CONSOLIDATED ANNUAL REPORT (CAR)

For the CARL D. PERKINS CAREER AND TECHNICAL EDUCATION ACT OF 2006

North Carolina

2010-2011

Combined Submission: Secondary and Postsecondary

1. State Leadership

North Carolina has performed multiple activities utilizing State Leadership Funds and addressing each of the nine Required Uses of Funds as required by Section 124(b) of Perkins IV. The following are the major activities undertaken during 2010-2011. Please note, **North Carolina meets Required Use of Funds #7 through a direct allocation to the North Carolina Department of Juvenile Justice and Delinquency Prevention**.

Secondary

PA Development of Secondary Career and Technical Education (CTE) Curriculum

Curriculum efforts for 2010-2011 centered on three areas:

1. **Development of the CTE Standard Course of Study.** Work continued on the Standard Course of Study, which was approved by the state Board of Education in June 2011. The document, referred to as the 2012 Essential Standards, includes courses aligned to the 16 Career Clusters. Input and feedback were provided by teachers, education administrators and support personnel, community college and university faculty, representatives of business and industry, and other stakeholders. The new document will go into effect in July 2012.
2. **Development of curriculum products.** During 2010-2011, secondary CTE continued its focus on improving curriculum. Working with Dr. Lorin W. Anderson, principal author and editor of *A Taxonomy for Learning, Teaching, and Assessing*, state staff used Revised Bloom's Taxonomy (RBT) to work with teachers, community college and university faculty, and working professionals to develop standards, related curriculum products, and aligned assessments for courses released in Summer 2011. Work was done on additional courses that are scheduled for future release.

   Curriculum developed using this process is designed to meet the needs of new teachers, particularly teachers coming directly to the profession from business and industry. A professional development plan guides the training that accompanies release of each new curriculum product. Extensive training for teachers and other users was conducted at the

annual North Carolina Career and Technical Education Summer Conference. This training included instruction on how to use the RBT curriculum, technical updating of content, and information on best instructional practices. Additional training was provided to CTE Administrators and eligible agency personnel who work with teachers to improve the use of curriculum and instructional practices.

3. **Partnerships**. North Carolina continues to develop and improve upon partnerships that provide enhanced curriculum and opportunities for student and teacher credentialing in high-wage, high-skill, high-demand areas.

    a. **Microsoft Information Technology (IT) Academy**: The Academy was launched as a pilot in Fall 2010 and a full-scale field test in Spring 2011. Students enrolled in the Academy received instruction in Microsoft applications including Word, Publisher, PowerPoint, Excel and Access. A companion partnership with Certiport allows students to earn specific entry-level certifications that they can take directly to the workplace or on to further education. Students earned 8,944 Microsoft Office Specialist certifications in 2010-2011. Microsoft Office programs are widely used in business and industry, and individuals who have earned certifications are in high demand. The IT Academy also has a strong professional development component that will help teachers improve their own computer skills as they work with students.

    b. **Project Management**: NCDPI is working with the Southern Regional Education Board to develop a four-course sequence in Project Management. This sequence is designed to integrate essential skills from language arts and mathematics and to prepare students for initial Project Manager certification. This project, which is being directed by Dr. Lorin W. Anderson, will be disseminated through the SREB and will serve as a national model for curriculum development. The team started work in 2009-2010 and the first course will be piloted in 2011-2012.

    c. **Essential standards for adapted/adopted curriculum**. NCDPI works with third-party vendors including industry organizations, non-profits, and commercial publishers to identify curriculum products appropriate for use in North Carolina. There are two different routes for these products, adoption and adaptation.

        In some cases, North Carolina “adopts” a curriculum package. The vendor is responsible for developing standards, providing aligned curriculum materials, and developing or identifying accountability measures such as multiple-choice tests, performance-based assessments, and certifications. An example of an adopted curriculum is SAS Programming I and II. This curriculum, which includes aligned professional development, multiple-choice assessments for accountability, and links to optional credentials, is developed as a package by SAS Institute and is made available to LEAs at a nominal cost.

        In other cases, the state adapts curriculum materials. Standards are developed using a formal procedure (see Section SA.2 above) and curriculum products are identified that align to the standards. Local school systems select the vendor from among those

identified that they believe best meets their needs. A standard accountability assessment is created or identified, which provides consistent accountability information regardless of which vendor's curriculum is in use. An example of this arrangement is Computer Engineering Technology I and II. The state developed standards for these courses but local school systems can choose from curriculum products offered by multiple vendors.

d. **North Carolina Virtual Public School (NCVPS)**. NCVPS is the official online content provider for North Carolina students. North Carolina CTE works with NCVPS to identify CTE courses that would be appropriate for online instruction. NCVPS teams adapt the CTE course for online delivery. NCVPS trains instructors, publicizes the course, handles enrollment, and oversees the delivery of instruction. NCVPS collaborates with local schools to provide for the administration of Technical Skill Assessments. Results are used for accountability and by NCVPS administrators working with instructors to improve outcomes.

Required Uses of Funds: **1, 2, 3, 4**, **5**, **6**, **8,** and **9**
Permissible Uses of Funds: **1, 2, 3, 6, 7, 9 14**, and **16**

SB Professional Development

Professional development offered in 2010-2011 included a wide range of activities for CTE teachers and administrators and other educators as appropriate using both traditional face-to-face and online formats. Face-to-face workshops included the annual Career and Technical Education Summer Conference, which provided technical updates and introduction to new curriculum for about 2,600 participants. In addition, state staff led a number of sessions across North Carolina for participants who need training best provided in a hands-on, face-to-face environment.

The move to more online training was driven by the need to reach as many participants as possible in an efficient and cost-effective manner. Staff used a variety of formats during instruction, including sessions that allowed participants to take part from their own workstations or in regional meetings as well as asynchronous presentations and training that users could take advantage of as needed. Evaluations suggest that having online formats available has made the training more accessible without hurting its effectiveness.

Professional development focused on topics including the following:
1. Elements, North Carolina CTE Instructional Management System
2. Implementation of Career Clusters
3. Technical updates for credentials
4. Introduction to use of new curriculum products
5. Integration of language arts and mathematics into CTE
6. Use of data to improve instruction
7. Working with special populations and nontraditional students

Online Professional Learning Communities have been established for teachers, support staff, and administrators to share information and work together to develop strategies to improve

student learning. The PLCs are housed at Learn NC, an online education resource of the University of North Carolina at Chapel Hill. Curriculum is distributed via the PLCs. Each program area has its own PLC, and specialized PLCs are available for teachers with particular interest in certain courses. Pilot courses also have separate PLCs, which both allows teachers to easily access curriculum materials and other information and provides structured feedback to CTE staff working in development of the course.

Required Uses of Funds: **1, 2, 3, 4**, **5**, **6**, **8,** and **9**
Permissible Uses of Funds: **1, 5, 7, 9, 11, 15**, and **17**

SC Services to Nontraditional Students

To address the two Perkins nontraditional Performance Indicators, North Carolina CTE continued implementation of the National Alliance for Partnerships in Equity (NAPE) "Guide for Program Improvement for Perkins IV: Nontraditional CTE Program Participation and Completion." NCDPI provided technical assistance to individual LEAs to implement the NAPE 5 Step program to identify, by gender, which students are taking (or not taking) courses that lead to nontraditional occupations, and to expand data research to include "underrepresented" student demographics. Once the data review is completed, LEAs identify possible root causes of the lack of nontraditional students participating in one or more nontraditional courses and how to improve.

In 2010-2011, CTE continued its collaborative initiative with the NC State University Engineering Department and Women in Science and Engineering (WISE) to develop Science, Technology, Engineering and Math (STEM) projects. These projects use Engineering is Elementary (EIE), Project Lead the Way, or other engineering curricula for linkage so that all students have the opportunity for K-12 exposure to an engineering design model curriculum. Additionally, the collaborative initiative provides opportunities for more female and underrepresented students to explore the STEM pipeline at an earlier age, thereby increasing the student knowledge and interest in STEM-related courses, which may lead to nontraditional occupations.

CTE staff presented at several statewide conferences on "Perkins IV and Five Step Program for Special Populations," and "Understanding Equity and Diversity." CTE also developed booklets and brochures as well as PowerPoint presentations for Training on Harassment and Bullying Prevention, believing that harassment and bullying contribute to nontraditional students not enrolling or declining to continue in nontraditional courses.

Required Uses of Funds: **2, 3, 5, 6, 8**, and **9**
Permissible Uses of Funds: **1, 4, 15,** and **17**

SD Focus on Twenty-First Century Technologies

North Carolina is working continuously to utilize Twenty-First Century technologies in instruction and administration to take advantage of improvements in functionality and operational efficiencies. In 2010-2011, these efforts focused in three areas:

1. **Computerized Instructional Management System.** North Carolina CTE's Instructional Management System, Elements™, was expanded statewide. This web-based application produced by Thinkgate, LLC, fully integrates the instructional management system with NC WISE, the state's student information management system. Use of the system allows the state to push information directly to teachers, to streamline data collection, to eliminate significant amounts of time and resources spent in transfer of information to paper forms and manual electronic transmittal of files, and to improve data quality. Priorities for 2011-2012 include expanding the system to include student credentialing, adding courses and programs, and revising reports to make them more usable and useful to teachers, administrators, parents, and other stakeholders.
2. **CTE Analysis and Reporting System (A&RS).** The Analysis and Reporting System is a web-based application that analyzes CTE data, creates reports for local and state use, and generates reports required under federal accountability guidelines. The system collects CTE enrollment data, matches it to performance data from CTE and the Division of Accountability, and links that to information about students' classification in special populations from authoritative sources. Reports, available via the Internet, allow stakeholders to access information needed for strategic planning and planning for instructional improvements. The application was released statewide in Fall 2010. Functionality continues to be expanded to take advantage of improvements in technology and to provide additional information needed by users.
3. **Other state initiatives.** CTE worked with other NCDPI areas in initiatives such as the following:
    a. **Race to the Top.** CTE worked closely with DPI staff as they designed the Instructional Improvement System (IIS) that is a major component of the state's Race to the Top initiative. The IIS will combine many of the features that are already part of the CTE Instructional Management System with expanded curriculum and instructional materials to ensure equity of access and allow users to isolate individual student performance and target resources for improvement. An RFP is currently under development and is scheduled for release in 2011-2012.
    b. **North Carolina Common Educational Data Analysis and Reporting System (CEDARS).** CTE staff members were involved in development of CEDARS, a longitudinal K-12 data system that integrates information from authoritative sources throughout the agency, including CTE. CEDARS provides transparent and easy access to current and historical data to generate reports required for federal accountability under the Elementary and Secondary Education Act, the Carl D.

Perkins Career and Technical Education Act, and other legislation. It will provide for efficient collection and analysis of data throughout the system. CTE data are scheduled for import beginning in Fall 2011.

Required Uses of Funds: **1, 2, 3, 4, 5, 6, 7,** and **9**
Permissible Uses of Funds: **1, 3, 8, 9, 15,** and **16**

SE Assistance to Districts and Schools

North Carolina CTE worked closely with statewide school improvement initiatives including District and School Transformation, a state-directed project to focus attention and resources on schools with the greatest opportunity for growth, based primarily on Elementary and Secondary Education Act (ESEA) standards and measures. Regional-based CTE staff worked with targeted organizations to integrate CTE data into the planning process and CTE resources into the solutions. Consultant staff provided focused professional development to targeted school systems.

In 2010-2011, CTE initiated a three-tier monitoring program of Local Education Agency compliance with state and federal requirements. The first tier is the continuous monitoring conducted by all staff including monitoring of the CTE Local Plan, CTE state and federal local budgets, and scope and sequence of courses offered in a program of study by individual school districts. The second tier consists of on-site monitoring that includes analysis of fiscal activity, CTE programming, personnel licensure and school/classroom visits to a representative sample of classrooms in each district. Tier two monitoring is in alignment with the Assurances outlined in the North Carolina CTE Local Plan. The on-site monitoring is scheduled to provide a monitoring visit to each school district (115 LEAs in NC) during a six-year period (in alignment with the life of Perkins IV). This equates to 18 to 20 LEA on-site monitoring visits annually. The third tier of monitoring is based on identified need. Should other monitoring and/or technical assistance activities reveal that an investigation of a non-compliance issue is warranted, CTE staff will conduct an investigation/monitoring visit to the identified LEA.

CTE continues to work with other statewide initiatives that focus on improvement of students' competency in mathematics and language arts and in increasing the graduation rate, including ongoing development of resource materials aligned to the Future Ready Core graduation standards, Common Core State Standards, development of a new statewide accountability model, and strengthening of mathematics and language arts content and instruction in CTE classes.

Required Uses of Funds: **1, 2, 3, 4, 5, 6, 8**, and **9**
Permissible Uses of Funds: **1, 3, 8, 9, 15,** and **16**

Postsecondary

PA **Code Green Super CIP—**part of the statewide, multidisciplinary curriculum improvement project designed to integrate "sustainability" concepts into CTE curricula, redesign and streamline curricula by identifying common core components and offering them as pathways that lead to more specialized credentials, and eliminating duplicative offerings.

Required Uses of Funds: **1, 2, 3, 4**, **5**, **8,** and **9**
Permissible Uses of Funds: **3**, **6**, and **9**

PB **North Carolina Career Clusters Guide—**a guide to career planning and career opportunities, based on the 16 career clusters, was developed. Copies were distributed to community colleges as a resource. Presentations were made to assist student services/counseling staff in the best practices for utilizing the publication for students and displaced workers.

Required Uses of Funds: **4**, **5**, **6**, and **8**
Permissible Uses of Funds: **1**, **9**, **13**, and **17**

PC **North Carolina Automotive Dealers Association (NCADA)—**a partnership between NCADA, the North Carolina Department of Public Instruction (NCDPI), and the North Carolina Community College System (NCCCS) that assists students to progress seamlessly into the automotive fields trained to industry standard with up-to-date equipment. The partnership also assists automotive programs by assisting faculty with industry-supported professional development opportunities.

Required Uses of Funds: **2**, **4**, and **6**
Permissible Uses of Funds: **6**, **8**, and **16**

PD **Today's Class: Online Automotive Instruction**—provides interactive online automotive training aligned with standardized outcome assessment tools and provides a verifiable time-tracking component, which is a requirement for automotive instructors in National Automotive Teachers Educational Foundation (NATEF) certified educational programs. The current professional development requirement for auto instructors is 20 hours of training per year. Instructors also use it as a course management tool that can be used to track student progress using assessment tools that align with standardized automotive curriculum competencies.

Required Uses of Funds: **1**, **2**, and **3**
Permissible Uses of Funds: **14** and **16**

PE **Support and Expansion of the North Carolina Network for Excellence in Teaching (NC-NET)—** online access to quality professional development for NCCCS CTE faculty. Now in its sixth year of existence, NC-NET offers online courses and tutorials, planning tools, databases, resource exchange, and a discussion room. Resources are organized into five areas: Teaching and Learning, Discipline-Specific, Career and Personal Development, Technology in the Classroom,

and Online Teaching. In 2008-2009 three regional centers were supported and numerous modules were added.

Required Uses of Funds: **1**, **3**, **4**, **5**, and **8**
Permissible Uses of Funds: **1**, **8**, **9**, **14**, and **16**

PF **Centers for Teaching Excellence—**three centers continued to assist in encouraging faculty and staff to participate in NC-NET activities, host workshops in their regions, and mentor other colleges in the area of professional development for CTE instructors. The three centers are strategically located across the state with each center specializing in Technology Resources, Discipline Specific Resources, or Teaching and Learning, and Career and Personal Development.

Required Uses of Funds: **1**, **3**, **4**, and **9**
Permissible Uses of Funds: **9**, **14**, and **16**

PG **Career Counseling Information (Nontraditional)—**each college received publications, written specifically for North Carolina, that assist in guiding students' career choices. The document was designed to be a resource for students and their parents to show that success in careers, typically stereotyped for one gender, can be achieved by any student who follows the appropriate course of study. Each of the careers highlighted is CTE and specifically encouraged nontraditional participation.

Required Uses of Funds: **3** and **5**
Permissible Uses of Funds: **1**, **13**, and **17**

PH **Professional Development Activities**—opportunities for NCCCS CTE faculty, staff, and counselors to improve teaching skills and remain current with the needs, expectations, and methods of industry. Projects included the following.

- **Empowering Career Technical Education Students to Success** – Increase the college's "culture of success" by empowering CTE instructors to create learner-centered classrooms, increasing instructor and curriculum efficacy by using best practices integrated into curriculum content.
- **Updating Curriculum Support to Learning** – Promoting student learning, including fundamental aspects of teaching and learning such as understanding Bloom's Taxonomy and how it should be used to develop objectives; how to develop assessments at the level of the objectives; how to assure assessments confirm learning and are related to the course objectives.
- **Incorporating Green Strategies into Business Curriculum** – Incorporating green business strategies and technology into the business curriculum to create future business leaders who promote more sustainable practice.
- **Developing Learning Objects: Train the Trainer** – Developing a train-the-trainer program for establishing local trainers in the development, support, and promotion of learning objects to further engage the student in active learning.

- **Contextual Teaching and Learning: Linking Applied and College Transfer Courses through Interdisciplinary Projects** – Developing an online course designed to improve the quality of CTE teachers and other faculty who use interdisciplinary projects and problem-based learning in their courses to help students see connections between their learning outcomes in transfer and applied courses.
- **Mathematics Across the Community College Curriculum** – Developing learning objects that will aid students to develop greater math literacy and competency by integrating math concepts into non-math courses.
- **Course Development for Moodle Instructors** – Developing a train-the-trainer course in online instructional design and Moodle course development.
- **Equipping Faculty for Highly Effective Online Instruction** – Developing training for CTE instructors to become successful and engaging online instructors by using the necessary skills of effective online teachers.
- **SPARK: Syllabus Preparation And Required Knowledge** – Developing a professional development course that teaches all aspects of developing a syllabus as a foundation for teaching and course management.

Required Uses of Funds: **2**, **3**, **4**, **8**, and **9**
Permissible Uses of Funds: **1, 8**, **9**, **14**, and **17**

2. Progress in Developing and Implementing Technical Skill Assessments

Secondary

Technical Skills Assessments are offered in all eight program areas in North Carolina: Agricultural Education, Business and Information Technology Education, Career Development, Family and Consummer Sciences Education, Health Occupations Education, Marketing Education, Technology Education, and Trade and Industrial Education.

1. **Statewide postassessments:** North Carolina utilizes a system of statewide postassessments to measure technical skills attainment at the secondary level. These postassessments are developed at the state level and assessments and/or essential standards are validated by business and industry. During 2010-2011, 88.1 percent of eligible participants enrolled in a course for which a state-developed postassessment was available were tested. Students who take an alternate assessment based on their Individualized Education Plan or LEP Plan are excluded from this calculation.
2. **Other Technical Skills Assessments:** A significant percentage of CTE participants are enrolled in courses for which no statewide postassessment is available. Many of these courses use either attainment of industry-recognized certifications or performance on third-party assessments as their measure of technical skill attainment. North Carolina continues to make progress on the collection of results by student on these assessments.
    a. During 2010-2011, CTE initiated a process for collecting student results on industry-recognized certifications using the Analysis and Reporting System. This collection reported that nearly 25,000 credentials were earned by NC students during 2010-2011. This process, while successful, does not provide collection of student-level data, which makes it impractical for use in Perkins' reporting. A companion project was developed using Elements, the CTE Instructional Management System. This process does collect student-level data and is scheduled for release in 2011-2012.
    b. Results on selected third-party assessments were collected during 2010-2011 using Elements. These results were used to test the process and to set performance benchmarks. It is anticipated that selected third-party results will be included in Perkins reporting beginning in 2011-2012.

Postsecondary

NCCCS collects data pertaining to technical skill assessments for 23 licenses required by state statute for an individual to work in that occupation and for certifications, generally voluntary but that may be required by employers or an outside accrediting agency. The number of test-takers and the number passing are reported by the agencies issuing the license or exam and are validated by the colleges. Purely voluntary examinations are not reported.

The program areas for which technical skill assessment are available include the following.

Aviation--General
Aviation--Airframe
Aviation--Power
Basic Law Enforcement Training

Real Estate Sales
Cosmetic Arts--Apprentice
Cosmetic Arts--Cosmetology
Cosmetic Arts--Esthetician
Cosmetic Arts--Instructor
Cosmetic Arts--Manicurist
Dental Hygiene
Opticianry
Nuclear Medical Technology
Radiation Therapy
Radiography
Physical Therapy
Practical Nursing
Registered Nursing
Veterinary Medical Technology
Emergency Medical Dispatcher
Emergency Medical Technician
Emergency Medical Technician--Intermediate
Emergency Medical Technician--Paramedic

The estimated percentage of CTE concentrators who participated in a technical skill assessment is 11.78 percent. Duplicated counts and non-curriculum students are reported within these percentages. Only first-time test takers are tracked and at colleges with less than 10 students participating in a particular Technical Skill Assessment passing rates are not reported to ensure student privacy.

Progress regarding the plan and timeframe to increase the number of Technical Skill Assessments is dependent on external credentialing services making usable data available to the State. Because of the inability to unduplicate or receive additional information, GPA continues to be used as the measure of technical skill attainment. By using this method, all relevant CTE students are included in this indicator with an accurate and nearly universally accepted measure.

3. Implementation of State Program Improvement Plans

Secondary

In spite of significant improvements over 2009-2010, in 2010-2011 North Carolina again failed to meet at least 90 percent of the agreed upon state adjusted level of performance for 1S2 Academic Attainment – Mathematics. This indicator shows the performance of CTE concentrators on the examination used by North Carolina to report high school mathematics proficiency. The exam is usually taken at the ninth or tenth grade, which makes it an imperfect measure of the impact on CTE on academic attainment. The following information provides details about this indicator, including performance of subgroups, highlighting those with significant gaps between expected and actual performance, action steps, responsible staff for implementing action steps, and the timeline for their implementation.

Table I shows preliminary performance data overall and by each subgroup on the Academic Attainment – Mathematics measure. (Final results will be released via EdFACTS.) Groups highlighted in yellow failed to attain at least 90 percent of the performance target. The "Actual" column shows the actual 2010-2011 performance. "Gap" indicates the difference between the target and actual performance. (A negative number means the actual performance is less than the target.) "Change" indicates the difference between 2009-2010 and 2010-2011 results. (A negative number means the performance level declined.) Note that performance between 2009-2010 and 2010-2011 improved overall and in all subgroups except for Limited English Proficient students.

Table I. 1S2 Academic Attainment – Mathematics
Subgroup Performance

Population	Actual	Gap	Change
Overall	63.47%	-6.73%	2.61%
Male	64.82%	-5.38%	2.25%
Female	61.93%	-8.27%	2.95%
American Indian	56.97%	-13.23%	5.72%
Asian	75.55%	5.35%	1.86%
Black	46.96%	-23.24%	2.89%
Hispanic	60.57%	-9.63%	2.75%
White	73.64%	3.44%	2.75%
2 or more races	66.54%	-3.66%	2.20%
Hawaii	60.00%	-10.20%	
Disabled	34.69%	-35.51%	1.15%
Economically Disadvantaged	56.23%	-13.97%	4.15%
Single Parents	50.70%	-19.50%	5.13%
Limited English Proficient	39.68%	-30.52%	-1.12%
Nontraditional	67.61%	-2.59%	3.44%

North Carolina will continue to implement the action plan initiated as a result of 2009-2010 performance on this measure. Table II details action steps, responsible staff, and current status of this effort.

Table II. 1S2 Academic Attainment - Mathematics Action Plan				
Action Steps		**Status**	**Staff Responsible**	**Timeline**
1	Design targeted training for CTE teachers and deliver at the CTE Summer Conference.	The 2011 CTE Summer Conference provided approximately 19 targeted training sessions focused on the inclusion of math. Sessions focused on application, resources, implementation, lesson planning and objective- driven curriculum activities and instruction teachers could utilize in their curriculums, Career and Technical Student Organization activities, and curriculum integration activities. Approximately 2,600 CTE educators attended the conference. Plans are underway for the 2012 CTE Summer Conference.	Felicia Gray-Watson	By July 31, 2012
2	Work with Southern Regional Education Board and other stakeholders to develop a model for integration of mathematics into CTE courses and create one or more courses using this model.	During 2010-11, the following actions occurred: business and industry gave input on the direction of the courses, math/language arts/science DPI consultants gave input on the subject matter to be included in the courses. One course was developed and three others are under development. All include math instruction and assessment aligned to Common Core State Standards.	Atkins Michael	By June 30, 2012
3	Provide training for CTE Administrators in analyzing local data and developing strategies for improvement on this measure.	CTE Regional Coordinators have begun to develop a process for analysis of CTE data using the Analysis and Reporting system. A training package on how to extract and interpret the A&R data was developed and presented it to the Regional Coordinators and groups of CTE Administrators and Instructional Management Coordinators. In 2011-2012, this project will be expanded to include all areas of the state and other target groups. In addition, Regional Coordinators worked with a contractor to provide regional train-the-trainer workshops that offered mathematics strategies relevant to CTE. State CTE consultants also received training and supplemental materials to use in development of curriculum documents and professional development.	Wendy Edney	By April 30, 2012
4	Collaborate with Division of Accountability staff and others within NCDPI to implement an assessment program designed to provide diagnostic information and intervention strategies on student mathematics achievement.	CTE staff has worked with others throughout the agency to design a new accountability model that provides diagnostic assessment of students' mathematical skills and targets remediation where it is most needed. In 2011-2012, the agency will implement the first phase of this model, which includes use of WorkKeys with senior CTE concentrators to evaluate skills in mathematics.	Jo Anne Honeycutt	By June 30, 2012

No Migrant students were identified in the results. Because there are no displaced homemakers reported in NC secondary CTE, no files have been uploaded to EdFACTS for this subgroup.

Postsecondary

In 2010-2011, North Carolina failed to meet at least 90 percent of the agreed upon state adjusted level of performance for one Core Indicator of Performance, 2P1-Credential, Certificate, or Degree. Table III details this Core Indicator and disaggregated populations with gaps in performance, and Table IV specifies action steps, responsible staff for implementing action steps, and timeline for implementation of action steps.

Table III. 2P1—Credential, Certificate, or Degree Subgroup Performance		
Population	**Actual Level of Performance**	**Difference between Actual Performance and Target**
Overall (59.00%)	**51.62%**	**-8.38%**
Male	38.75%	-20.25%
Female	73.13%	14.13%
American Indian or Alaskan Native	41.27%	-17.73%
Asian	42.51%	-16.49%
Black or African American	36.54%	-22.46%
Hispanic/Latino	45.71%	-13.29%
Native Hawaiian or other Pacific Islander	40.00%	-19.00%
White	60.69%	1.69%
Two or More Races	23.69%	-35.31%
Unknown	58.95%	.05%
Individuals with Disabilities (ADA)	53.73%	-5.27%
Economically Disadvantaged	50.40%	-8.60%
Single Parents	42.46%	-16.54%
Displaced Homemakers	42.51%	-16.49%
Limited English Proficient	53.76%	-5.24%
Nontraditional Enrollees	38.10%	-20.90%
Tech Prep	65.32%	6.32%

*Subgroups highlighted in yellow failed to meet at least 90 percent of the performance target.

2P1— Credential, Certificate, or Degree Action Plan			
	Action Steps	**Staff Responsible**	**Timeline**
1	Solicit best practices from colleges successfully meeting 2P1 and disseminate to all colleges through NC-NET.	Nancy Massey and Douglas Long	By June 30, 2012
2	Explore opportunities increase access to valid data regarding participation and performance on third-party credential providers.	Douglas Long	By June 30, 2012
3	Require state-approved action plans from each college not meeting at least 90% of their negotiated Local Adjusted Level of Performance for 2P1.	Bob Witchger	By June 30, 2012

4. Implementation of Local Program Improvement Plans

Secondary

As part of the grant process, North Carolina's 115 local education agencies (LEAs) must prepare a plan to develop strategies for improving performance on the eight secondary Performance Indicators. This requirement applies to all LEAs, no matter what their current level of performance. In addition, local education agencies that failed to meet at least 90 percent of their targets are required to provide additional documentation of efforts to close the gap.

At the state level, information about which local education agencies failed to meet at least 90 percent of their performance targets is used to direct additional technical assistance and professional development where it is most needed.

Secondary Performance Indicators*								
	1S1	**1S2**	**2S1**	**3S1**	**4S1**	**5S1**	**6S1**	**6S2**
State performance	MET	NOT MET	MET	MET	MET	MET	MET	MET
LEAs **meeting** 90% or more of performance target	96	33	83	114	115	108	99	102
LEAs **not meeting** at least 90% of performance target	19	82	32	1	0	7	16	13
Percentage of LEAs that met 90% or more of performance target	83.5%	28.7%	72.2%	99.1%	100.0%	93.9%	86.1%	88.7%

**Calculated on data prior to EDEN submission.*

Trends by Indicator

In 2009-2010 North Carolina met at least 90 percent of the agreed upon state adjusted level of performance for all Performance Indicators except 1S2.

1S1 Nineteen LEAs failed to reach at least 90 percent of the target. Students with Disabilities and Limited English Proficient students were the subgroups that fell farthest below the performance target. Females scored better than Males. Asian and White students and those reporting Two or More Races scored better than did Black, Hispanic, and American Indian students. Of all subgroups, only the performance of American Indian students increased over the previous year.

1S2 For 2010-2011, 28.7 percent of LEAs reached at least 90 percent of the target for this measure. Asian and White students were the only subgroup to reach at least 90 percent of the target, and no subgroup performance exceeded the actual target. The subgroups with the greatest gap between the target and their actual performance were Black students, Students with Disabilities, and Limited English Proficient students. All subgroups except Limited English Proficient students increased their performance from 2009-2010.

2S1 Significant performance gaps exist between the target and actual performance for a number of subgroups, most notably Limited English Proficient students, Students with Disabilities, and Migrant students. The highest performance was from White and Nontraditional students but only Nontraditional showed an increase over 2009-2010.

3S1 Only one LEA failed to attain 90 percent or more of the target for this performance indicator. All subgroups statewide met or exceeded the actual target. There was a small drop in the performance of all racial and ethnical subgroups.

4S1 All LEAs met 90 percent or more of the target for this performance indicator and only five LEAs failed to meet the actual target. All subgroups met at least 90 percent of the target. Four subgroups – Students with Disabilities, Limited English Proficient students, Economically Disadvantaged students, and Single Parents – fell slightly below the actual target.

5S1 Only seven LEAs failed to meet at least 90 percent of the target for this performance indicator. The subgroups that failed to meet at least 90 percent of the target were American Indian students and Single Parents.

6S1 Sixteen LEAs failed to meet at least 90 percent of the target for this performance indicator. Of the reported subgroups, Males and Migrant students failed to meet at least 90 percent of the target. Black and Asian students were most likely to be non-traditional and American Indian students least likely.

6S2 Nearly 90 percent of LEA met at least 90 percent of the target for this performance indicator. Fifteen LEAs had 5 or fewer nontraditional concentrators and three had none at all! The result on this Performance Indicator appears to be impacted strongly by the performance of nontraditional males, who made up less than 5 percent of the population of male students who were concentrators in nontraditional programs. Most male students were enrolled in courses that are traditional for males. The number of Migrant students included in this measure is too small to draw conclusions about their performance.

Postsecondary

Each college that failed to meet 90 percent of an agreed upon local adjusted level of performance is required to implement a state-approved Action Plan that will be designed to improve results. Upon approval of the Action Plan the college will be required to regularly report the changes being made to improve results, the resources dedicated to making these improvements, staff responsible for activities within the action plan, and milestones to be achieved as the plan is implemented.

Through data analysis, the state will work to identify factors that contributed to deficiencies in individual core indicators at multiple colleges. When applicable and determined to be the best course of action, the state will work to establish training and identify best practices for the relevant Core Indicators.

Local College Core Indicators						
	1P1	**2P1**	**3P1**	**4P1**	**5P1**	**5P2**
Colleges **meeting** 90% or more of Core Indicator	54	48	22	53	47	35
Colleges **not meeting** 90% of Core Indicator	3	9	35	4	10	22
Percentage of colleges that met 90% or more of Core Indicator	94.7%	84.2%	38.6%	92.8%	82.4%	61.4%

Trends by Core Indicator

1P1 Data indicate trends showing that American Indian or Alaska Native, Black or African American, and Tech Prep students at local colleges often achieved less than 90 percent of the negotiated level of performance.

2P1 Data indicate trends showing that American Indian or Alaska Native, Asian, Black or African American, Hispanic/Latino, Native Hawaiian or Other Pacific Islander, Two or More Races, Economically Disadvantaged, Single Parents, Displaced Homemakers, and Nontraditional Enrollee students at local colleges often achieved less than 90 percent of the negotiated Level of Performance. Additionally, only nine colleges failed to meet this indicator, yet cumulatively, the state did not meet 90% of the negotiated rate for this core indicator.

3P1 Data indicate trends showing that American Indian or Alaska Native, Asian, Hispanic/Latino, Native Hawaiian or Other Pacific Islander, Two or More Races, and Individuals with Disabilities (ADA) students at local colleges often achieved less than 90 percent of the negotiated level of performance.

4P1 Data indicate trends showing that Asian students at local colleges often achieved less than 90 percent of the negotiated level of performance.

5P1 Data indicate a trend showing that Male students at local colleges often achieved less than 90 percent of the negotiated level of performance.

5P2 Data indicate trends showing that Male and Asian students at local colleges often achieved less than 90 percent of the negotiated level of performance.

5. Tech Prep Grant Award Information

Effectiveness of Tech Prep Programs

During 2010-2011, North Carolina began a three-year cycle of Tech Prep grant funding to a total of 33 consortia each consisting of at least one Local Education Agency and one Community College.

These Tech Prep programs included the following activities:

- Demonstrated a solid, comprehensive partnership between secondary education, postsecondary education, and the business community that strengthened pathways from secondary to postsecondary to work
- Developed strategies to reduce the percentage of students who need to enroll in remedial mathematics, reading, or writing courses at the community college
- Focused on emerging careers in the following community college program areas: Construction Technologies, Engineering Technologies, Industrial Technologies, Health Sciences, and Transport Systems Technologies
- Educated parents and counselors about the benefits of Tech Prep

The effectiveness of Tech Prep programs assisted through these funds is significant. The relevant findings are as follows:

- The continued increase of career academies provides career pathways for students to actively take part in Tech Prep as they move through high school in technical cohorts and transition to the community college.
- Opportunities for secondary students to earn postsecondary credit continues to increase through the implementation of North Carolina's "Learn and Earn Online" program.
- The number of secondary students earning articulated credit continues to rise.
- The need for remediation in mathematics, as well as reading and writing continues.
- Tracking of industry certifications is challenging as most certifying agencies do not share completion information with the education agencies.
- Marketing Tech Prep continues on various avenues including the development of many informational websites including a state website at www.ctpnc.org and periodic webinars with consortia members.
- Consortia created podcasts are used to share Tech Prep information and promote promising practices.

Award Process

In the spring of 2010, consortia were invited to submit proposals to the state for competitive Tech Prep funding. The guidelines for the competition were clearly outlined in a formal request for proposal, which was made available to every eligible consortia member within the state. The proposals were evaluated by panels of educators from across the state, all of whom are familiar with

Career and Technical Education and Tech Prep. The following represents the responses received during this grant review process:

Summary of Grant Data:

	Applied	Recommended
Total number of Consortia:	44	33
Total number of Community Colleges:	39	30
Total number of LEAs:	66	46
Total funds requested (per year):	$3,551,622	
Potential available funds (per year):	$2,723,950	
Total awarded (per year):	$2,715,622	

Tech Prep Consortia Funded in 2010-2011				
Community College	**LEA**	**Allocation to CC**	**Allocation to LEA**	**Total Allocation**
Alamance Community College	Alamance-Burlington School System	$29,569	$59,139	$88,708
South Piedmont Community College	Anson County Schools	$23,667	$47,333	$71,000
Asheville-Buncombe Technical Community College	Asheville City Schools, *Buncombe County Schools, Madison County Public Schools	$40,000	$80,000	$120,000
Beaufort County Community College	Beaufort County Schools	$26,000	$52,000	$78,000
Bladen Community College	Bladen County Schools	$19,000	$38,000	$57,000
Brunswick Community College	Brunswick County Schools	$22,844	$45,689	$68,533
Western Piedmont Community College	Burke County Public Schools	$23,667	$47,333	$71,000
Rowan-Cabarrus Community College	Cabarrus County Schools	$33,000	$66,000	$99,000
Caldwell Community College and Technical Institute	Caldwell County Schools	$26,000	$52,000	$78,000
Carteret Community College	Carteret County Public School System	$21,333	$42,667	$64,000
Craven Community College	Craven County Schools	$18,489	$36,978	$55,467
Fayetteville Technical Community College	Cumberland County Schools	$44,667	$89,333	$134,000
College of The Albemarle	Dare County Schools	$22,860	$45,720	$68,580
Durham Technical Community College	Durham Public Schools, Chapel Hill-Carrboro City Schools, *Orange County Schools	$42,333	$84,667	$127,000
College of The Albemarle	Edenton-Chowan Schools, *Perquimans County Schools	$19,000	$38,000	$57,000
Guilford Technical Community College	Guilford County Schools	$56,333	$112,667	$169,000
Haywood Community College	Haywood County Schools	$18,487	$36,974	$55,461
Roanoke-Chowan Community College	Hertford County Public Schools	$19,000	$38,000	$57,000
Beaufort County Community College	*Hyde County Schools, Tyrrell County Public Schools, Washington County Schools	$26,667	$53,333	$80,000
Johnston Community College	Johnston County Schools	$30,111	$60,222	$90,333
Central Carolina Community College	*Lee County Schools, Chatham County Schools, Harnett County Schools	$35,333	$70,667	$106,000
Lenoir Community College	Lenoir County Public Schools, Greene County School System, *Jones County Public Schools	$19,500	$39,000	$58,500
Gaston College	Lincoln County Schools	$23,667	$47,333	$71,000
Coastal Carolina Community College	Onslow County School System	$29,844	$59,689	$89,533
Piedmont Community College	Person County Schools	$15,659	$31,319	$46,978
Pitt Community College	Pitt County Schools	$23,313	$46,627	$69,940
Richmond Community College	*Richmond County Schools, Scotland County Schools	$23,667	$47,332	$71,000
Robeson Community College	Public Schools of Robeson County	$30,667	$61,333	$92,000
Isothermal Community College	Rutherford County Schools	$19,400	$38,800	$58,200
Sampson Community College	*Sampson County Schools, Clinton City Schools	$26,000	$52,000	$78,000
Forsyth Technical Community College	Stokes County Schools	$23,667	$47,333	$71,000
Wayne Community College	Wayne County Public Schools	$28,333	$56,667	$85,000
Forsyth Technical Community College	Winston-Salem/Forsyth County Schools	$43,130	$86,259	$129,389
TOTAL		$905,206	$1,810,411	$2,715,622

*2009-2010 Carryover Dollars