less than \$50,000 in funding.

PART A: SECTION VII

South Carolina

Certifications

Assurances

Required Forms

EDGAR Certifications

In compliance with the Carl D. Perkins Career and Technical Education Act of 2006 and the Education Division General Administrative Regulations (EDGAR), the State Board of Education certifies that

1. The State Board of Education in South Carolina is eligible to submit the South Carolina Five-Year Plan—July 1, 2008–June 30, 2013 (State Plan).
2. The South Carolina Department of Education has authority under the Code of Laws of South Carolina, 1976, to perform the functions of the State under the program.
3. The State legally may carry out each provision of the State Plan.
4. All provisions of the State Plan are consistent with state law.
5. The State Treasurer of South Carolina has authority under state law to receive, hold, and disburse funds made available under the State Plan.
6. The Director of the Office of Career and Technology Education, South Carolina Department of Education, has the authority to submit the State Plan.
7. The State Board of Education has adopted and formally approved the State Plan.
8. The State Plan is the basis for state operation and administration of the program.

Signed Assurances and Required Forms

In compliance with the Carl D. Perkins Career and Technical Education Act of 2006, as the duly authorized representative of the State Board of Education, I certify that

1. The State Plan is not required to be submitted to the state office responsible for the State Intergovernmental Review Process established by Executive Order 12372, according to the list of required documents compiled by that agency.
2. A completed and signed U.S. Department of Education Form 80-0013 for Certification Regarding Lobbying will be provided.
3. A completed and signed Standard Form 424B for Assurances for Non-Construction will be provided.
4. The State will comply with the requirements of the Act and the provisions of the State Plan, including the provision of a financial audit of funds received under the Act that may be included as part of an audit of other federal or state programs.
5. None of the funds expended under the Act will be used to acquire equipment (including computer software) in any instance in which such acquisition results in a direct financial benefit to any organization representing the interests of the acquiring entity or the employees of the acquiring entity, or any affiliate of such an organization.
6. The State will waive the minimum allocation as required in Section 131(c)(1) in any case in which the local educational agency is located in a rural, sparsely populated area **or** is a public charter school operating secondary school career and technical education programs **and** demonstrates that it is unable to enter into a consortium for purposes of providing services under the Act.

7. The State will provide, from non-federal sources, for the costs the eligible agency incurs for the administration of programs under this Act, an amount that is not less than the amount provided by the eligible agency from non-federal sources for such costs for the preceding fiscal year.
8. The State and eligible recipients that use funds under this Act for in-service and pre-service career and technical education professional development programs for career and technical education teachers, administrators, and other personnel shall, to the extent practicable, upon written request, permit the participation in such programs of career and technical education secondary school teachers, administrators, and other personnel in nonprofit private schools offering career and technical secondary education programs located in the geographical area served by such eligible agency or eligible recipient.
9. Except as prohibited by State or local law, an eligible recipient may, upon written request, use funds made available under this Act to provide for the meaningful participation, in career and technical education programs and activities receiving funds under this Act, of secondary school students attending nonprofit private schools who reside in the geographical area served by the eligible recipient.
10. Eligible recipients that receive an allotment under this Act will consult, upon written request, in a timely and meaningful manner with representatives of nonprofit private schools in the geographical area served by the eligible recipient regarding the meaningful participation, in career and technical education programs and activities receiving funding under this Act, of secondary students attending nonprofit private schools.



SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

3-31-08

DATE

Jim Rex, State Superintendent of Education

CERTIFICATION REGARDING LOBBYING

Applicants must review the requirements for certification regarding lobbying included in the regulations cited below before completing this form. Applicants must sign this form to comply with the certification requirements under 34 CFR Part 82, "New Restrictions on Lobbying." This certification is a material representation of fact upon which the Department of Education relies when it makes a grant or enters into a cooperative agreement.


As required by Section 1352, Title 31 of the U.S. Code, and implemented at 34 CFR Part 82, for persons entering into a Federal contract, grant or cooperative agreement over \$100,000, as defined at 34 CFR Part 82, Sections 82.105 and 82.110, the applicant certifies that:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the making of any Federal grant, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal grant or cooperative agreement;

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;

(c) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants and contracts under grants and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above certification.

NAME OF APPLICANT South Carolina Department of Education	PR/AWARD NUMBER AND / OR PROJECT NAME Carl D. Perkins Career and Technical Education Act of 2006 -State Grant
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE Jim Rex, State Superintendent of Education	
SIGNATURE 	DATE 3-31-08

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503

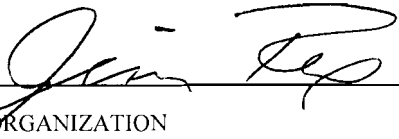
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management, and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874) and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1721 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, AAudits of States, Local Governments, and Non-Profit Organizations.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE	
Jim Rex 		State Superintendent of Education	
APPLICANT ORGANIZATION		DATE SUBMITTED	
South Carolina Department of Education		3-31-08	

PART B: BUDGET FORMS

South Carolina

PERKINS IV BUDGET TABLE - PROGRAM YEAR 2
 (For Federal Funds to Become Available Beginning on July 1, 2008)

I. TITLE I: CAREER AND TECHNICAL EDUCATION ASSISTANCE TO STATES

A. Total Title I Allocation to the State	<u>\$18,890,827</u>
B. Amount of Title II Tech Prep Funds to Be Consolidated with Title I Funds	<u>\$ 1,730,084</u>
C. Total Amount of Combined Title I and Title II Funds to be distributed under section 112 (<i>Line A + Line B</i>)	<u>\$20,620,911</u>
D. Local Formula Distribution (<i>not less than 85%</i>) (<i>Line C x 85%</i>)	<u>\$17,527,774</u>
1. Reserve (<i>not more than 10% of Line D</i>)	<u>\$ 1,752,777</u>
a. Secondary Programs (100% of <i>Line D</i>)	<u>\$ 1,752,777</u>
b. Postsecondary Programs (0% of <i>Line D</i>)	<u>\$ 0</u>
2. Available for formula allocations (<i>Line D minus Line D.1</i>)	<u>\$15,774,997</u>
a. Secondary Programs (70% of <i>Line D.2</i>)	<u>\$11,042,498</u>
b. Postsecondary Programs (30% of <i>Line D.2</i>)	<u>\$ 4,732,499</u>
E. State Leadership (not more than 10%) (<i>Line C x 10%</i>)	<u>\$ 2,062,091</u>
1. Nontraditional Training and Employment (<u>\$60,000</u>)	
2. Corrections or Institutions (<u>\$1</u>)	
F. State Administration (not more than 5%) (<i>Line C x 5%</i>)	<u>\$ 1,031,046</u>
G. State Match (<i>from non-federal funds</i>) ¹	<u>\$ 1,031,046</u>

¹ The eligible agency must provide non-Federal funds for State administration of its Title I grant in an amount not less than the amount it provided in the preceding year.

PERKINS IV BUDGET TABLE - PROGRAM YEAR 2
(For Federal Funds to Become Available Beginning on July 1, 2008)

II. TITLE II: TECH PREP PROGRAMS

A. Total Title II Allocation to the State	\$ <u>1,730,084</u>
B. Amount of Title II Tech Prep Funds to Be Consolidated with Title I Funds	\$ <u>1,730,084</u>
C. Amount of Title II Funds to Be Made Available For Tech-Prep (<i>Line A less Line B</i>)	\$ <u>0</u>
D. Tech-Prep Funds Earmarked for Consortia	\$ <u>0</u>
1. Percent for Consortia (<i>Line D divided by Line C</i>) [0%]	
2. Number of Consortia <u> 0</u>	
3. Method of Distribution (<i>check one</i>):	
a. <u> </u> Formula	
b. <u> </u> Competitive	
E. Tech-Prep Administration	\$ <u>0</u>
1. Percent for Administration (<i>Line E divided by Line C</i>) [0%]	