North Carolina

Performance Report

Program Year 1995-96

Carl D. Perkins Vocational and Applied Technology Education Act of 1990

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Department of Public Instruction • Bob Etheridge, State Superintendent
Workforce Development/Vocational Education

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North Carolina
Annual Performance Report
For the Vocational and Technical Education State-Administered Program under the Carl D. Perkins Vocational and Applied Technology Education Act of 1990
P.L. 101-392

Program Year
1995-96

Workforce Development/Vocational Education conducts activities and procedures without regard to race, creed, color, national origin, gender or disability.

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Introduction

This Performance Report presents the programs, services, and activities provided to the youth in secondary vocational and technical education in North Carolina from July 1, 1995 - June 30, 1996. This report is a compliance document for the U.S. Department of Education. It also represents the efforts at all levels to improve the quality of education and training for participants in vocational and technical education.

As directed by the North Carolina State Board of Education, the FY 1996 federal grant and the contents of this report reflects the two-thirds/one-third split by secondary and postsecondary education and the appropriate clientele they served at each level. Data are provided to reflect services to special populations, business/industries participation, professional development activities, and performance standard summaries.

All parts of this report display coordinated efforts to provide maximum results for the students served by vocational and technical/workforce development education in North Carolina.

June S. Atkinson
Head, Workforce Development and
Assistant Director, K-12
Division of Instructional Services

Certification

The State Board of Education, sole state agency, has the authority under Public School Law 115C-153, to approve and submit the FY 96 Performance Report for Vocational and Technical Education. This report has been prepared as authorized by 34 CFR 400. The report covers the twelve-month program year July 1 to June 30.

North Carolina State Board of Education
(Official Name of State Board)

12-5-96
Date

Jay M. Robinson
Chairman, NC State Board of Education

12-5-96
Date

Bob Etheridge
State Superintendent of Public Instruction

Summary of Secondary Services & Activities

Workforce Development/ Vocational Education

Workforce Development/Vocational Education in North Carolina is organized in grades 6 through 12 in the public school system. The program begins with exploratory courses and leads to specialized classroom instruction in grades 11 and 12.

Mission

The mission of Workforce Development/Vocational Education is to empower students for effective participation in a global economy as world class workers and citizens.

Purpose

The purposes of Workforce Development/Vocational Education are to:

- Prepare students for further workforce development/vocational education.
- Prepare students for initial employment.
- Assist students in making educational and career decisions.
- Apply and reinforce related learnings from other disciplines.
- Prepare students to make informed consumer decisions and apply practical life skills.
- Assist members of special populations to succeed in workforce development/vocational education programs.

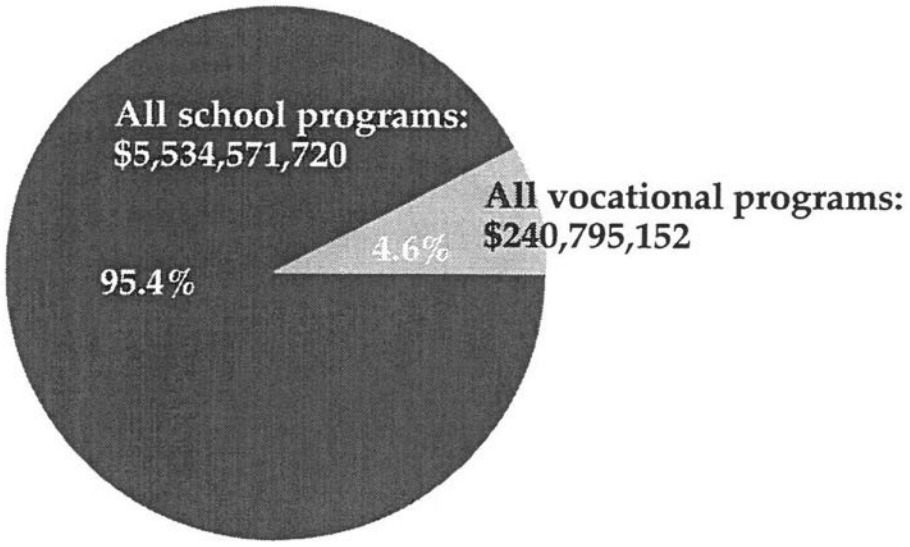
Served:

119 **LEAs**

306 **Secondary Schools**

9 **Career Centers**

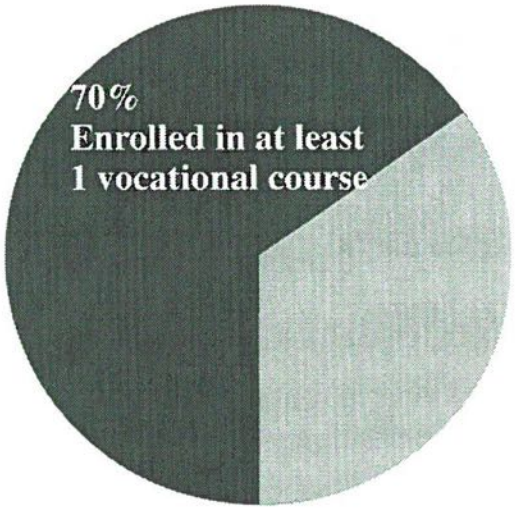
Total Educational Expenditures:
(94-95)



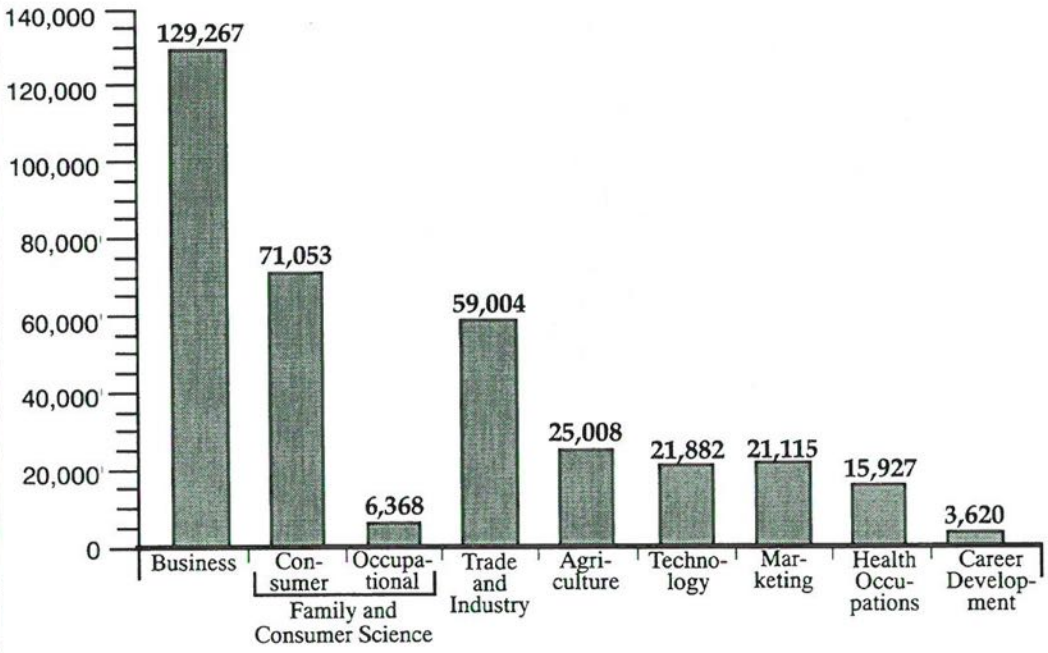
Workforce Development/ Vocational Education

Total statewide enrollment in Grades 9-12: 310,960

Total statewide student enrollment in Vocational Education, Grades 9-12: (unduplicated count) 218,889*



Number of Students per Program Area**
Grades 9-12 (duplicated count)

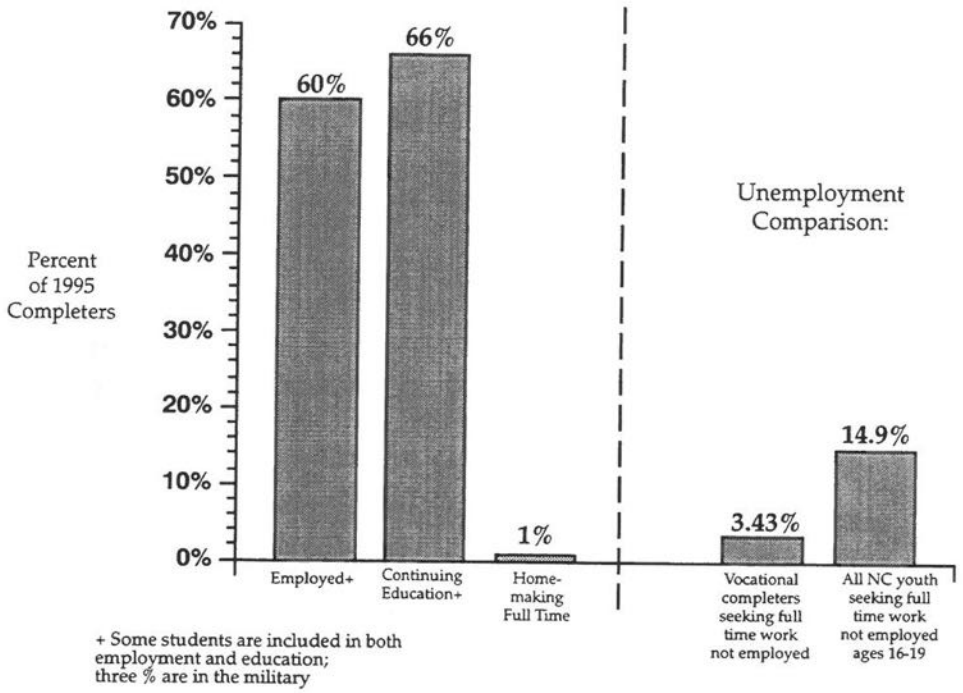


*Total student enrollment for Vocational and Technical Education Grades 6-8: 236,681 (duplicated count)

**See Appendix I for additional information.

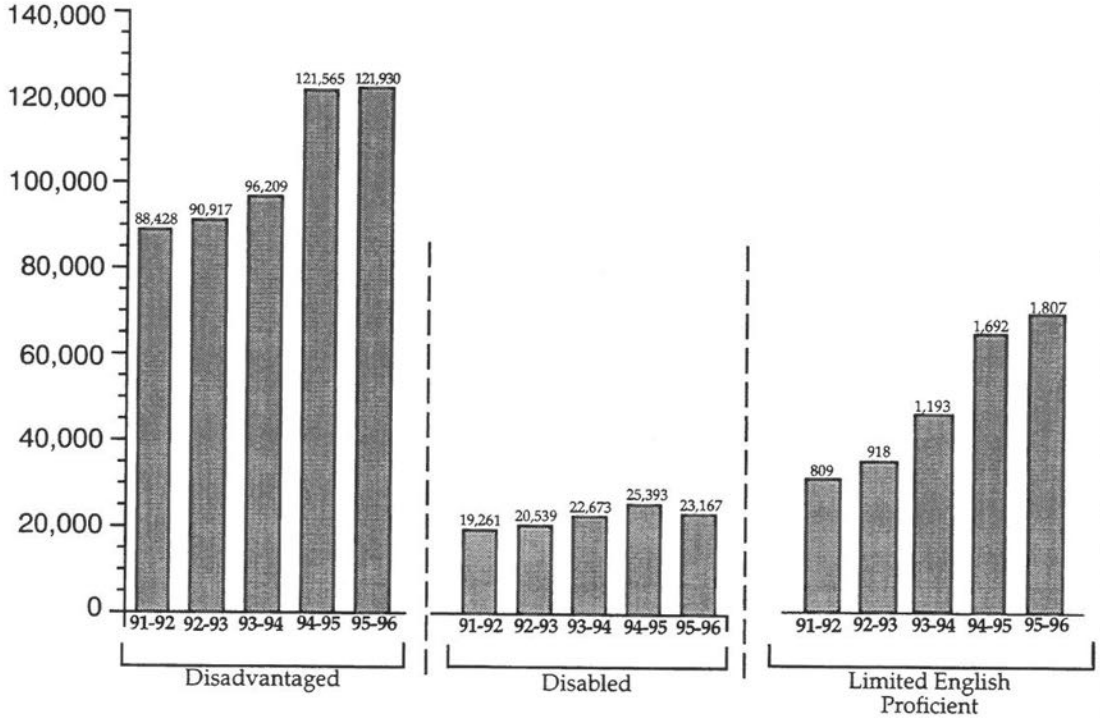
Status of the 38,614 Workforce Development/Vocational Education completers

Completers of Workforce Development/ Vocational Education



Number of Special Populations Students in Grades 9-12

Special Populations Enrollment Trends



Achievements

With funds provided under Titles I, II, and III of the Carl D. Perkins Vocational and Applied Technology Act of 1990, the following programs, services, and activities were conducted:

Programs

- Development and distribution of 20 curriculum products, 41 test-item banks, and 37 course blueprints;
- Two-volume set published of Integrated Curriculum Supplement for business, marketing, and mathematics and disseminated to over 2,500 classroom teachers;
- Tech Prep collaboration with North Carolina Community College System to provide leadership and support to 119 LEAs and 58 community colleges. Criteria was developed for innovative/demonstration tech prep grants.
- Continued implementation of and use of evaluation data for the established vocational performance system;

Services

- Use of electronic system for preparation, transfer of LEA annual local plans/applications/budgets and for data collection, distribution, and review;
- Involvement of approximately 3,600 business/industry personnel in curriculum development, professional development, and vocational student organization activities.
- Professional development activities for teachers.

Grants

During the 1995-1996 school year, 19 gender equity grants were awarded to address gender equity issues. Approximately $650,000 was used to provide programs and activities for more than 3,241 youth in grades 9-12.

Seven single parent, displaced homemakers and single pregnant women grants were awarded to provide programs and services to 356 students at the secondary level. These students were assisted in continuing their education, developing marketable skills, and accessing vocational training.

Community based organization funds (CBOs) enabled 124 special needs youth the opportunity to receive pre-employment and/or job training preparation. The number of youth served from these carryover funds continued to target the disadvantaged, disabled and limited English proficient.

Collaboration

A partnership with the North Carolina Council on Economics was established along with seven pilot sites for Economics in the Work-Place curriculum. Tech Prep and the North Carolina Department of Labor developed a high school apprenticeship grant and a new policy on apprenticeship credits at community colleges.

Collaborative efforts with the Governor's Commission on Workforce Preparedness, included: establishment of a joint Career Development Advisory Committee; development of policy, grant standards, and operation procedures for school-to-work system; and review/recommendation of grant recipients.

Reform Initiatives

There are four school reform initiatives in North Carolina which have an impact on workforce development/vocational education. These four efforts include the ABCs plan, The North Carolina School Improvement Panel, Standards and Accountability Commission and Commission on Workforce Preparedness.

Performance Measures and Standards

Contributions of the Committee of Practitioners

The system for performance measures and standards has been implemented in all the school systems in North Carolina. The Committee of Practitioners continued its role in making recommendations about the performance system. The local planning system was further revised to accommodate local improvement needs tied to Perkins II planning cycles, requirements and performance measures.

Results of the Workforce Development Education Performance System's planning and work were:

Assistance to LEAs

- **Increased** sophistication of the **computer programs and delivery mechanisms.** Data now are delivered by disk to LEAs in the formats approved by the VEIS advisory committee.

- **Performance standard reports to all LEAs with information tailored to go to high schools.** These reports show the degree to which each standard was attained by each course within each school and LEA. Each LEA then used these reports to develop the local plan.

- **Revision of the local planning process.** The local planning process was revised to accommodate local needs in planning. The local plan's cycle was split into two parts to accommodate the times when data were available at the local level. A checklist of Perkins II requirements was developed and completed by each vocational director, and then verified by the regional coordinator.

Progress Made

- **Common Follow-Up System.** Steps were taken to develop the long term, common follow-up system for different workforce development agencies. Using the Employment Security Commission's data base from employer records, a common format was developed for the reports. Much development remains both conceptually and operationally.

- **Interagency Performance Management System.** Continued progress was made toward developing generic performance measures to be used across agencies, and in conjunction with One-Stop Career Development Centers. An agreement was reached to use the Baldrige System for workforce development strategic planning. The Governor's Commis-

sion on Workforce Preparedness adopted the Baldrige criteria as the chartering criteria for One-Stop Centers. Training was provided to selected groups and agencies on using the Baldrige system for high performance.

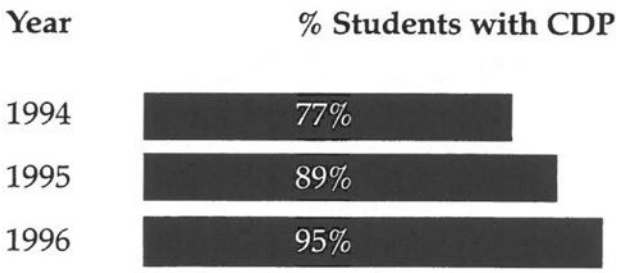
- **Customer Feedback.** Workshops were held in three regions to share information and get feedback about the performance system. The degree of satisfaction is growing.

- **Coordination.** The Committee of Practitioners and other groups continue to call for greater coordination in performance development and implementation with other groups and agencies. Coordination with the School-to-Work office continues.

Trends and Impact

Statewide three-year results for performance measures and standards follow:

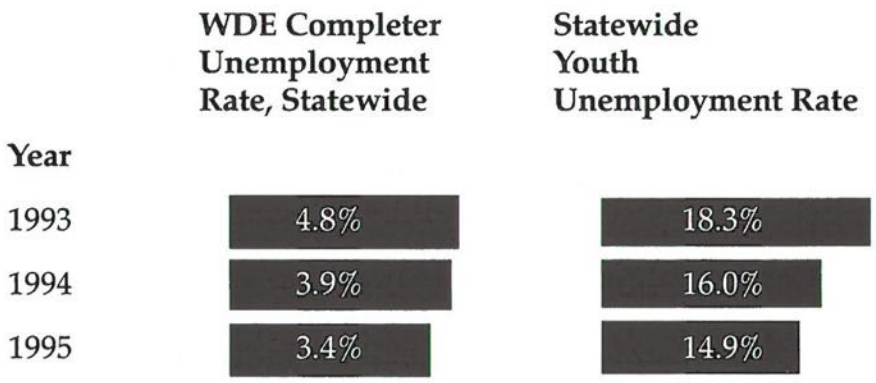
Standard 1. Each student enrolled in vocational and technical education, grades 9 - 12, will have a career development plan (CDP) on file which includes academic and vocational and technical education courses appropriate for his or her designated career goal (as reported by percentage of students with CDPs).



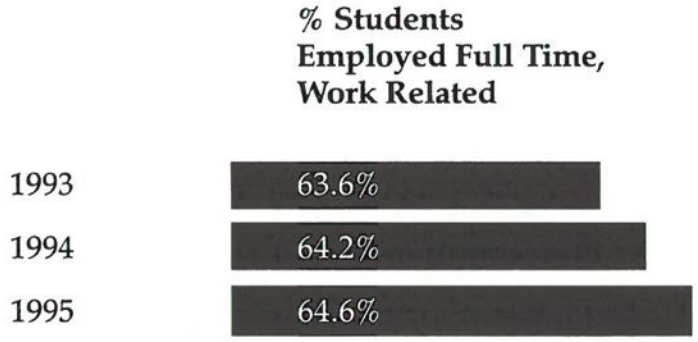
Standard 6. Seventy percent of all vocational and technical education completers (as reported by percentages of students for each school) will enter further training or education, including that received in the military or on-the-job.

Performance Standards and Trends/Impact

Standard 7. The completer unemployment rate for those students seeking full-time employment will be lower than the county's youth unemployment rate as reported by job-skills-related program areas by school (by percentage of student completers not employed).



Standard 8. Of completers finding full-time employment 70% (as reported by percentage of students by school) will be employed in jobs related to their vocational programs.



For additional information on performance standards and measures, please note Appendix 2 and Appendix 3.

Single Parents, Displaced Homemakers and Single Pregnant Women

Students Served

LEAs and community based organizations, during the prior school year (1994–95), were provided the opportunity to apply for grant funds through the request-for-proposal process. The proposals were to address the needs of single parents, displaced homemakers, and single pregnant women to continue their education, develop marketable skills, and make vocational and technical training more accessible and successful.

During the 1995-96 school year, five LEAs were funded to address the needs of single parents, displaced homemakers, and single pregnant women. These five programs served a total of 356 students at the secondary level. The following services were provided to participants involved with these funded programs.

Services Provided

Assessment/Guidance. The needs of targeted program participants were assessed by program providers. All participants received supportive services through guidance and counseling. Services included emotional support, encouragement, self-esteem and self-confidence building, and crisis intervention. In addition to individualized counseling, coordinators offered workshops, seminars and group sessions to include decision-making skills, parenting skills, budgeting, time management, nutrition, medical needs, educational and career goal setting, coping, assertive training, and employability skills. Speakers, audio visual materials, and field trips enhanced these services.

Child Care and Transportation Services. Financial resources were provided for child care and transportation services to allow single parents and displaced homemakers to remain in school and acquire marketable skills.

Outreach/Referral Services. Referral services to, and contacts with, other community agencies were regular and ongoing. Advisory committees included key individuals from appropriate community/human service agencies.

Tutorial Services. Tutorial and remediation services were provided as needed to promote academic progress. Mentors were used. Home visits were made to assist confined students in keeping up with their school work.

Employability Skills. In addition to regular vocational and technical training, participants received additional instruction in life skills and employability skills to assist them in obtaining employment.

Supplies and Materials. As needed and appropriate, supplies and materials were provided to participants to enhance their educational and career success and parenting skills.

Effective Delivery Methods

Special and Effective Delivery Methods. Each LEA used various service delivery methods to enhance the effectiveness of the program in its school system.

1) Some LEAs used the single parent funds mainly to support the salary of an individual who provided direct counseling, guidance, referral, and other supportive services.

2) The case management approach was used effectively. Each participant was assessed, a profile developed, and plans and services developed and implemented according to individual needs.

3) Some programs incorporated a special incentive component for extra motivation and students accomplishments. Participants earned extra opportunities through compliance with an agreed upon goal such as reduction in absenteeism.

4) Two programs included a male support group for the fathers of the participants' children.

5) One program had provisions on the school campus for the participants to bring their children. The program incorporated an instructional component with interactions of parents with their children.

Staff Development. On-going technical assistance was provided to all programs by the state equity consultant. On-site program review visits were made.

Gender Equity

Gender Equity Programs

The goals of the gender equity programs were to provide programs, services, and activities to eliminate gender bias and stereotyping in vocational and technical education and to provide programs, services, and activities for girls and women ages 14 through 25 to support themselves and their families.

All LEAs were given an opportunity during the prior school year (1994-95), to apply for grants through the request-for-proposal process. The scope and design of each program varied according to local needs.

During the 1995-96 school year, 19 gender equity grants were awarded to LEAs to address equity issues. Services and activities were provided to 3,241 students in grades 9 through 12.

Achievements

Ten of the funded programs provided summer institutes where students participated in two or more of the following areas: assessment, guidance and counseling, outreach activities, and a variety of hands-on exploratory activities. The exploratory activities were in the areas of communication/media technology, transportation technology, construction technology, forestry, drafting, auto technology, lasers, hydraulics, applied physics/mathematics, electricity/electronics, agriscience, screen printing, robotics, computer graphics, bridge building, aerodynamics, and entrepreneurship. Computerized software programs were used extensively. The activities were diverse and included nontraditional speakers, field trips, and shadowing. Tours were many and varied including aerospace sites, aircraft flight control centers, colleges, hospitals, and a virtual reality center.

Supportive Services

During the regular school year, services provided included workshops, seminars, guidance and counseling, decision-making skills, time and money management, educational and career planning, employability skills, assertive training, and tutorial assistance. Equity Leadership Teams consisting of teachers and students were organized in some schools. They provided training and awareness on equity issues, designed and developed equity materials for teacher advocates, monitored school activities and materials for gender bias or stereotyping, developed and disseminated speakers' bureaus list including nontraditional role models, and designed and implemented a public awareness campaign on equity. Career day activities planned for all students included presenters representing nontraditional occupations.

The cost of child care and transportation services, as needed, was provided for eligible participants to enhance school attendance and achievement.

Local follow-up surveys of program participants revealed an increase in nontraditional training and employment, a decrease in dropout statistics, and a significant attitudinal change in gender role stereotyping by students and adults.

Advisory committees were instrumental in providing services to include publicity, speakers, equipment, tour sites, career day presenters, and program recommendations.

Program products were developed and included brochures, curriculum guides, career and educational plans, career packets, marketing designs, print screened products, posters, equity calendars, video cassettes and interactive media products.

Grant resources were used to purchase supplies and materials for exploring technology, entrepreneurship simulations, construction projects, videos, books, and software for recruiting, exploratory activities, and training. Publications and audio visuals developed were shared with other educational agencies.

Activities

Staff development activities for vocational, academic and counseling staffs were conducted to increase awareness of gender bias and provide strategies to eliminate gender bias. Equity teams from approximately 20 local educational agencies, committed to providing equity leadership on the local level, participated in a three-day Statewide Equity Leadership Conference. The conference participants included vocational and academic teachers, counselors, and administrators. Equity impact meetings were held to foster the enhancement of meaningful equity activities and services on the local levels. Leaders from all of the funded programs and other program leaders participated.

Technical assistance was provided to all funded programs and many that were not funded. This technical assistance included telephone calls, on-site visits, budgetary matters, correspondences, collection and review of progress and final reports, civil rights team participation, and presentations at conferences and workshops. Equity materials were designed, developed, and disseminated to all local school systems. Ten local school systems were visited by the state equity consultant.

Materials developed and disseminated statewide included a book, **Gender Equity – A Handbook for LEAs**, and a leaflet *"Internet Resources for Gender Equity"*.

A final summary report of all funded programs was developed and entitled "Effective Practices: Gender Equity and Single Parent Programs." It is available from the state equity consultant.

The Department of Public Instruction, along with East Carolina University and North Carolina A&T University, sponsored two-week residential Summer Technology Institutes for the Advancement of Gender Equity in High Technology for high school females on university campuses in July 1996. The Summer Technology Institutes were provided to increase the participants' level of aspiration and expectation for participating in nontraditional programs and seeking nontraditional careers in high technology. These activities and services have contributed to improving programs through increased awareness of equity issues in vocational and technical education and employing strategies to eliminate barriers that prevent equity. Specifics about each of the two Institutes follow.

Exemplary Gender Equity Programs

North Carolina A & T State University
Summer Institute for the Advancement of Gender Equity in High Technology

North Carolina A & T State University, Greensboro, provided a residential Summer Technology Institute for 50 high school females from 26 counties. The Summer Technology Institute accomplished the following objectives:

- Provided at least 12 high technology activities/experiences for females in grades 10-12;
- Provided high technology experiences in a modern teaching/learning environment; and
- Provided counseling and mentoring by females employed in nontraditional high technology careers.

The Summer Technology Institute participants engaged in the following high technology activities: laser and fiber optics, computer numerically controlled devices (mill and lathe), videography, robotics, electronics, satellite communication, high speed transportation, desktop graphics, computer construction, computer aided design (CAD), biotechnology, and engineering concepts.

Highlights of the Institute included field trips, TechPlus Modules, Showcase of Activities, Talent Show, and Awards Program.

East Carolina University
Technology Adventures Program (TAP)

East Carolina University, Greenville, provided a two-week residential Summer Technology Program for 40 high school females representing 23 local school systems. TAP was designed to broaden the participants' understanding of technology and develop confidence in their ability to succeed in a variety of technical fields. The Summer Technology Institute accomplished the following objectives:

- Exposed participants to a broad range of technology concepts through hands-on activities;
- Demonstration integration of science, mathematics, and academic skills;
- Provided career information on nontraditional technical occupations;
- Created an awareness of gender bias and stereotyping that may prevent females from entering technical occupations; and
- Provided a mentorship and support network to facilitate career decision making.

The Technology Institute provided a variety of technology activities and modules. The modules featured were Technology Discovery Modules, Career Orientation Modules, Observing High Technology and Investigating North Carolina High Technology. The TAP participants engaged in such hands-on activities as lasers, robotics, electronics, photography, desktop publishing, presentation computer software, and Internet.

Copies of reports on both Technology Institutes are available in the office of the state consultant for gender equity.

Criminal Offenders in Correctional Institutions

Correctional Institution

Youth Services, a Division of the North Carolina Department of Human Resources, operated five special public schools for children ages 10-17 who were committed by the courts. During the 1995-96 school year, 987 new students were admitted and served.

The primary purpose of the vocational program in the Division's five training schools is to introduce students to the world of work with an emphasis on helping them to become productive citizens, thereby reducing crime. Individual needs, interests, abilities, skills and attitudes were assessed to determine the appropriate education plan. The curriculum design, materials and teaching

strategies take into account the special needs of the training school students. The students rotate through a variety of vocational awareness courses and are able to participate in a work experience program. Ultimately, the Division strives to help students to make wise career decisions, to prepare a career plan for the future, and to provide them with the opportunity to practice job readiness skills for entry level employment in hopes of producing productive citizens.

Students Served

By legislative definition, all of the students enrolled in the training schools were members of special populations. The majority of them were academically disadvantaged who had difficulty succeeding in the school environment. Subsequently, funds were used to accommodate the special needs of students as well as provide in-service training and purchase equipment as instructional supplies.

Services

In-service training for program improvement was received by all vocational teachers. These sessions included information on the implementation of VoCATS, instructional plans based on blueprints and 4MAT lesson planning, coordination of services between special programs and vocational education, special populations services provided by the NC Community College System, guidance and counseling services, and managing instruction. The major outcomes for the instructional program were to assist teachers in 1) writing and recognizing measurable outcomes; 2) interpreting the steps in making a valid test; 3) identifying the steps in giving a test fairly; 4) analyzing and using test data in planning instruction; and 5) aligning and adjusting lesson plans using objectives and test data. The principals also received in-service training necessary for program improvement. Their sessions included information such as coordination of services between vocational rehabilitation and the division of youth services, building a comprehensive guidance and counseling program, teaching middle grades students, coordination between vocational and special education, vocational and technical education update, and developing a three-year improvement plan.

The upgrading of vocational programs through the purchase of equipment significantly improved some of the programs taught in the schools. The programs included Agricultural Education, Business Education, Career Development, Family and Consumer Sciences and Trade and Industrial Education. All program areas benefited from the purchase of equipment and instructional supplies.

With the federal funds, the vocational program was able to make significant progress toward accountability. All vocational teachers administered pre and post tests. Integration activities were evident in all of the vocational classes. At Samarkand Manor, the Business Education and Language Arts Departments' integration project earned a national award from the Kraft Foods Company. In addition to this project the drafting, horticulture, cabinet and furniture-making and science classes combined in a joint effort to design and construct a landscape/flower areas in front of the school building. The vocational curriculum adopted by the State was being implemented in the schools. One school strengthened and lengthened its secondary program to make the programs commensurate with regular public schools. All vocational teachers received hands-on computer experience generating assessment instruments and some participated in specific program area training sessions.

Special Populations – Disabled

Services Provided

Achievement in Providing Equal Access for Disabled. The number of disabled students enrolled in vocational and technical education programs reached 23,167 of the 146,904 special populations students enrolled in all vocational and technical education classes in grades 9 through 12. These students were enrolled in the full range of vocational offerings and the majority of them participated in the regular vocational programs.

Achievements

Achievement in Providing Equal Access in Recruitment. Recruitment activities were presented in the middle grades and at the high school level for disabled students. In the eighth grade, special populations coordinators, industry-education coordinators, vocational teachers, vocational student organization members, and guidance counselors provided orientation sessions about the vocational programs available in the high schools. Brochures, open house events and parent nights were used frequently to provide the required information to parents and students. Curriculum assistance guides were developed by the local education agencies and distributed to all students. In some cases, the support personnel visited the special education classes to ensure the students were aware of the vocational program offerings.

Achievement in Coordination Between Special Education and Vocational-Technical Education. Coordination improved between vocational and technical education and the exceptional children' programs at the state and local levels.

At the state level, consultants from both programs met periodically to improve coordination. Exceptional Children's Consultants presented sessions during statewide workshops for local vocational support personnel on coordinating services at the local level and on the mandates from the Individuals with Disabilities Education Act. Vocational and technical education consultants made presentations to exceptional children's program administrators and teachers to explain the Perkins legislation. At the local level, some vocational personnel participated in vocational planning meetings and assisted in the development of the vocational component to the Individual Education Plan (IEP). Participation needs to be expanded. As a result, more disabled students have individualized vocational plans.

Achievement in Assessment. While special populations coordinators and technical assistants were employed to provide vocational assessment to members of special populations, their numbers have been decreasing. Assessments were administered to students who were unable to take successfully the paper-and-pencil inventories. The vocational assessments included: an aptitude test, interest and learning styles inventories, and information from the special education teachers.

The special education file folder, other service providers, parents, and students were used to determine the most appropriate programs for the students.

Impact

After the students entered a vocational program, a pretest was administered. The information from the pretest was used to plan the instructional program for the students. Preliminary data suggested that disabled students scored as well as non-disabled students, particularly in gain scores.

Achievement in Career Development. More career development plans have been developed for each special populations student. These numbers were monitored to determine the degree to which disabled students had progressed and succeeded in their vocational and technical education courses. The CDP included a career goal, the most appropriate sequential course of study, assessment data, and support services needed to ensure the success of the student while enrolled in the vocational program. The number of special populations students enrolled in courses specified on their CDPs was monitored. The results were plans developed to help students enroll more frequently in their CDP specified courses.

Achievement in gains and mastery of vocational and academic competencies. Competency gain, attainment, and mastery were tracked through the Vocational Competency Achievement Tracking System. Appropriate additions were developed for the career development plans to help these students to have higher gains and mastery.

Achievement in Providing Equal Access for Transition from School-to-Work. All disabled students participating in the exceptional children programs and who were at least 16 years of age had a transition component to the Individual Education Plan (IEP). Vocational and technical personnel coordinated the transition services required of them with the IEP developers. In addition to those services, disabled students received instructional services related to transition through the competency based system. Those enrolled in cooperative education courses were ideally employed part-time in jobs related to their respective courses of study. Some were exposed to shadowing, internships, apprenticeship experiences, and actual job placement coordinated with various businesses and agencies. The success of disabled students in attaining employment and further education was tracked through the performance system. This feedback was used to make appropriate adaptations.

Special Populations – Limited English Proficient

Students Served and Achievements

The statewide total of identified Limited English Proficient (LEP) students enrolled in all 1995-1996 vocational and technical education programs was 1,807 of 146,904 in high school (counting each course in which they were enrolled). Identifying and serving those LEP students in migrant situations remains a problem. As more LEPs entered the public school system, the LEAs employed more English as a Second Language (ESL) teachers for the elementary and middle grades. By the time many of the students reached high school, some had a solid foundation in English. However, special populations coordinators worked very closely with the LEP students to ensure they understood their course work. Tutors, peer helpers, community persons, and the coordinators were available in some cases to provide the support services needed by these students enrolled in vocational and technical education.

Special Populations – Disadvantaged

Impact

Access. In high school, 121,930 of the 146,904 special populations enrollees were identified as disadvantaged. Disadvantaged students were enrolled in the full range of vocational offerings in the state. Special Populations coordinators and others provided supplemental services needed for the success of disadvantaged students in vocational and technical education.

Achievements

Student Performance Progress and Success. These students were monitored in relationship to attaining performance standards. Plans were developed and carried out to help them attain performance standards, including the career development plans. Each vocational program was monitored to determine if enrollments of disadvantaged students were based on this career development plan. The gains of disadvantaged students based on the Vocational Competency Achievement Tracking System were monitored, and corrective plans were developed to help them attain better gains. Their mastery was monitored with the same results. Finally their transition to other levels of education and training and then to employment were monitored, and corrective actions were applied through the performance system.

State Leadership and Professional Development

Priority for professional development again this year was given to performance standards attainment, instructional management/competency attainment through the Vocational Competency Achievement Tracking System, curriculum integration of academic and vocational education, technical updates including all aspects of industry, Tech Prep, and applied curricula.

A variety of delivery mechanisms were used for professional development. They included Distance Learning by Satellite broadcasts, the North Carolina Information Highway, an Internet homepage, a national satellite teleconference, telephone conferences and video segment developments. Examples of these follow on the next page.

Professional Development

Alternative Delivery--DLS Broadcast
Facilitated and coordinated the following alternative delivery services:

Completed seven DLS broadcasts.

1. Economics at Work
2 Integration of Academic and Vocational Education through HOSA
3. Making Career Connections in Family and Consumer Sciences Education
4. Performance System
5. STW: Request for Proposal
6. Update: Workforce Development Legislation
7. Virtual Reality

Information Highway
Coordinated Information Highway programs:

- Facilitated three workshops at 13 SREB/HSTW sites.
- Conducted two video conferences for 50 people on Promising Practices for Middle School Computers and Keyboarding Skills.

Internet Homepage
Established for Workforce Development the following homepages:

- Business
- Marketing
- Teacher Education
- VoCATS

Established Internet discussion groups for:

- Vocational teacher educators
- Local VoCATS coordinators

National Satellite Teleconference
Facilitated and moderated two teleconferences:

- Implementing Skill Standards for World Class Service
- Getting Ready for Change: Block Funding

Booklet Development
Developed and published three booklets for statewide distribution:

- Educators Return to Industry/STW
- Promising Practices
- It's 2001 --Trends for Workforce Development in North Carolina

Video Segments Development
Coordinated two sessions for national SREB/HSTW satellite conference on successful practices.

Phone Contacts and Consultation
Provided materials and technical assistance to the following support groups:

- Six regional VoCATS users groups
- Industry Education Coordinators
- Special Population Coordinators
- Local Vocational Directors
- Teacher Educators

Staff Development/Specific Technical Updates
Coordinated the following 26 professional development activities for 4,655 people:

Workshops – **Technical**	Participants
New Director Internship	4
Special Populations Workshop	100
A Model Tech Prep Program for Family & Consumer Sciences	30
Family & Consumer Sciences Teacher Ed./ Student Teacher Workshop	22
Fundamentals of Technology (2)	18
Principles of Technology I (2)	29
Principles of Technology - Physics	5
Technology Education Teacher Ed Conference	17
Teaching Higher Level Math Skills in Business & Marketing Education	80
Beginning Business Education Teacher Workshop	20
Beginning Marketing Education Teacher Workshop	18
VoCATS Test Item Development	317
Minority Leadership Institute	75

Workshops – **General**	Participants
NC Equity Leadership Conference	89
Program Area Leadership Council Management Team	125
Reading for Learning (4)	175
Employment Trend Data in Workforce Development	210
Local Vocational Director Updates (2)	240
Beginning, Intermediate, and Advanced VoCATS Software Applications for Improving Student Achievement	263
Local Assessment and Planning Techniques	236

Workshops – **New Initiatives**	Participants
Family & Consumer Sciences Mentor/Protégé'	33
Family & Consumer Sciences Mentor Seminar	9
Electronic Bulletin Board Service for VoCATS Users	111
Strategies for Teacher Educators on How to Infuse Total Quality Management Processes and Tools in Student Learning Activities	23

Summer Workshop
Developed and implemented a week workshop for 2,406 vocational educators.

Workshops	Participants
Agriculture Education	246
Business Education	405
Career Development	66
Family & Consumer Sciences	472
Health Occupations Education	111
Industry Education Coordinators	101
Marketing Education	162
Special Populations	103
Teacher Educators	21
Technology Education	125
Trade & Industrial Education	362
VoCATS Coordinators	105
Vocational Directors	127
Total	2,406

Curriculum Development

Statewide System Expanded

Development of curriculum continued to be a high priority during 1995-96. The curriculum development effort centers on the N.C. Vocational Competency Achievement Tracking System, a computerized instructional management system that can be used for:

- Planning instruction;
- Assessing students before, during, and after instruction;
- Evaluating student mastery of competencies; and
- Documenting gains in student achievement.

The system is used to meet federal legislative mandates requiring documentation of learning gains made in vocational courses.

Objectives are intended for use by teachers in planning the course of work, preparing daily lesson plans, and in developing instructively valid, pre- interim-post assessments. Results were

- Test-item banks on diskettes tied directly to the objectives from the blueprints;
- Statewide purchasing of software and annual support for LEAs (savings of more than $1.2 million to LEAs);
- Curriculum guides (either developed in North Carolina or adopted from other states);
- Generation of pre- and post-assessments, again tied directly to the objectives in the blueprints;
- Staff development; and
- Help desk to assist LEAs with implementation of VoCATS and use of related software.

New and Updated Materials

VoCATS products are available for most courses in the Vocational and Technical Education Programs of Study and Support Services Guide. Efforts continue to develop new materials, update existing materials, and keep them relevant.

Materials Available	Developed during 95 -96	Total available
Course blueprints	40	122
Curriculum guides	12	78
Test-item banks	36	99

Extent of use All LEA central offices and 95 percent of all high schools have computer hardware to run software. Approximately 4,000 teachers have participated in staff development about VoCATS during the past four years. All personnel coordinating VoCATS at the local level are part of self–directed regional user groups.

Some notable examples of use are: Nash/Rocky Mount Schools, McDowell County, Mecklenburg County, and Guilford County. Several LEAs are expanding VoCATS to include other instructional areas in addition to Workforce Development.

Research

Research in Vocational and Technical Education during the 1995-96 school year was focused on the integration of academic and vocational/technical education, impact of alternative scheduling, and administrator perceptions on NC's vocational/technical student tracking system (VoCATS). The secondary family and consumer sciences teachers' attitude about the preparation for working with special populations was studied. Also, alternative delivery of training for teachers and the impact of a second major requirement on vocational teacher preparation were studied. The eight research projects by title, researcher, and postsecondary institution were:

Research Title	Researcher(s) & Institution
Delivery of Training by Alternative Delivery As a Viable Strategy with Teachers	Rita Noel Jennie Hunter Western Carolina University
Secondary Home Economics Teachers' Attitudes about Teacher Preparation: What They Need vs. What They Received in Working with Special Education Students	Cheryl Lee Ellen Carpenter Appalachian State University
Perceptions by Secondary Principals of the Vocational Competency Achievement Tracking System (VoCATS)	Carolyn Jewell Pembroke State University
The Impact of Block Scheduling on Instruction, FFA and SAE in Agriculture Education	Gary Moore North Carolina State University
The Impact of the Second Requirement on Vocational Teacher Preparation	Rose Vaughan Fayetteville State University

Degree of Implementation of Academics and Vocational Education Including Follow-up of Teachers Who Participated in Integration Workshops	Dewey Adams Eric Graham North Carolina State University
Status of Teacher Preparation in the Integration of Academic and Vocational Curriculum	Jim Flowers North Carolina State University
Impact and Implications of Alternative Scheduling on Instruction, VSO Activities and Work-Based Learning	Cheryl Lee Appalachian State University

Youth Apprenticeships

The high school youth apprenticeship programs have continued to expand statewide. At the end of the 1994-95 school year, 391 high school students were participating in apprenticeship programs registered with the North Carolina Department of Labor. Apprenticeship programs exist in 56 schools and 28 local education agencies. By the end of the 1995-96 school year, 604 high school students had participated in apprenticeship programs and 92 were enrolled in a career major that had the same name as the apprenticeship job title. Programs existed in 90 schools and 40 local education agencies. Many of these 40 LEAs have received state and regional recognition for the innovative and enthusiastic approach to high school/youth apprenticeship. High school/youth apprenticeship is the highest form of high school, work based leaning. By combining related classroom learning with work based learning the student is better prepared to compete in the world job market.

The typical high school apprentice in North Carolina (during 1995-96) was:

- White Male
- Senior
- 17 and 18 years old
- Concentrated in central NC

High school/youth apprenticeship continues to be a major focus in the overall mission of developing a comprehensive and coordinated workforce preparedness system for North Carolina. Apprenticeship programs continue to bridge the gap between the education system and employers.

Southern Region Education Board (SREB) – High Schools That Work (HSTW)

North Carolina is a member state of the SREB/HSTW Consortium. The consortium was founded on the beliefs that:

1) All high school students, including the career-bound students, are capable of meeting higher standards;

(2) That high schools can change the way that they prepare students in general and vocational programs of study;

(3) That all students in both the general and vocational programs of study are capable of completing a challenging planned four-year program of study with a blending of high-level academic and modern vocational courses;

(4) That the program of study for career-bound students can be organized to prepare students for both work and further study; and

(5) That teachers should use functional and applied learning strategies that are related to real world situations in order to help career-bound students.

The number of SREB/HSTW sites in the state increased from 19 to 26. Twenty-four of the 26 sites revised their annual site action plans which target the ten key practices. In revising their plans, sites utilized a variety of available data which included student performance data. Each consultant in Workforce Development received training to review HSTW site action plans. All sites have signed memoranda of agreement and have completed site demographic reports. Four sites received three day, technical assistance visits and a follow–up written report.

Each of the sites administered the 1995-96 NAEP to seniors and/or completers. About 846 HSTW site teachers (English, Science, Math and Vocational) completed a survey which will be useful in determining staff development needs in order to implement the key practices for raising the academic achievement of students enrolled in vocational and general studies.

Three workshops targeting the "Integration of Academic/Vocational Education" were delivered to 13 sites through the use of the North Carolina Information Highway. Four, two-day workshops targeting "Reading For Learning" were conducted. During the year, two statewide meetings were conducted for all sites. These meetings focused on site action plan development, preparation for NAEP assessments, performance results and surveys. Local sites provided a significant amount of staff development for their faculty at the local schools.

Two booklets were developed/distributed entitled "Promising Practices" and "Educators Return to Industry" which provided examples from schools and school systems targeting improving student performance.

Reform Initiatives

There are four key school reform initiatives in North Carolina for which workforce development/vocational education has been actively engaged. These four initiatives include the ABCs plan, the North Carolina School Improvement Panel Standards and Accountability Commission and the Commission on Workforce Preparedness.

The ABC's Plan
At the state level, North Carolina has already enacted legislation and policy to structure school reform. At the heart of school improvement in the state is the following 1995 legislation:

Senate Bill 1139:

> *"An act to implement the recommendations of the joint legislative education oversight committee to implement the State Board of Education's ABCs plan in order to improve student performance and increase local flexibility and control, and to make conforming changes."*

The ABC's Plan focuses on:

- strong **A**ccountability:
- emphasis on the **B**asics and on high educational standards; and
- maximum local **C**ontrol.

Under the new plan, individual schools are held accountable for student performance. Staff in each school must take responsibility for the education of each student. The new accountability plan retains core pieces of the current testing program while cutting the amount of statewide testing.

North Carolina Program Improvement Panel (Goals 2000)
The Improvement Panel has recommended the following strategies to improve the preparation of students for lifelong learning and the world of work:

- eliminate the general track
- establish career pathways for all students

These recommended strategies support current initiatives of vocational education.

Standards and Accountability Commission

The North Carolina Standards and Accountability Commission was created by the General Assembly in July 1993 to ensure that *"all graduates of North Carolina Public schools will have mastered the skills required to become productive members of the workforce and succeed in life."* The purpose of the Commission, as stated in the legislation is:

> *"to develop high and clearly defined education standards for the public schools of North Carolina. These standards shall specify the skills and knowledge that high school graduates should possess in order to be competitive in the modern economy. The purpose of the Commission is also to develop fair and valid assessments to assure that high school graduates in North Carolina meet these standards."*

Workforce Preparedness

The Governor's Commission on Workforce Preparedness was established as the human resource investment council for North Carolina as permitted by Title VII, section 701, of the federal Job Training Reform Amendments of 1992. It acts in an advisory capacity to the Governor, General Assembly, state agencies, and private businesses about policies and programs which enhance the skill and expertise of the State's workforce.

A major milestone of the Commission was the establishment of JobReady: Making the Right Choice in North Carolina – North Carolina's School-to-Work Transition System for ensuring that all high school students have a clearly identifiable, accessible and attractive career pathway to the workplace. Also key to this important initiative is the task of developing and promoting strategies for cooperation among the academic, governmental, and private business sectors. The Commission builds, in partnership with schools, community colleges and employers, the capacity to increase and strengthen the State's workforce development system.

Community Based Organizations

Students Served

Number Served
During the 1995-96 school year, 124 (60 males and 64 females) economically and academically disadvantaged students, ages 16-21, were provided services from community-based organization grant funds carried over from prior years.

Urban and Rural Areas Served
Funds were competitively awarded to two LEAs: Martin County and Guilford County. Guilford County has an economic blend of agriculture, business and industry and is an urban area. Martin County is a rural county with families whose incomes fall between the poor and lower-middle income range, sometimes classified as the "working poor."

Services and Activities

Both programs provided transition skills to severely economically and academically disadvantaged students. The students received preparation for entering the world of work while completing the vocational education program.

The participants of these programs also received comprehensive assessment services designed to determine their vocational aptitudes, interests, and abilities; a need for service coordination, work history and expectations; and barriers to employment. This information was used to develop individual educational and employment goals.

Educational and vocational needs were addressed on the vocational and transition components of each student's IEP. Teachers and students were given copies of these plans. The Guilford County program placed a major emphasis on limited English proficient students and provided translated materials for parents and instructional aids for students. The primary goal of the Martin County program was to assist interested disadvantaged students in making a successful transition from high school to employment, a local community college or four-year institution, thereby enabling them to continue their education and skill development.

CONSUMER AND HOMEMAKING EDUCATION

Students Served

Programs and Support Services in Depressed Areas
The Vocational Education Information System data showed the 1995-96 enrollment for Consumer Home Economics in grades 6-12 increased 10 percent to 111,566 students. The Consumer Home Economics enrollment represents 18.8 percent of the students taking vocational and technical education in North Carolina; the total Family and Consumer Sciences Program represents 19.9 percent of the students taking vocational and technical education in North Carolina.

Achievements

Achievements in State Administration and State Leadership
Two full-time staff members provided technical assistance, directed curriculum development, and coordinated professional development for the purpose of improving instructional programs in Consumer Home Economics.

The most comprehensive teacher in-service training offered was the Family and Consumer Sciences Summer Workshop for 420 teachers and teacher educators. The most comprehensive student in-service training for secondary students was the FHA/HERO State Leadership Conference for 1,669 students and teacher-advisers.

At the Family and Consumer Sciences Education Summer Workshop, concurrent workshops and presentations were offered in curriculum development, technology, instructional management, and instructional innovations. A focus was on instructional improvement based on effective and visionary practices. The evaluation completed by teachers indicated an overall conference rating of excellent.

The FHA/HERO State Leadership Conference had students participate in competency-based competitive events and testing, leadership workshops, informational and project workshops, and recognition programs. North Carolina is the eighth largest state chapter in the nation and is the third largest vocational student organization in the State.

State staff for Family and Consumer Sciences Education participated in the revision of the Programs of Study. Examination and analysis of program effectiveness and consumer home economics societal trends were initiated in order to prepare the new Programs of Study. The program area description, outcomes, scope and sequence, and course descriptions were revised. The state staff collaborated with teacher, school administrators, business representatives, and other state Family and Consumer Sciences administrators in developing a program area trends analysis and implications document and the Programs of Study.

A draft course blueprint, curriculum guide, and test-item bank were written for a new course, Life Management. The test-item bank for Exploring Life Skills was revised to include portfolio performance

items. Currently all courses have blueprints and test-item banks. Schools can monitor student gain and mastery through the Vocational Competency Achievement Tracking System (VoCATS). New textbooks were selected to support curriculum materials.

Benefits

State staff for Family and Consumer Sciences Education directed and/or collaborated to provide several professional development opportunities on topics such as Reading for Learning, Food Science, and Tech Prep. One Distance Learning by Satellite program was offered statewide on "Making the Career Connection in Family and Consumer Sciences. Lastly, an on-going perpetual mentor-protégé program was initiated to meet the growing need for Family and Consumer Sciences teachers.

Tech Prep

Joint Planning

The Joint Policy Statement for North Carolina Board of Education and North Carolina Department of Community Colleges defines the Tech Prep concept in North Carolina. This document represents joint secondary and postsecondary planning.

Tech Prep education program means a combined secondary and postsecondary program that:

(1) leads to an associate degree or two-year certificate or completion of a registered apprenticeship program of at least two years in length;
(2) provides technical preparation in at least one field of engineering technology, applied science, mechanical, industrial, or practical art or trade, or agriculture, health, or business;
(3) builds student competence in mathematics, science, and communications (including applied academics) through a sequential course of study; and
(4) leads to placement in employment.

The 1994-96 Tech Prep project final reviews were conducted for the purposes of collecting and reporting data on the progress of projects funded under the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. The review provided information for program improvement to Tech Prep consortia and documented the effective use of the funding resource to interested local, state, and federal entities.

Impact of Services

Review Process and Methodology
Local Tech Prep consortia representatives were notified in advance of project review meetings scheduled during the last three weeks of June, 1996. Each consortium was asked to prepare a project budget summary and a structured executive summary of its project's progress in meeting the objectives outlined in its funded proposal. During each review meeting, each consortium was asked to make a 30-minute oral presentation of project activities within previously identified categories of Tech Prep activities. The categories were:

Articulation Efforts,
Collaboration Efforts,
Curriculum Integration Efforts,
Curriculum Improvement Efforts,
Guidance Services,
Staff Development Efforts,
Marketing Efforts
Services to Special Populations Students, and
Achievement Results.

Reviewers from the Department of Public Instruction and the Community College System compared information gathered from the executive summaries and oral presentations to the objectives in the funded proposals.

Additional information was elicited by the reviewers during a 15-minute question and answer period following the oral presentation. Documentation of the achievement results category was required in the request for Proposals for implementation grants and was required as a special focus.

Review Instrument
The instrument was jointly developed and used by the reviewers throughout the review process. A copy is included in the postsecondary appendices.

Analysis
After the review meetings, staff at the Department of Community Colleges and Department of Public Instruction compiled the executive summaries, sample materials produced during the year and reviewers' comments. This information is used for sharing project improvement strategies.

Articulation Efforts

Most consortia have made significant progress in implementing or updating articulation agreements. Most agreements center on granting college credit for certain vocational or technical courses completed as part of the high school curriculum. To date, most efforts have resulted in time-shortened curriculum models rather than skill-enhanced models. In the most general terms, initial articulation efforts rely on a formal examination to verify competency for purposes of granting credit. As the articulation relationship between consortium partners and faculty matures, credit is more frequently granted on the basis of course completion with a specified minimum final grade. Faculty members from the secondary and postsecondary institutions have worked together to review competencies being taught in each course that is being articulated to ensure students are not receiving an overlap of instruction. Efforts have been made to close curriculum gaps between secondary and postsecondary programs. Articulation efforts have taken place in mathematics, English as well as most technical areas. Duplin County and James Sprunt Community College, Asheville-Buncombe Community College and Asheville City, Buncombe County, Madison County Consortia are most notable.

Collaboration

Most consortia have successfully developed a working relationship among secondary education, postsecondary education, and employers. Most have established a local advisory board. Many are working toward creation of work-based learning experiences for students. During this funding period 74% of the consortia reported apprenticeship programs as a part of their tech prep efforts. These relationships have resulted in greater business and industry awareness of Tech Prep and more effective marketing. Some consortia have actively involved employers in curriculum improvement activities, but this crucial activity needs expansion. Wake Community College and Wake County Schools, Nash-Rocky Mount Schools and Nash Community College, Iredell-Statesville Schools and Mitchell Community College, Lincoln County Schools and Gaston Community College have developed noteworthy collaborative models.

Curriculum Integration

Two approaches to curriculum integration are often employed by consortia. The first is establishment of curriculum integration teams to design learning experiences to link academic and technical content. These experiences may be at the course, project, or lesson level. Much of this activity has been undertaken at the secondary level; community colleges have done far less in the way of organized curriculum integration. The second approach to curriculum integration is the adoption of courses with applied approaches to mathematics, science, workplace economics, and communications skills. In partnership with the North Carolina Center for Economics, seven pilot sites have been selected to serve as demonstration sites for integrating workplace economics into the Social Studies, Business

and Marketing curriculum. Teams of teachers have worked together to align these curriculum areas with the workplace economics curriculum . Many consortia have made applied courses widely available. Fayetteville Technical Community College and Cumberland County Schools Consortium have set up a model for all community colleges to follow. Swain County High and Hoke County High School have served as two Advanced Curriculum Integration Sites.

Curriculum Improvement

High schools most often made curriculum improvements by adding applied academic courses and equipping appropriate laboratories. The secondary members of the local consortia spent 46.3% of their resources on curriculum materials and 23.5% on equipment enhancements. Community college curriculum improvements centered on adding new curriculum, deleting or upgrading outdated curriculum, or upgrading equipment. Swain County High School and Southwestern Community College taught Business and Electronic Communications, using telecommunication networking.

Guidance Services

The most common improvement for guidance services is implementation of 4-year career development plans for high school students. The Department of Public Instruction and Community College System developed career planning guides in seven career major areas and distributed over 10,000 copies of this publication entitled "A Guidance Tool for Secondary Courses of Study in College Tech Prep."

In the best cases, guidance services are characterized by assessment of career interests and aptitudes, one-on-one counseling, parental involvement, and annual review. Many consortia are using Tech Prep funds to purchase and deploy computerized career guidance systems. Many colleges are working with high schools to offer college placement examinations to students prior to high school graduation. This provides students an indication of their readiness to enter college programs, and if done early enough, can be prescriptive of corrective actions needed prior to entering college. Jackson County Schools and Southwestern Community College have installed an innovative telecommunications system to deliver these types of services. Richmond County Schools and Richmond Community College have established a comprehensive annual transcript analysis to help keep students focused upon the completion of their four-year plan.

Staff Development
Much professional development for faculty, counselors, and staff has taken the form of conference and workshop attendance. Many consortia have provided curriculum integration training and on-site tours of business and industry. Most consortia have established a return-to-industry summer internship program. A significant amount of activity has been organized jointly for academic and technical faculty and for secondary and postsecondary faculty and staff. The Department of Public Instruction and the Department of Community Colleges sponsored the annual Tech Prep Conference which was attended by over 800 participants from 15 different states.

Marketing Efforts
Specific marketing strategies included publication of brochures, civic presentations, and advertising through billboards, newspapers, and electronic media. Most consortia are targeting internal and external markets. More are developing a comprehensive long-term marketing plan. Those consortia that have tried to assess the effectiveness and penetration of marketing activities learned of a need for a continuous maintenance of effort to keep their Tech Prep program visible. Central Piedmont Community College and Charlotte-Mecklenburg Schools have developed an outstanding strategic plan on marketing.

Special Populations
Some of the services consortia provided to special populations students included career development plans, individual education plans, special support teams, tutorial services, and services during the transition from high school to community college. A general lack of consistency in services to special populations students was evident in the reviews. Catawba County Schools and Catawba Valley Community Colleges has established a noteworthy Tech Prep Transition Plan and Pitt County Schools, Pitt Community College and East Carolina University Medical School have established an innovative tech prep work-based learning program for special population students.

Achievement Results
Most consortia have designed systems for collecting baseline student achievement data and monitoring progress on key indicators. Data elements most frequently collected include change in Tech Prep enrollment, gains in student grades, gains in postsecondary enrollment, and decreases in dropout rates. During the reviews there was evidences consortia are making progress in changes in the percentage of students needing remediation at the colleges. There were 76,104 high school students declaring tech prep as a course of study. The SREB Assessments, using NAEP items, were used by 78.9% of the consortia this year to document student academic progress in reading, mathematics, and science. Over 10,000 student surveys and transcripts analysis were completed. All

mathematics, science, English and technical studies teachers were surveyed about the teaching learning environment in these consortia. The results of this assessment were not available at the time of this publication, but will be forwarded upon its availability. Significant progress has been made in this area. Charlotte-Mecklenburg and Central Piedmont Community College, Cumberland County Schools and Fayetteville Community College have models for others to follow.

Integrating Applied Academics into Vocational/Technical Education Programs

Efforts to promote curriculum integration of academic and vocational/technical education have focused on extensive professional development for academic and vocational/technical education teachers, as well as including integration activities in the development of curriculum guides.

Many statewide workshops for vocational and technical teachers and administrators have focused on integrating academics. Participants have prepared and exchanged lesson plans and utilized a network that serves to cause change in the classroom. In addition, other publications about integrated strategies have been distributed. Activities included the following:

Activities

Workshops	Participants
• Four Reading for Learning Workshops (2 days each – SREB-HSTW)	110
• Seven Integration of Academics and Vocational/Technical Education Workshops delivered via Information Highway	
• 3 broadcasts; 2 hours each about VoCATS Implementation	
• Tech Prep Conference	800
• Business and Marketing Education Curriculum Integration	338
• Reading across the Curriculum in Family and Consumer Sciences	27
• Integrating Reading in Health Occupations, Medical Math, and	475
• National Health Care Skills Standards Integration	

Curriculum Development

• Distribution of two publications: Improving Math Skills through Business and Marketing Education	2,500

Curriculum Development continued — Participants

- Publication of five curriculum supplements about academic integration in Exploring Life Skills, Foods and Nutrition, Food Sciences, Parenting and Child Development and Teen Living
- Distribution of revised test item banks with rubrics related to reading, writing, and mathematics — 220

Academies

- Establishment of health science and finance academies
- Participation of a North Carolina team in the National Health Science Career Path Model Summit. Four sites piloting a K-12 career model which includes integration, standards, and strategies. — 220

Publications

- Development and distribution of "A Guidance Tool for Secondary Courses of Study in College Tech Prep"
- Development and distribution "Effective Practices" in Workforce Development — 5,000
- Development and distribution "Educators Return to Industry" — 5,000

Technical Assistance

- Consultative services to 26 SREB-High Schools That Work sites about implementation of ten essential practices. Involvement of high school math, science, English and vocational/technical education — 200

Combined Services

Through the Southern Regional Education Board sites, efforts were made to combine challenging academic courses and modern vocational and technical studies to raise the achievement of career-bound high school students. These sites have a firm belief that all students can master complex academic and technical concepts if schools create an environment that encourages students to make the efforts to succeed. (Note prior section entitled Southern Regional Education Board/High Schools that Work). In addition, administration of the SREB/HSTW NAEP assessments (reading, mathematics, and science) to over 3,500 senior career major completers in 50 high schools was conducted to track school improvements. A faculty survey of over 2,419 high school teachers of math, science, English and vocational/technical education about teaching and learning environments for career major completers was conducted.

Services to Special Populations

Assisting special populations and integrating curriculum were highlighted for teachers and special populations at the 1995 Summer Workshop. Sessions were presented to program area participants and special populations coordinators. Overviews of enhancing students' learning and performance through integrated curriculum, diverse methodology, and a variety of assessment measures were discussed.

Impact

Participants examined integration models and practical strategies that addressed core basic skills, national skill standards, SCANS skills, and industry approved vocational/technical subject matter. The strategies included interactive skills, hands-on activities, extended time, oral communication, collaborative efforts among staff, in-service training on learning styles, individual and small group discussions, and utilization of computer-assisted instruction and networking through INTERNET.

LEAs have reported numerous positive results from integration efforts. The impact on programs, teachers, and students included: improved student attendance and retention; lower dropout rate; curriculum enhancement/improvement; broader vision among teachers of all disciplines; increased achievement for members of special populations; hands-on approach to learning; inclusion theory and practice to aid in the transition from school to work; and creation of school environments that encourages students to succeed. (Information on the numbers of students served is found in Appendix 1.)

Career Guidance and Counseling

Programs

In 1995–96, four statewide in-service activities were held for approximately 390 Industry-Education Coordinators (IECs) and Career Development Coordinators, both new and experienced. Individual programs of work were developed. Priorities of Workforce Development were provided as a guide for program emphasis. IECs and Career Development Coordinators advised, counseled, and provided support services for students in the areas of program planning, career guidance and counseling, job placement, and postsecondary education.

Activities

A five-day session of the annual Workforce Development Summer Workshop was devoted to industry-education coordination and career development. Participants were given information on workforce preparedness, career assessment, career development plans, performance standards, career development activities, National Career Development Guidelines, the JobReady Development System, job placement, apprenticeship and other work-based learning strategies, and regular classroom instruction.

Descriptions of Program/Services

Industry-Education Coordinators collaborated with LEA teams through the JobReady initiative to coordinate the development of a total comprehensive career development system for all students in North Carolina. The process included elementary, middle school and high school orientation, interest surveys, aptitude tests, career planning activities, connecting activities and work-based learning experiences.

Some school systems provided shadowing, internship, cooperative experiences and apprenticeship programs for students to experience a job setting and acquire information relative to career interests and education plans.

Seniors in vocational and technical education courses were provided informational packets about career/job and postsecondary training information.

Career Days and Job Fairs provided students with career information opportunities to interview employers for job placement. Computerized career information systems were used extensively in career guidance and counseling programs.

IECs and Career Development Coordinators were involved in developing and facilitating the use of labor market information, curriculum guides for parents and students, and program brochures for public information. IECs and Career Development Coordinators became involved in establishing business/educational partnerships. These partnerships involved businesses in education efforts by providing services support, equipment, apprenticeship opportunities, and money for various projects.

IEC and Career Development programs and services were evaluated at the LEA level. A state approved performance appraisal instrument was used for evaluative purposes.

Comprehensive Developmental Guidance Programs using the National Career Development Guidelines.
Industry Education Coordination continued to work cooperatively with the State Occupational Information Coordinating Committee (SOICC), and the School Counseling Division to facilitate the use of the occupational information materials, assessment instruments, and the promotion of career development activities. This included comprehensive developmental guidance programs using the National Career Development Guidelines in all LEAs. These guidelines have been endorsed by the State Board of Education.

The use of career development portfolios and career planners for all students was also promoted. Further detailed information can be obtained from the state career development consultant.

Appendices

Appendix 1	Enrollment Table
Appendix 2	Performance Standards
Appendix 3	Performance Standards Report

OMB No. 1830-0503
Exp. 01-31-97

SECONDARY ENROLLMENT; PERIOD COVERS July 1995 - June 1996

STATE: North Carolina NAME: Sarah Hawes PH. 715-1649

OCC PROGRAM AREA	TOT ENR	DUPLICATED TOTAL MALE	DUPLICATED TOTAL FEM.	DUPLICATED REG VO-TE-ED	DUPLICATED DIS-ADV	DUPLICATED LEP	DUPLICATED DIS-ABLED	DUPLICATED CORR	DUPLICATED SP/DH /SPW	DUPLICATED SEX EQ (NON-TRAD)	DUPLICATED ADULT	DUPLICATED COM – LETER 1995
AGRICULTURE	25008	19856	5152	13298	8822	49	2839			134		947
MARKETING	21115	9161	11954	12307	7803	72	933			114		1827
CONS/ H'MAKING ED	71053	19210	51843	35734	29519	385	5415			899		5861
OCC HOME EC	6368	1058	5310	2769	3121	22	456			134		872
TRADE & INDUSTRY	59004	49722	9282	31517	21424	217	5846			504		4524
HEALTH	15927	2620	13307	10890	4609	51	377			206		1889
BUSINESS	129267	55237	74030	85491	38120	845	4811			1185		4416
TECHNOLOGY ED	21883	18238	3644	12900	7052	138	1792			55		1171
GRAND TOTAL	349624	175102	174522	204906	120470	1779	22469	987	356*	3241*		21507

*number served by funded grants

OMB No. 1830-0503
Exp. 01-31-97

SECONDARY ENROLLMENT; PERIOD COVERS July 1994 - June 1995

STATE: North Carolina NAME: Sarah Hawes PH. 715-1649

	UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)								
	LINKAGE			PLACEMENT					
OCC PROGRAM AREA	TECH-PREP	CO-OP	APPR	CONT ED	EMPLOYED		MIL	OTHER	CURRENT TEACHERS
					R'LTD	OTHER			
AGRICULTURE	9228			(947)	(1114)	(372)	(62)	(6)	(362)
MARKETING	6439			(1827)	(1689)	(810)	(97)	(39)	(352)
CONS/ H'MAKING ED	21152			(5861)	(4640)	(3565)	(269)	(179)	(1197)
OCC HOME EC	2194			(872)	(893)	(539)	(50)	(52)	(265)
TRADE & INDUSTRY	20481			(4524)	(4779)	(1952)	(372)	(37)	(1151)
HEALTH	3722			(1889)	(1130)	(987)	(49)	(17)	(241)
BUSINESS	31892			(4416)	(2823)	(2476)	(150)	(52)	(1968)
TECHNOLOGY ED	6803			(1171)	(791)	(666)	(66)	(8)	(717)
GRAND TOTAL	101911	10046	604	(21507)	(17859)	(11367)	(1115)	(390)	(6253)

Secondary Vocational and Technical Education Long–Range Performance Standards Approved on 6 January 1994 by the NC State Board of Education

1. Each student enrolled in vocational and technical education, grades 9-12, will have a career development plan (CDP) on file which includes academic and vocational and technical education courses appropriate for his or her designated career goal.
2. If the enrollment of members of special populations in any vocational and technical education program area differs more than a third from the overall special populations percentage enrolled in all vocational and technical education programs in that school, the enrollment must be justified by documentation of student choices as evidenced by the career development plan (CDP).
3. Eighty percent of all students completing each vocational and technical education course will have mastered 80% of the core competencies designated on the statewide course blueprints.
4. Eighty percent of all students completing each Level I or non-sequenced vocational and technical education course will have gained a minimum of 60% of the difference between the pretest scores and the total possible score as measured by valid pretest and posttests of all core competencies designated on the statewide course blueprint.
5. Eighty percent of all students completing each Level II vocational and technical education course will have gained a minimum of 40% of the difference between the pretest score and total possible posttest score as measured by valid pretests and posttests of all core competencies designated on the statewide course blueprint.
6. Seventy percent of all vocational and technical education completers as reported by program areas for each school will enter further training or education, including that received in the military or on-the-job.
7. The completer unemployment rate for those students seeking full-time employment will be lower than the county's youth unemployment rate as reported by job skills-related program areas by school.
8. Of completers finding full-time employment, 70% as reported by job skills program areas by school will be employed in jobs related to their vocational programs.

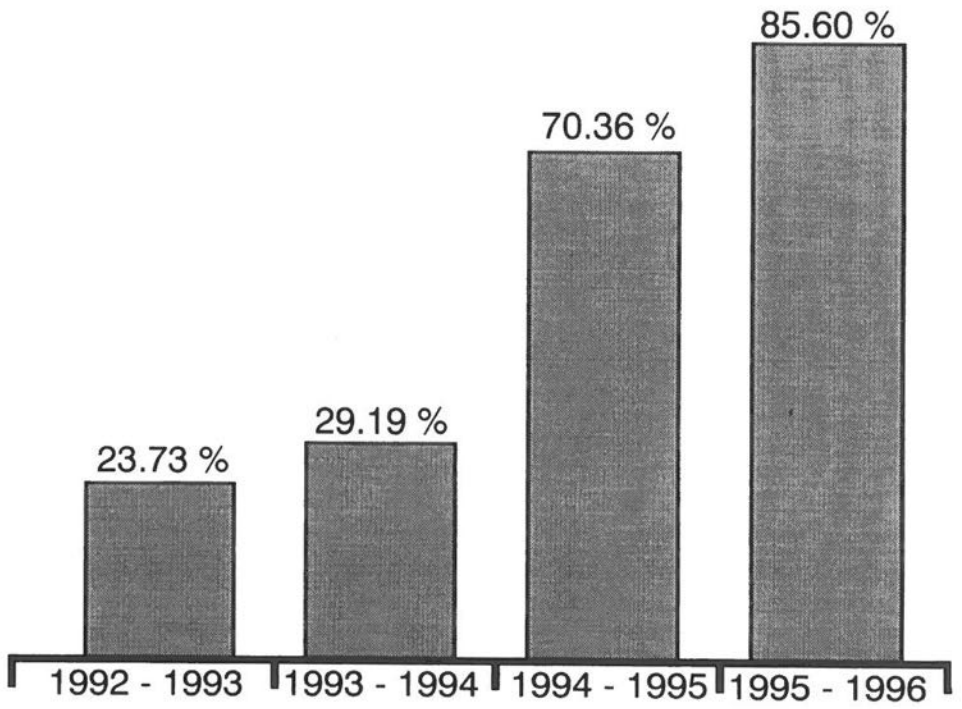
Workforce Development/Vocational Education

Long-Range Performance **Standard One:**

Each student will have **a Career Development Plan (CDP) appropriate for his or her designated career goal.**

Trend Data for School Years 1993-96
Statewide Summary of Performance Standard One

Percent of all Program Areas Meeting Performance Standard One



(Program Areas Were Counted Once Per School)

Appendix 3

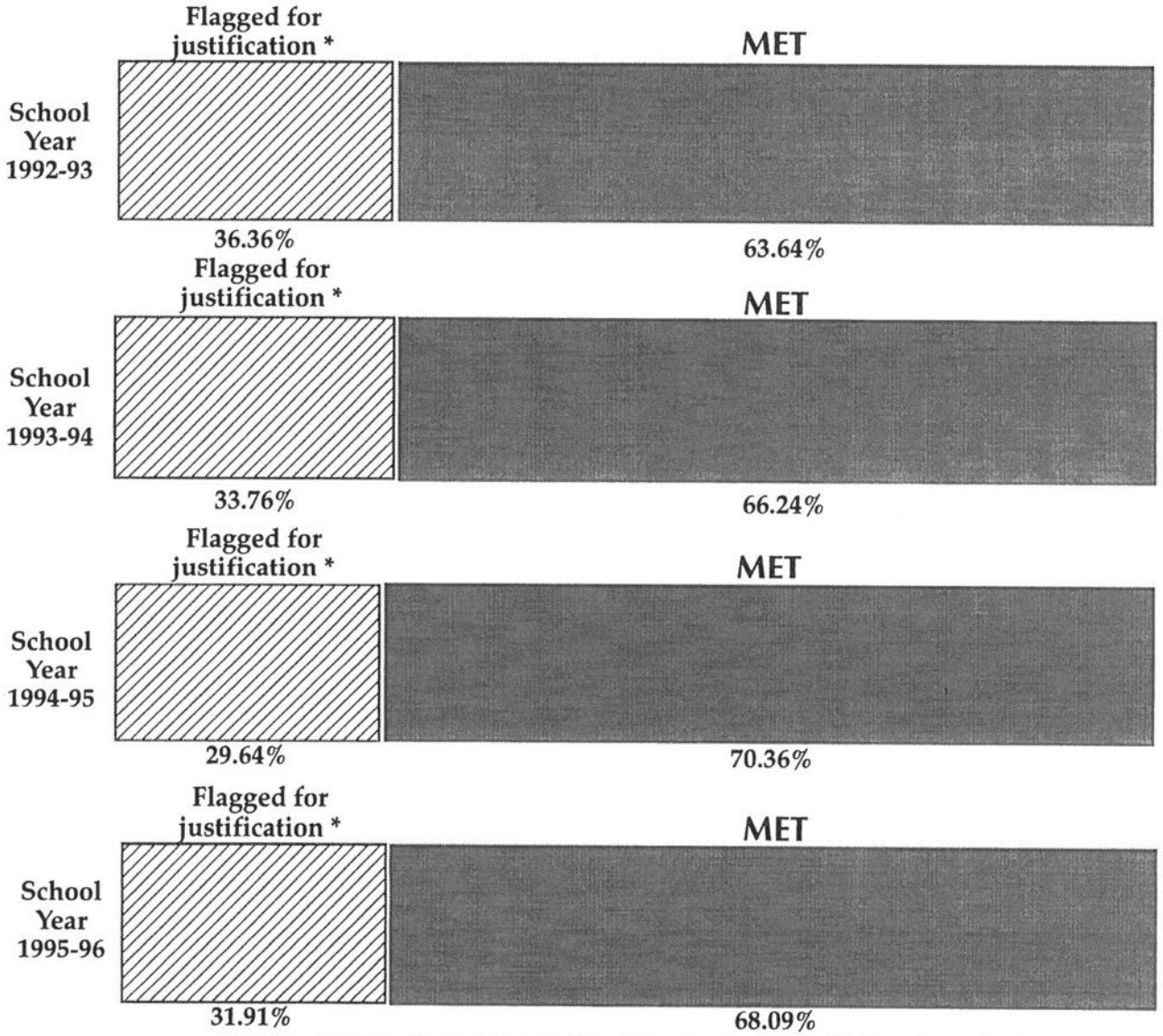
Workforce Development/Vocational Education

Long-Range Performance **Standard Two:**

If the **enrollment of members of special populations** differs more than a third in that school, it **must be justified** by documentation in the CDP.

Trend Data for School Years 1993-96

Statewide Summary of Performance Standard Two



(Program Areas Were Counted Once Per School) *Enrollment may be justified based on students' CDPs.

Workforce Development/Vocational Education

Long-Range Performance
Standard Three:

Eighty percent of all students completing each vocational course will have mastered 80% of the course competencies.

Long-Range Performance
Standard Four:

Eighty percent of all students completing Level I vocational courses will have gained 60% from a pretest to a posttest.

Long-Range Performance
Standard Five:

Eighty percent of all students completing level II vocational courses will have gained 40% from a pretest to a posttest.

Trend Data for
School Years 1993-95
Statewide Summary
Performance Standard Three, Four, and Five
These summaries can be found in prior VoCATS data publications.

School Year 1995-96

During school year 1995-96, VoCATS data were compiled only at the school system level. Statewide data were not compiled during 1995-96.

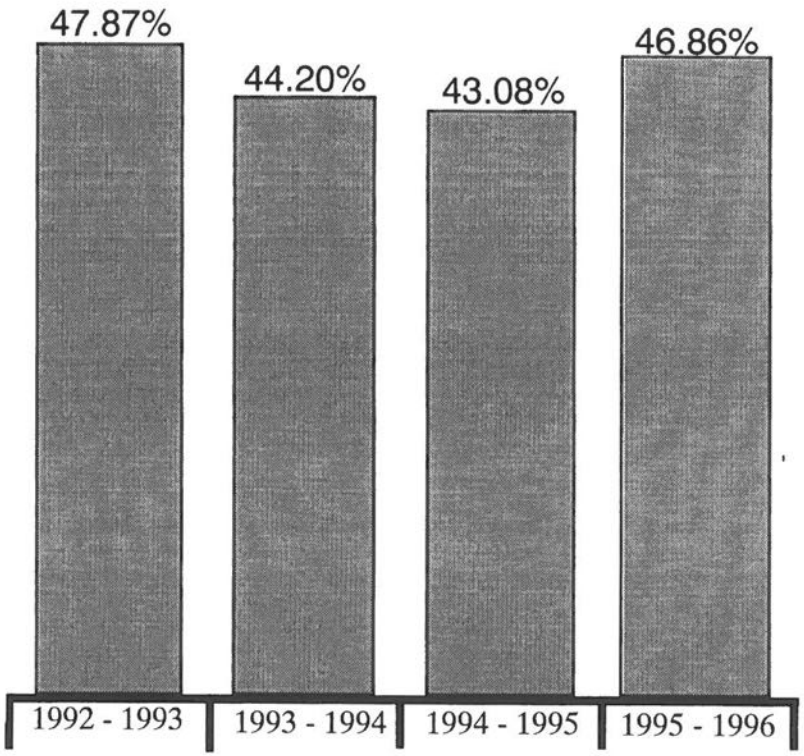
Workforce Development/Vocational Education

Long-Range Performance
Standard Six:

Seventy percent of vocational and technical education completers will enter further training or education.

Trend Data for
School Years 1993-96
Statewide Summary
Performance Standard Six

Percent of all Program Areas Meeting Performance Standard Six



(Program Areas Were Counted Once Per School)

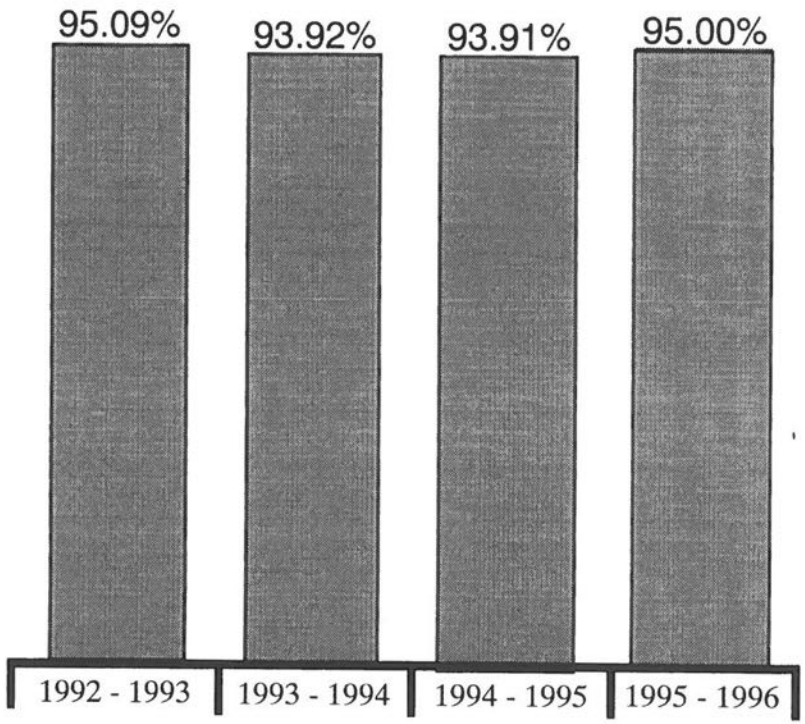
Workforce Development/Vocational Education

Long-Range Performance
Standard Seven:

The **completer unemployment rate** will be **lower than the county's youth unemployment rate** reported by job skills-related program areas.

Trend Data for
School Years 1993-96
Statewide Summary
Performance Standard Seven

Percent of all Program Areas Meeting Performance Standard Seven



(Program Areas Were Counted Once Per School)

Workforce Development/Vocational Education

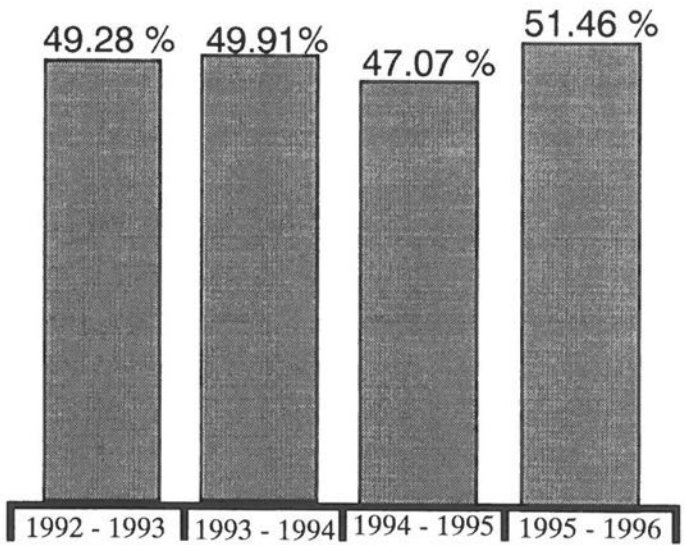
Long-Range Performance
Standard Eight:

Seventy percent of completers* will be employed in jobs related to their vocational program.

* Completers finishing a technical sequence and finding full time employment as reported by job skill program areas by schools.

Trend Data for
School Years 1993-96
Statewide Summary
Performance Standard Eight

Percent of all Program Areas Meeting Performance Standard Eight



(Program Areas Were Counted Once Per School)

North Carolina Community College System

Vocational Education Performance Report

Program Year 1995-1996

"It is the intent of the General Assembly that vocational education be an integral part of the educational process." The State Board of Community Colleges shall administer, through local boards, a comprehensive program of vocational education which shall be available to all students who desire it without regard to race, color, national origin, sex, age, or disability.

North Carolina Community College System
Postsecondary Vocational Education
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Introduction

The North Carolina Community College System was founded by the North Carolina General Assembly in 1963. Presently there are 58 community colleges in the system which offer a host of programs to meet the needs of individuals, businesses and industries. These programs range from one quarter to two years in length. In addition, single courses are offered to update job skills and for personal enrichment.

The primary emphasis of every college is on-the-job training, and most programs are in vocational and technical areas which prepare students for entry-level positions in skilled and technical occupations. Diplomas are awarded to graduates of vocational programs one year or more in length, and certificates are awarded to graduates of shorter programs. Two-year technical programs lead to an associate degree in applied science.

Programs are also available to help adults learn to read, write, or do basic mathematics, earn a high school diploma or its equivalent, strengthen academic abilities, and complete most of the courses needed for the first two years of a baccalaureate degree. Financial aid officers assist students with loans, scholarships, and work/study programs. Since colleges are within commuting distance of most of the state's population, there are no dormitories on any campus.

More than 779,000 individuals are taught each year in the North Carolina Community College System. This is nearly ten percent of the total population of the state. In addition to instruction delivered at the 58 community college campuses, many programs are offered at hundreds of off-campus sites. The students are mainly adults, but some are out-of-school youth beyond the age (16) of public school compulsory attendance. The diversity of students reaches into all socio-economic levels. Some students enter the college directly after high school graduation, while others may enter after having worked for a period after graduation. Many of its students enter the community college to pursue additional specialized training after having already attained baccalaureate or even graduate degrees. Many of its students enter later in life after successful careers by taking advantage of the wide array of personal development programs offered on many of the campuses and outreach centers. Figure 1 presents the total program year 1995-1996 enrollment in technical, vocational, general education, and college transfer programs. This report presents information on the 108,708 students who were enrolled in technical and vocational education programs in accordance with the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 for that period.

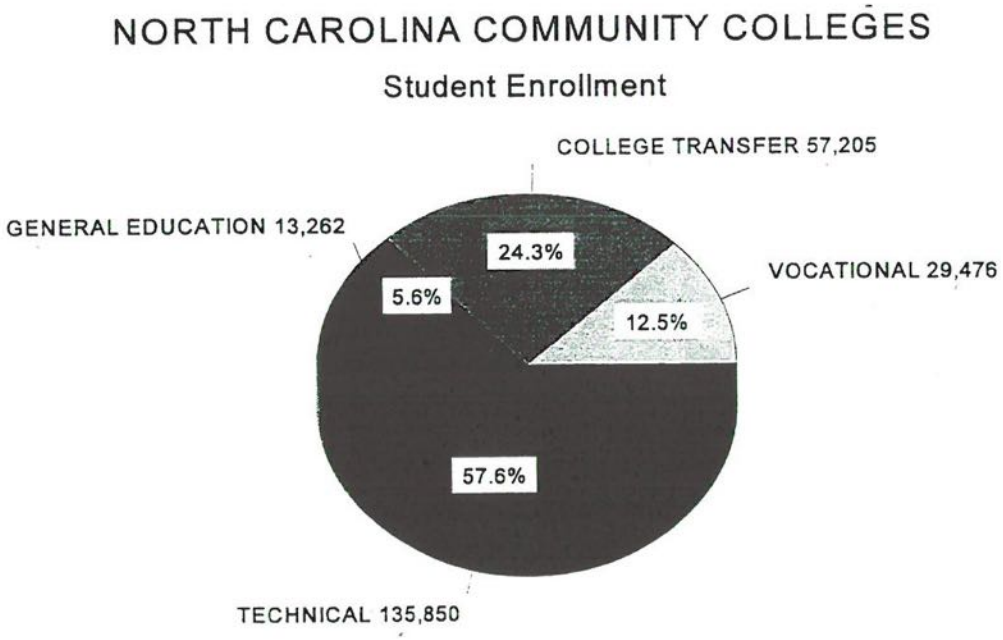

Figure 1 - Curriculum Enrollment 1995-1996 Program Year

Vocational Education Performance Report

Program Year 1995-1996

I. Performance Standards and Core Measures (Title I, Part B, Section 115 and 116; Title 5, Part B, Section 512).

The performance measures and standards for all 58 community colleges of the North Carolina Community College System were implemented for the 1995-1996 school year. Once data were collected and interpreted over the span of three years, the System Office held four regional meetings across the state to instruct the Perkins grant recipients on the usefulness of this data and its influence upon their eligible programs. The Committee of Practitioners (Postsecondary) met twice during the year and sanctioned the standards developed from the measures (Appendix A).
The measures and standards of performance are:

1 - To record the percentage of required credit hours completed for the curriculum, i.e., the number of students who completed 25%, 50%, 75%, or 100% of the courses needed for curriculum completion/graduation.

The standard is set at 15% below the mean percentage of the System average. The standard is set in the 76-100% column in order to measure those students nearing the completion of their curriculum programs. A student cohort, or those students identified as enrolled in subsequent years, will be followed over a three-year span. For 1994-1995 (the latest complete year of data), the standard for those students enrolled in 76-100% of the credit hours needed for completion was 32%; 17 community colleges fell below that standard.

2 - Report the rates at which vocational education students are required to take and pass remedial, or developmental, basic academic courses, such as English and mathematics, and the rates at which vocational education students take and pass these as well as general education and related courses.

The standard is set at 15% below the mean percentage of the System average. For 1994-1995, 69% was the standard for remedial passing rates; 5 community colleges fell below this standard. In general education, 78% was the standard for passing rates, and 2 community colleges fell below.

3 - To report retention rates by credit hour. Students are considered to be retained if they enrolled in the Fall quarter of the first recorded year, did not complete or graduate in that quarter, and completed at least one additional course during the subsequent two school years. A student cohort of identified students will be followed for no less than 3 years.

The "snapshot" taken of the 1994-1995 school year shows the largest percentage of enrollment by credit hour in the 12 credit hours or greater category at 83% and the next largest percentage in the 5 or fewer credit hours at 10%. A column added to the data this year reflects the "stop outs" or the number of students who did not re-enroll from last year. 86% of the students in last year's cohort returned to class.

4- To report the number of special population students needed to meet the standard by subtracting the difference of special population students *enrolled* in technical and vocational programs from the total special population students enrolled in all programs. To discover if the special population student enrollment in technical/vocational programs differs more than a third from the overall percentage of special populations in all curriculum programs. This standard is in keeping with the secondary criteria for special populations.

The standard is to find the difference between enrollment by subtracting the special populations in technical/vocational programs from the total special populations in all curriculum programs. Then this difference will be subtracted from the total special populations in all programs divided by three. The formula is (A-B) - (A/3). Those community colleges showing negative numbers will be below the standard by the actual number of students needed to meet the standard for that particular year. For 1994-1995, 25 schools did not meet the standard; however, only 12 community colleges had over 100 special population students below the numerical standard for enrollment in technical and vocational programs.

For the *completion* measure, compare the difference in the percentage of special population technical/vocational completers with the percentage of all completers in technical/vocational programs.

The standard is set at 15% below the mean percentage systemwide. For 1994-1995, with the standard at 85%, 21 community colleges fell below the standard for special population completers in technical and vocational programs.

As the System Office collects the 1995-1996 data, we will analyze and compare the past two years' information and especially study measures 1 and 3 which will require three years' worth of data.

We are continuing our efforts with and assistance to the Governor's Commission on Workforce Preparedness, North Carolina's state advisory council on vocational and applied technology education, as it prepares its common performance management standards for all workforce training initiatives in the state. The North Carolina Community College System has been instrumental in establishing these standards, and we, working within our Federal guidelines, will continue our efforts to conform to, as well as to augment with, these standards.

II. Postsecondary/Adult Occupational Programs, Services and Activities (Title II, Part C, Section 231-232).

The 1995-1996 postsecondary enrollment for the North Carolina Community College System is found in Appendix B. This is a specific enrollment list for the Perkins-eligible student. The following appendix C lists the special curriculum student enrollment report for 1995-1996. Appendix D lists all of the community colleges in the system. All member institutions are two-year postsecondary community colleges offering 283 total technical and vocational curricula, general education programs, as well as college transfer programs offered by most of the member colleges. Each community college is committed to providing a comprehensive educational program to the citizens of North Carolina. Each college is uniquely chartered to best meet the educational and economic development needs of its local community or service area. The department provides curriculum standards to assure that each program meets systemwide regulations.

During the 1995-1996 program year, funds under Title III, Part C, Section 235, were distributed to 54 eligible community colleges in North Carolina. These funds are grouped into service or program areas. These are represented in Figure 2 below. The percentages shown represent the approximate level of funding used in each category. These categories do not represent a total list of all services and programs provided; they were compiled to facilitate reporting. Brief examples of programs or services are offered for each category. Figure 3 presents the number of community colleges spending Perkins funds in each category.

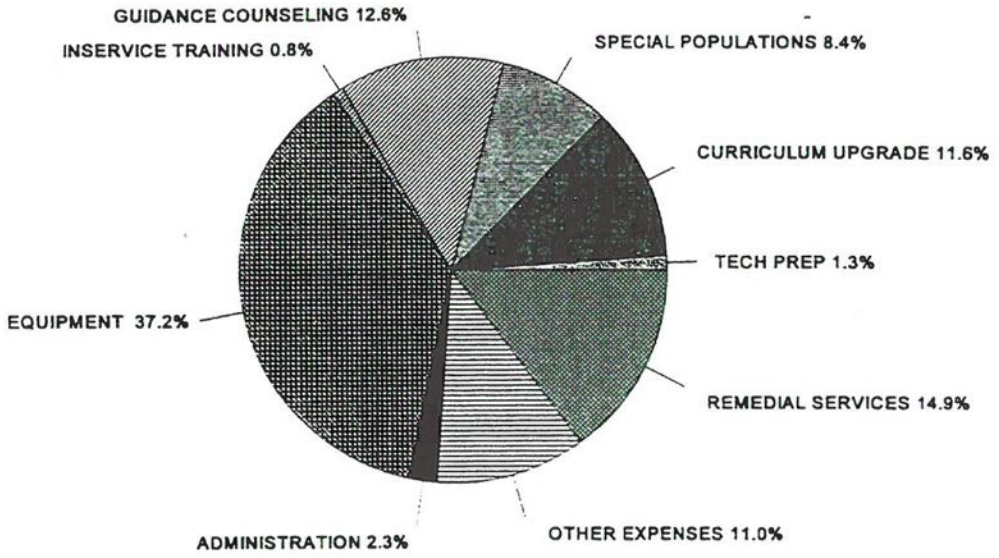

Figure 2 - Perkins Basic Allocation (Postsecondary)

Upgrading Curriculum. To assure continued economic development and to be consistent with the intent of Perkins provisions, improved curriculums are an important pursuit in the community colleges. Eighteen community colleges used Perkins funding to upgrade their programs. Several exemplary approaches to upgrading curriculum follow. One community college upgraded and expanded its Cosmetology program by moving to new facilities, enhancing the curriculum, and adding a full-time instructor. Similarly, a regional Paralegal Technology program was expanded to include two counties' access to paralegal education programs.

Equipment. The North Carolina Community College System, in its capacity to stay current with state-of-the-art equipment. Therefore, much of the Perkins grant money was used to purchase equipment. Forty-four community colleges took advantage of this area. One school opted to acquire two computers for the Testing Center with ten workstations to accommodate the use of the computers. These are used to assess program participants' levels of self-esteem so that corrective measures may be taken to ensure student retention and reach their goals. The Academic Support Center at this school provides developmental courses in reading, English, and study skills. Due to the numbers of students being placed in the Center's programs, the instructional staff have identified several computer programs to increase the efficiency of student learning and without affecting the effectiveness. The mini-lab is used for students to supplement classroom time and to provide additional tutoring and practice in reading, vocabulary, arithmetic, and English grammar. To facilitate the enrollment of deaf students, a

Telephone Device for the Deaf is being installed, and for visually impaired students, a low vision reading device, a closed circuit television which includes a camera, monitor, lenses, and high intensity illuminator, has been purchased to magnify increased contrast to improve viewing.

Inservice Training. Faculty members in the community college system are encouraged to enroll in professional development programs to assure their students receive the best education and training possible. Seventeen colleges offered their faculty and staff opportunities for inservice training to help meet this need. One community college has developed awareness training for vocational and academic instructors. The training points out the challenges faced by students in the program. Two training sessions are held and each instructor works to ensure a climate where the needs of individuals of diverse backgrounds are recognized, understood, and addressed to their experiences at the college. Another college trained instructors in the use of multimedia equipment and software in order to teach using the North Carolina Information Highway and for use in traditional classroom instruction.

Guidance & Counseling. Funds used for guidance counseling were incorporated into 27 community college budgets. One school not only used funds to supplement a counseling position, but it also used monies to assess, test, and admit students into eligible programs. Another offsets psychological testing and consulting fees for students with learning disabilities. A third college promoted assistance to entering and enrolled students in making and implementing informed educational and occupational choices and increasing their awareness of local, state, and national occupational, educational, and labor market needs and trends through individualized counseling, research, and computerized assessment.

Remedial Services. Twenty-eight community colleges used Perkins funds to provide remedial services to students in eligible technical and vocational programs. Remedial mathematics and English were two large areas of concern for one community college. Tutoring services and skills labs were used to provide students access to the eligible programs of choice. One school has developed a mathematics curriculum on videotape designed for deaf and hearing disabled students.

Tech Prep. Five community colleges used Title II funds for Tech Prep activities. A further description of systemwide Tech Prep activities may be found in this report under Section X. One school offered release time to a faculty member to devote 50% of his/her time to facilitate and coordinate Tech Prep duties. Another is developing better articulation agreements between the secondary and postsecondary components in

its local education area. A third is developing a high school database to follow the promotion of identified Tech Prep students into the postsecondary programs.

Supplemental Services. Forty community colleges used Perkins funds to accommodate students, especially special population students, with increased supplemental services. Examples of this type of service include full- and part-time interpreters, tutors, readers, note takers, and classroom aides. The academic support center at one school includes the use of computerized assessments of students in reading in order to determine specific academic deficiencies relative to reading comprehension and vocabulary skills. Assistance is also provided to help students identify, understand, and acquire appropriate financial aid. Another college paid for career development software to guide students into occupations.

Special Populations Coordinator. Twenty-six community colleges chose to fund a staff position called Special Populations Coordinator to assist in providing opportunities for equal participation of students with special needs. The person in this position assures that the needs of special population students are met and ensures that the college where they are enrolled remains sensitive to future needs. These are often part-time jobs performed in conjunction with other duties. The coordinator may be in the counseling department or a dean or other administrator. Self-esteem and underdeveloped personal skills have been proven to cause students to underachieve and drop out without realizing success in an academic environment. A community college has chosen, under the auspices of student development services, a comprehensive program, including personal skills mapping using computerized software to predict success. Intervention and prescriptive strategies facilitate student success and/or dropout prevention.

Apprenticeship. While apprenticeship is clearly a useful component of Perkins in regard to Tech Prep, as well as the mandate to educate in all aspects of a chosen industry, none of the community colleges used funds in this specific category for 1995-1996.

Administrative. Perkins funds was used by 22 community colleges for administrative purposes. These services were provided on a prorated basis by existing college personnel. Just over 2% of the allocated money was used statewide. The administrative responsibilities do not increase with the expanding expenditures of other Perkins line items; thus, a number of the administrative duties are handled by specific personnel within their job descriptions or they are absorbed without additional pay into existing duties.

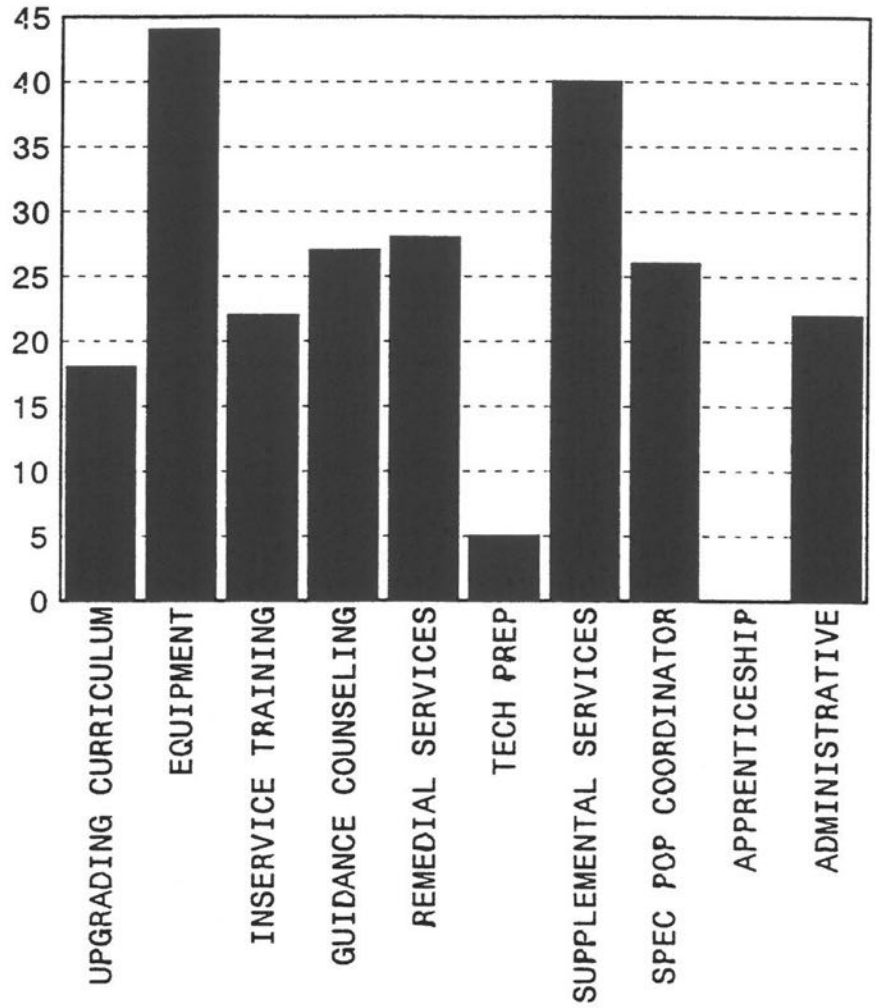

Figure 3 - Number of Community Colleges Expending Perkins Funds in Each Category (54 of 54 reporting) 1995-1996

III. Single Parents, Displaced Homemakers, and Single Pregnant Women (Title II, Part B, Section 221)

In 1995-1996 single parents/displaced homemakers/single pregnant women numbered approximately 10,600 at the 45 colleges that received Perkins grants especially for this target population.

Description of Services. The program used 89% of single parent funds for direct, material support of students. Services included child care, student transportation, tuition, and instructional materials required for class participation. Eleven percent of the funds were used statewide to provide counseling, support, and information to the single parent population. In addition, most colleges contributed other college funds to maintain a one-on-one contact with the student at least once a month, and frequently bi-weekly or even weekly. Grant coordinators spend between 25% and 50% of their time on single parent activities, but charge at most a maximum of 20% of their salaries to Perkins money. There is a growing trend for colleges to donate a single parent salary and not use Perkins money at all for this purpose. Further, some colleges have established small scholarship programs to help students with child care, a practice unheard of ten years ago when federal vocational education money first became available for such.

In 1995-96 the North Carolina Community College System used grant funds to serve 1,089 students with child care and 912 students with transportation, instructional materials, and tuition. The grant is administered by the State Department as two programmatic components:

1) Child Care.

Forty-three colleges offered child care to the target population at a cost to the grant between $41 and $55 per week per child, depending on the number of quarters the college offered this help. The service helped student retention stay at 76% (as measured from fall, 1995 to fall, 1996). The retention rate of students receiving child care from Perkins was higher than for those receiving the same assistance from other sources (65%). State staff hypothesize that the Perkins' greater success comes from the personal and frequent contact that students enjoy with grant staff. That Perkins money has been well used is demonstrated by the fact that students needing, but unable to obtain child care were far less likely to stay in school than either of the foregoing groups; retention was 40% for those needing, but unable to get, child care.

2) Assistance with Transportation, Tuition, Books and Fees.

This support was available at 28 colleges, costing the single parent grant an average of $72 to $129 per quarter, again depending on whether or not the grant operated during summer quarter. Retention for these recipients was 72%. By comparison, students who received this kind of help from other sources stayed in school at a lower rate, 66%. Those who were unable to receive transportation, tuition, or fees from any source were very unlikely to stay in school: 20%.

Special Delivery Methods.

Community colleges in the North Carolina constellation chose to use the Perkins Single Parent money for direct support of students because they know that without the financial means, this population is simply unable to come to school. Counseling and other human services for single parents are borne almost entirely by the college from other funds. Once Single Parent grant support is awarded, one-on-one counseling remains as the greatest influence and retention factor. Some colleges participating in the grant make a point to see the beneficiaries at least every two weeks, or more if indicated. A counseling obligation often goes into a contract that the local coordinators sign jointly with students. In fact, students who experience special difficulties are much more likely to seek the grant coordinator in favor of all other counselors in the student personnel office, particularly if it is child care that the student receives. It seems that the child forms a palpable bond between student and coordinator that no other counselor can enjoy. Even if such contact is only ten minutes per session, it has a positive effect on retention.

Some colleges use off-campus visits to museums, parks, and other leisure activities, paid for by local funds, simply to get single parents to meet one another and to enjoy briefly an escape from their daily pressures. Once these students find others with common concerns, they bond and help keep each other in school when pressures become too intense to handle alone. They pick up where no counselor, no matter how sensitive, can respond as adequately as a peer.

The state office now has a history of retention rates for all programs on file in its office. Every year each college receives a report of its Single Parent retention compared to that for the program state wide. If the local Single Parent program is five points below the average for the State, then it is required to state in its proposal for the coming year what special practices it will employ to bring its retention up to the statewide average.

The method appears to be working well. One college responded with particularly meaningful plans which increased retention to 80%. It had been in the sixties for several years in a row. The coordinator now works out a complete employability plan for each student before admitting him or her to the single parent program. The plan requires goal setting, reality checks, and time management discussions. The coordinator furthermore requires students to report to his office twice a month. In addition he actively solicits and receives monthly academic reports from instructors and then contacts students with problems. Finally, the coordinator has organized his own tutoring program for students, a service which had not existed previously on his campus.

The grant remains an efficient vehicle for keeping students in school. Although the colleges experience increasing applications and decreasing resources, they often can help as many fifty to ninety students with tuition and books, sometimes for less than $100 per quarter. Similarly, average costs of child care are low at $55 per week or less. Local coordinators accomplish all of this not because services are cheap. Rather, they work diligently with other agencies to pool many resources together to make Perkins money go as far as possible.

Exemplary programs.

One college aggressively addressed its retention problems with a week-long orientation session for single parents who are receiving assistance from the Perkins grant. The effort has brought their retention of child care recipients to 85% from the sixties and seventies in previous years. The orientation is scheduled for three hours every day. The grant personnel explain how the grant can help students and also what is required of students in return. Items of the student/grant contract are gone over in detail. Reimbursement rates are discussed. Requirements for attendance and academic performance are outlined. Once the technical details of the grant are dealt with, the students undergo a variety of life management workshops. They take the Myers Briggs test, work through the Self Directed Search, and later in the week hear a discussion of the results and what they can mean. Also included during orientation are sessions on time management and goal setting, as well as individual counseling sessions. Students celebrate at the end of the week with a potluck luncheon.

The Single Parent program does not end with the orientation. During the year these single parents are required to attend at least one workshop a week on life management skills. Topics are chosen by the students themselves and include sessions on parenting, nutrition, communication, or study skills. In fact, the students organized their own Single Parent Club explicitly to attend to the business of life management skills. The

Club is complete with officers and a constitution and affords them a measure of campus visibility and official standing with the Student Government Association.

IV. Sex Equity Program (Title II, Part B, Section 222)

During the 1995-96 school year, eleven colleges had sex equity grants designed to train men and women in the nontraditional occupations. The total cost was $272,513, including the local salaries for counseling, coordination, and direct financial support of students. The money invested by the sex equity program has broken barriers, especially to women's training, by providing them with material support (such as child care, transportation, books, etc.); affective support (personal and group counseling, personal development seminars); and practical support (extensive personality and aptitude assessment, peer tutoring, job development and placement). Since the Perkins legislation enabled this assistance, nontraditional students have been much more likely to stay in school than they were prior to this assistance. Furthermore, the program has made the women employable at a reasonable wage for the first time in their lives.

Preliminary calculations show that retention rates of nontraditional students in the program averaged 75% from fall, 1995 to fall, 1996 (the figure includes those who complete a curriculum at some point during the year). Those who went to work in a nontraditional field within six weeks after graduation were 61% of completers. Moreover, the number of nontraditional graduate employees as a percentage of total numbers served increased last year to 22% from 18% the year before.

Preparatory Services for Girls and Women. North Carolina's community college women, for whom the 14-25 age limit has been waived, are on average 30 years old; however, the sex equity program still offers the preparatory and supportive as well as the educational programs noted above. Almost all the nontraditional grants offer a battery of personal, aptitude, and placement tests as part of the orientation to nontraditional trades. Frequently, the colleges interpret the personal assessments in a group setting, a strategy which fosters the bonding of a support group. The assessment instruments, as colleges report, reinforce positive images and give the women confidence in knowing they are going into an occupation for which they are suited.

Exemplary Program. Although the programs are broadly similar, each offers something unique. This was the second year that a special model program funded a broad, large-scale experimental program to make "sex equity" a household word in the entire community among college students, public school children, parents, households, business executives, and civic groups. The staff has launched a massive media campaign

to make this community aware of their seriousness in promoting gender equity. One of the major thrusts has been on career awareness among middle school children, who have been the beneficiaries of many presentations by the college's sex equity program. Week-long community workshops were added the second year to help school girls understand the importance of mathematics and science.

The mass and variety of this college's sex equity program have made it exemplary in many other ways also. At the request of the State Office the project was placed under the direction of the college president to allow the sex equity director access to the top administrative councils. Chief executive officers of local industry have been invited as members of the sex equity's advisory board to build membership in the work force for the sex equity graduates. A mentoring program is now in place for every student. Faculty awareness was enhanced by a number of workshops on equity in the classroom. The program is now ready to share ideas with sister colleges.

Another college has been cited before in this document for its imaginative programming to help sex equity students. Sex Equity applicants at this college have always undergone a variety of career and personal exploration activities to establish their fit and comfort in their nontraditional field. Students have also participated regularly in workshops for life management and engaged in routine counseling sessions with the project coordinator. The strategy has paid well, for this college's retention and job placement have scored consistently around eighty percent throughout its tenure with the grant. It has been a front runner longer than any other community college in the sex equity program in our state.

V. Criminal Offenders (Title II, Part B, Section 225).

Three community colleges participated in programs for criminal offenders during the 1995-1996 program year. This represents the second year in the two-year cycle of this competitive grant. A total of 3,464 corrections inmates participated in these occupational programs (including non-1995/96 funded). (See enrollment table in Appendix B.) The following colleges and corrections facilities participated:

Table 1

1995-1996 Criminal Offender Program Participants

College	Correctional Facility
McDowell Technical Community College	McDowell Correctional Center
Robeson Community College	Lumberton Correctional Center
Western Piedmont Community College	Foothills Correctional Institution

Achievements, services, or programs.

The correctional center curriculum programs in North Carolina are designed to prepare individuals for skilled and semi-skilled employment opportunities upon release from incarceration. These programs offer occupational advancement significantly above the no-wage or minimum wage prospects this population might otherwise expect. Both academic and skill development programs are offered. The developmental academic studies provide remediation in basic skills. The occupational skill curriculums are primarily oriented to the development of manipulative skill competencies for use in specialized trades and professions. These programs consist of logical sequences of courses designed to prepare individuals for identifiable employment levels in specific occupation fields.

One correctional institution, besides offering Basic Skills training, i.e., literacy, ABE, GED, remediation, and developmental classes, set up vocational and technical programs in Upholstery, Cutting and Sewing, Residential Carpentry/Cabinetmaking, and Business Computer Programming. These training programs provide specialized skills training for inmates who, upon release from prison, have employable, marketable skills in the current job market. Prison staff and the college determine the most appropriate type of training program to meet the vocational and technical needs of the population. Twenty participants are enrolled per program. Certificates in the cutting and sewing and upholstery programs are earned based on 18 credit hours, 14 weeks in attendance, and 30 hours per week to meet the employment needs of prison enterprise businesses. Carpentry and business computer technology are longer programs consisting of six months to one year of training to meet private sector needs. Another facility is offering two vocational programs in Carpentry and Cabinetmaking and Electrical Installation and Maintenance. The focus of these programs is to prepare completers for entry-level employment once released from prison. A third correctional center also enrolls inmates in Upholstery, Cabinetmaking, and Microcomputer Technology. Drafting and Design is also offered.

Twenty-four students were enrolled in Upholstery, 11 in Cabinetmaking, 31 in Microcomputers, and 7 in Drafting and Design.

VI. Special Populations (Title I, Part B, Section 118).

The 58 community and technical colleges in North Carolina are committed to serving the vocational education needs of the adult special population of the state. It is the policy of the North Carolina Community College System not to discriminate on the basis of race, sex, age, national origin, religion or disability with regard to its students, employees, or applicants for admission or employment. The primary emphasis of every collage is on job training. Every opportunity is taken by the 58 community colleges to increase special population participation and success in these programs.

The commitment to assuring the full and successful participation of special populations is strongly placed at the state level. A permanent, full-time staff member serves as the Coordinator of Methods of Administration. This staff member serves on numerous committees which review system-wide policies and programs which target special population members. A minimum of 20% of campuses are visited each year and their staff and procedures are rigorously screened to assure equitable special population treatment.

Disabled. During the 1995-1996 program year, 4,626 disabled students were enrolled in the vocational and technical curriculum programs eligible for Perkins funds. (See enrollment table in Appendix B.) To meet the needs of these students, particular attention is paid to coordinating other, compatible vocational services. Where possible, vocational rehabilitation programs are provided on community college campuses or are located nearby. This emphasis on coordination is accomplished in two steps -- identification and assessment.

The identification process includes creating voluntary, non-prejudicial mechanisms for self-identification such as academic applications, course registration forms, counseling self-referrals, and other reporting forms. Other identification programs include testing, counseling, and faculty feedback. In addition, active participation and referrals by NC Vocational Rehabilitation Services, Division of Health Services, JTPA, and area secondary schools are encouraged. This program is especially productive and effective as evidenced by numerous cooperative agreements between local colleges and the NC Vocational Rehabilitation Services, local Departments of Social Services, community action agencies, and mental health clinics.

Assessment is accomplished by several methods which are used singly or in combination. Also, as in the identification process, full use is made of personal interviews, observations by staff, and information passed from referring agencies. A recent addition has been made to these efforts through the use of computer software to diagnose students' learning problems. Additionally, where required to ensure appropriate participation, testing is conducted by licensed clinical psychologists.

Once a disabled student has been identified and properly assessed, a wide array of supplemental services are provided by each colleges. These include such things as supplemental standardized counseling, placement tests available in Braille, referral services available in the local community, specialized instructional equipment, such as large print typewriters, hearing impaired telephone adapters, and individual tape recorders. Additional classroom support is provided through tutorial services, interpreters, note takers, signers, readers, and typists. Special texts and other curriculum- related material are also available when needed. Other services include special programs such as sheltered workshops or programs for the blind or hearing impaired. Physical access is assured through special parking and elevator access in multi-floor buildings. These, and the many other supplemental services, are provided on an "as needed" basis. These services allow most disabled students to attend regular classes.

Limited English Speaking (LEP). A total of 1,769 students with limited English proficiency were served in curriculum programs during the 1995-1996 program year. (See enrollment table in Appendix C.)

North Carolina continues to attract many people from other countries. Each year the farming harvests attract many native Spanish-speaking immigrant farm workers. These workers tend to settle in any regions of the state where agriculture-related jobs are readily available. Often these workers relocate to the larger urban areas to seek employment during off-peak farming seasons. This movement has placed a steadily increasing burden upon the community college system as it attempts to meet the language needs of these citizens. Other resources also attract non-English speaking people to North Carolina. Recognizing the abundance and quality of higher education in North Carolina, many foreign students are attracted. Of these, many come with dependents and elect to stay for additional graduate work after initial degree completion. Another source of non-English speaking people are the dependents of military personnel stationed at the many North Carolina defense locations. All of these groups are served through the LEP programs at the community colleges.

Identification, outreach, and recruitment activities designed for those eligible for assistance under LEP programs include many different approaches. Many students are enrolled in English as a Second Language program to fulfill citizenship legalization requirements. However, a large number also attend vocational and technical curriculum programs as indicated by the large number served. North Carolina community colleges apply a variety of recruitment and assistance techniques to assure full and successful participation by these students. Such techniques include easily available English as a Second Language classes, subject matter tutoring in native languages, translations of technical texts into native languages, and Guided Studies Centers which offer individual or group tutoring and specialized classes for the distinct needs of LEP groups.

Disadvantaged. Community colleges in North Carolina have, as do other states, a large number of economically disadvantaged students. Information provided at registration provides a key identification element for the colleges to determine the type and extent of circumstances which contribute to classifying a student as disadvantaged. The 58 community colleges reported an enrollment of 35,667 economically disadvantaged students. (See Appendix C.) Other identification information is received through referral information from JTPA programs, community action agencies, and similar groups. Other students are identified by information supplied by financial aid offices within each college. Identification criteria include referral agency standards, Pell grant application guidelines, participation in JTPA programs, or a comparison of family income with the poverty guidelines established by the U.S. Office of Management and Budget.

Likewise, many educationally disadvantaged students are enrolled in North Carolina's community colleges. In 1995-1996, 71,495 students were enrolled as academically disadvantaged. (See Appendix C.) One method used to identify students who may be educationally disadvantaged and, thus, at risk of academic failure is the administration of standardized instruments such as the Assessment and Placement Services for Community College (APS), ASSET and COMPASS (published by the American College Testing Program), Computerized Placement Tests (CPT), and the Multiple Assessment Programs and Services tests which include the Descriptive Tests of Mathematics Skills and the Descriptive Tests of Language Skills. Also, full use is made of personal interviews, observations by staff, and information passed from referring agencies. As previously described, computerized diagnostic programs are available at several colleges to diagnose students' learning problems and enable staff and faculty to more effectively meet the student's needs.

The blending of identification and assessment plays a vital role in vocational education programs in the state's community colleges. This is especially true for the economically

and educationally disadvantaged student. Colleges assess the student's interests, abilities, and special needs through preadmission conferences, career and academic guidance, personal counseling, financial assistance counseling, and academic testing. On the basis of student profile information gathered from these sources, students are often referred to service provider agencies which conduct more detailed assessment. An example of such a referral is when a student is sent to the Employment Security Commission for GATB testing or ASVAB assessment.

Once identified and assessed, disadvantaged students (both economically and educationally) are provided a wide array of supplemental counseling, tutoring, and special remedial instruction programs and services to increase their chances for success in vocational and technical curricula programs. Each college staffs a learning resource center which is available to such students on an as-needed basis. Many colleges also aggressively promote the use of developmental studies programs. These programs, and others like them, emphasize the NCCCS commitment to an open door environment and philosophy which enables students to increase whatever skills she/he may already possess, and to successfully progress to higher, more productive skills for employment.

Often the single largest impediment to successful academic performance for both the economically and educationally disadvantaged student has roots in fiscal limitations. To overcome this, community college financial aid offices strive to match needy students with the available sources such as scholarships, loans, and grants. The state of North Carolina annually makes over 1,000 grants from a scholarship fund. Additionally, many local business and civic organizations are encouraged to provide support by establishing scholarship funds. Whenever possible these local and state resources are augmented by Federal sources such Pell grants and JTPA programs.

VII. State Leadership and Professional Development (Title II, Part A, Section 201).

Curriculum Improvement Projects. During the 1995-1996 program year, a major focus of funds from Perkins for state leadership and professional development was the undertaking of 7 curriculum improvement projects. The goal of a curriculum improvement project (CIP) is to create a process and environment through inservice training and professional peer guidance which leads to an updated instructional program or curriculum area. Programs or areas targeted for improvement are those that are strongly affected by episodic socio-technical or economic forces in the state. Programs which meet this criteria are identified via a system-wide request for proposal process in which all colleges participate. These requests highlight what the circumstances are which require curriculum update, how the college will provide system-wide leadership to benefit

all colleges offering the curriculum, and how the updated curriculum will be disseminated and implemented across the system. Strategies used by participating colleges include updating instructors' technical and professional knowledge, skills, and abilities, and updating the content of the associated curriculum and continuing education courses.

Seven colleges received funds to implement curriculum improvement projects during the 1995-1996 program year. Two projects completed their second year and concluded; 5 were beginning their first year. The 2 concluding were:

Table 2

Curriculum Improvement Projects (Second Year)
1995-1996

College	Curriculum Program
Craven Community College	Computer Technologies
Wake Technical Community College	Civil Engineering/Surveying Technologies

Computer Technologies
Craven Community College

Business Computer Programming and Microcomputer Systems Technology made up the programs of the project. All 58 community colleges participated through their offerings of these two programs. Besides curriculum modernization, brought about by the community college system's reengineering efforts, this project provided professional development activities for the instructors from all colleges by facilitating instructor communication, promoting the sharing of knowledge and resources, and involving employers and industry experts statewide in the development and implementation of these programs. Organizations, such as the Computer Instructors Association, the Business Instructors Association, the Economists Association, and the North Carolina Community College Association of Chairs and Department Heads, worked with the instructors involved with this project to identify what training needs are necessary for the students completing these courses to find and secure good employment. Three project goals were achieved: faculty inservice education, through technical training opportunities, critical thinking and team building, knowledge of employer requirements and expectations, and a cooperative working relationship through a vital networking system; development of instructional materials and methods, through updated curricula, a databank of resources, and shared computer communications link with other colleges; interaction with business and industry, through the identification of essential skills, and

an ongoing computer technologies advisory committee complete with instructors and business leaders.

Civil Engineering/Surveying Technologies
Wake Technical Community College

This CIP had 25 full-time and part-time instructors from nine community colleges participate. Six workshops filled the second year with professional development activities: Geographic Information System Workshop, Advanced Global Positioning System Workshop, HP-48GX Advanced Calculator Applications Workshop, AutoCAD and SoftDesk Applications Workshop, Electronic Total Station Workshop, and the 1996 CIP Spring Conference. For curriculum and instructional materials development, a manual was prepared and distributed, containing task analysis information, updated curriculum standards, suggested models of curriculums based on the semester system, new to the system, and detailed course descriptions and outlines. This project purchased an Electronic Total Station and a Global Positioning System receiver to assist with the workshops.

Five additional curriculum improvement projects were funded for 1995-1996 and reported on their first year's achievements. These were:

Table 3
Curriculum Improvement Projects (First Year)
1995-1996

College	Curriculum Program
Davidson County Community College	Health Information Technology
Pitt Community College	Machining
Rockingham Community College	Air Conditioning, Heating, Refrigeration
Lenoir Community College	Commercial Graphics/Commercial Art
Sandhills Community College	Human Services/Social Services Technologies

Health Information Technology
Davidson County Community College

The Health Information Technology CIP had eight participating colleges during its first year. Professional development activities provided educational resources needed to train instructors in the health care industry and provided educational opportunities for instructors to receive instruction and hands-on training in advanced technologies such as telecourses,

distance learning, and computer-assisted instruction. A HIT CIP Overview and Orientation focused upon reengineering efforts, the CIP concept in general, and the HIT CIP in particular. Three issues of the newsletter based upon this project were distributed statewide to the participants, college administrators, the advisory committee, and representatives of the health care industry. Curriculum and instructional materials development were designed to develop course descriptions, incorporate advanced technologies into health information technology courses, develop institute articulation agreements between two-year programs and four-year programs offering Health Information Administration, and develop model curricula for HIT programs relevant to the demands of the health care industry which adequately addresses the entry-level competencies put forth by the American Health Information Management Association. Eight computers, two printers, one scanner, and a television monitor were purchased to be used in presentations, workshops, software previews, and curriculum development.

Machining
Pitt Community College

During the first year of the CIP, the goals of establishing a management team, a steering committee, conducting quarterly meetings of the steering committee, verifying the job roles of the machinist and the machining tech in North Carolina industries, ascertaining the specific skills for the machinist and machining tech, staff development, the beginning of the development of multimedia course materials and how to use the materials all occurred. The revision of the curriculum was moved from the second year to the first because of the change to the semester system. The Tech Prep goal was shifted to the second year. The curriculum manual, which consists of course descriptions, outlines, and objectives, was completed. The staff development workshops received high evaluative marks and were well attended by a majority of the eligible colleges. The visits to the North Carolina industries, done for the purpose of verifying job roles, yielded two important facts: the need for teaching critical thinking and team building as part of the curriculum. These were added to the second year goals. Thirty-eight colleges are involved with this CIP. Three regional meetings were held for machining instructors. Twenty-six instructors attended the three meetings. Each participant was given a copy of the reengineered course descriptions as well as an explanation how to build their curriculum. Staff development activities included tool engineering and computer technology software instruction.

Air Conditioning, Heating, and Refrigeration
Rockingham Community College

This CIP serves 33 community colleges. The programs range from associate degree and

diploma programs with one or more full-time faculty to certificate programs with part-time faculty only. Two professional development activities occurred this year: a three-hour workshop on marketing Air Conditioning, Heating, and Refrigeration programs, particularly with the approaching semester system conversion within the community college system, and a 24-hour certification training course on Ground Source Heat Pumps. Fifteen participants passed the certification exam. The steering committee prepared sample course descriptions in a semester hour format to be used as guides. Twenty-eight courses were written and a new curriculum standard prepared. Nine new computers were purchased for instructional purposes during this year, a demonstration laboratory was set up, and it is anticipated that project representatives will meet in this lab to have a hands-on workshop with some of the most widely used instructional software in the target curriculum areas.

Commercial Graphics/Commercial Art and Advertising Design
Lenoir Community College

The Commercial Graphics CIP seeks to lay the foundation for a teaching/learning environment that will produce world class, highly skilled, technologically advanced, competitive workers for tomorrow's careers in commercial art and graphic art industries. Two professional development workshops occurred for the 16 participating community colleges: access to the Internet and the Information Highway classroom models through Adobe Pagemill, a software package used to develop Web pages; and intermediate and advanced image processing techniques using Adobe Photoshop. Four issues are obvious after the first year of this project: (1) due to advancements in computer technology, there is a need to provide more technological training for educators, students, and business and industry professionals, especially in the area of multimedia; (2) college curricula need to reflect industry developments, resulting from a survey of present and future training needs and competencies required of entry-level employees; (3) commercial technical assistance is expensive and often inconvenient, indicating a need for other methods of technical assistance, i.e., the WWW homepage; and (4) attracting and retaining students in the curricula continues to be a prominent issue and may best be addressed by articulating with secondary schools through Tech Prep initiatives and with four-year university programs and with interactive multimedia connections.

Human Services Technology/Social Service Associate
Sandhills Community College

The mission of the HST/SSA CIP is to standardize the program into a single strong core curriculum with common course titles, numbers, and content description with emphasis on the introductory courses, field placements, and practicums. This CIP established its office

and conducted preliminary research and information gathering for the 21 community colleges offering these programs. Committees were begun for Core Curriculum and Concentration as well as a statewide Advisory Committee. Statewide meetings were held to develop standards of the HST curriculum. Site visits were begun to all participating members, and issues of "Process and Progress" were published for information sharing.

VIII. Community-Based Organizations (Title III, Part A, Sections 301 and 302).

No postsecondary programs are presented in North Carolina.

IX. Consumer and Homemaking Education (Title III, Part B, Sections 311, 312, and 313).

No postsecondary programs are presented in North Carolina.

X. Tech Prep (Title III, Part E, Sections 341-347)

The purpose of Tech Prep according to its strategic plan is to *prepare students with a course of study focused on technological and academic skills that result in the completion of at least an associate degree, a two-year certificate, or a two-year registered apprenticeship program and successful participation in a world class workforce*. In 1993 it was personalized for North Carolina... *to engage students who are pursuing at least a two-year associate degree, a two-year certificate, or a two-year registered apprenticeship program in a nationally recognized, integrated technical and academic program of study that prepares them to compete successfully as world class workers in a global economy.*

Community colleges in North Carolina have participated in Tech Prep consortia officially since 1990. The Richmond County program was fortunate to establish many of the primary benchmark activities of Tech Prep programs in the nation between 1985 and 1990. Through its Leadership center, it became a national exemplary site and received a high demand for information and site visits. While national visibility was beneficial and motivated other counties in the state and nation to participate in the benefits of the program, the job of maintaining a national stature proved difficult.

Tech Prep courses of study are being offered in 117 of the 119 local education agencies and in all 58 community colleges. The most prevalent, articulated local tech prep career pathways are:

- Business and Marketing
- Construction Technology

- Environmental Sciences
- Health Services
- Human Services
- Industrial Communications Technology
- Manufacturing/Transportation Engineering Technology

Typical Tech Prep courses of study for high school students include:

- Four English courses to include technical writing
- Three math courses - Algebra I and Geometry and Algebra II as the preferred goal
- Three science courses related to the student's career pathway
- Four technical courses related to a career pathway
- Other graduation requirements

Courses recommended for community college students will change as the re-engineering effort takes effect, but all students will be required to complete core courses and related work toward the Associate of Applied Science degree.

The Final Report in 1994 describes strong efforts by the colleges to involve business and industry; to implement career development plans through extra efforts in career awareness and planning; and efforts to make college entrance placement tests available to high school faculty and students in order to provide early feedback on student readiness to enter community college programs. Progress was also evident in staff development efforts. These efforts resulted in new articulation, collaboration between teachers and faculty, curriculum sequencing and improvement, and increased interest in academic and technical curriculum integration. Extraordinary efforts to assist special population students were encouraged.

Evaluations in 1996 demonstrated that the 33 consortia had made significant progress in the areas of curriculum integration, reduction of remediation, documentation of student outcomes, and completion rate of the career major. Qualitative information on behavior changes in faculty, staff, and students was collected as well as information on programmatic changes such as curriculum development, increase in articulation, and transition services to ease student transfer to postsecondary education.

Data was collected from secondary and postsecondary institutions in the following categories:

Number of Tech Prep students
Number of Tech Prep students taking math and science not required for graduation (secondary)

Number of self-proclaimed Tech Prep students completing career pathway technical sequence (secondary)
Number of Tech Prep students needing remediation (postsecondary)
GPA for students in core academic courses
GPA or End-of-Course test scores for students in technical courses
NAEP exam scores if applicable (secondary)
Comparative drop-out rates of Tech Prep students (secondary)
Graduation rates of Tech Prep students
Comparative rates of Tech Prep students continuing education
Number of Tech Prep students who participated in work-based learning
Placement rates in related employment or apprenticeship after graduation

There was excellent evidence of data from the secondary schools. Two-thirds of the community colleges had difficulty reporting data on most categories either because they had not yet admitted Tech Prep students, had not developed a process with the high schools to track Tech Prep students. High school graduates in June of 1996 were the first cohort to have transcripts that described each student as either *College Tech Prep* or *College Prep*. College and high school counselors will continue to verify transcript tags as well as each student's achievement of a Tech Prep sequence of study until a computerized capability is established. Statewide staff development and inservicing will occur during the winter of 1997.

Other staff development initiatives to assist community college faculty include *Teach for the Workplace*, consideration of *Quality* issues in program implementation, and best college programs will mentor partner colleges that struggle with issues such as data collection. A listserve has been established on the North Carolina Community College System Home Page on the Internet called *"wkforcprep"* that provides an ongoing online discussion for Tech Prep and JobReady questions and issues.

Consortia are struggling philosophically to integrate their efforts in Tech Prep with those under JobReady (school-to-work) and associated JobLink (one-stop career center) grants. For active partnerships/consortia it is evident that workforce preparation is the focus of both programs, and that the mammoth JobReady initiative to prepare all ages of students for the work place is largely due to the success of Tech Prep programs nationally.

XI. Integrating Applied Academics into Vocational Education (Title I, Part B, Section 116; Title II, Part A, Section 201; Title II, Part C, Section 235,240).

The North Carolina Department of Community Colleges recognizes the need to integrate academic and vocational content in a coherent and meaningful manner for its

students. As postsecondary institutions, its member colleges provided technical and vocational curriculums to 165,326 students. Each curriculum program is reviewed by the NCCCS and approved by the State Board of Community Colleges. The standards used to determine approval are consistent with regional accrediting agencies such as the Southern Association of Colleges and Schools. All approved and Perkins-eligible programs include both technical/job-specific course work as well as academic preparation courses. Therefore, by choosing a specific course of study, the student receives an integrated program of academic and vocational training.

Since the nature of postsecondary education is learner-chosen, i.e., a curriculum of interest is chosen by the student, programs are available which include both academic and vocational components. To ensure that students are successful in these programs the North Carolina Community College System provides extensive academic support services to vocational and technical students. These include counseling, career assessment, tutoring, and a wide array of remedial classes. Many of these programs have been previously described.

Another program previously described in this report is the Curriculum Improvement Project process. These projects identify all competencies, both academic and vocational, needed by students to become productive employees. As a result, the programs developed include a system of coherently developed courses to provide such. This is the nature of program development at the community college level. As such, these programs embody the concept of academic and vocational integration.

XII. Career Guidance and Counseling (Title II, Title III, Part C, Section 321-323).

No postsecondary funds were used for Title III, 101 Part C, Section 321-323 eligible programs during the 1995-1996 program year. However, as previously described many community colleges apply Perkins funds to provide a more comprehensive guidance and counseling program at their respective campuses. Several colleges hire full-time counselors for special population students or use part-time (prorated full-time) counselors for such activities.

Additionally, many colleges have increased their guidance capabilities through the purchase of computer software designed to assess a student's career interests and abilities. Since the mission of a comprehensive community college is to provide complete educational services to all its constituents, programs such as these are indispensable.

APPENDIX A

Performance Measures and Standards

- Postsecondary -

Vocational Education Performance Report
North Carolina Community College System
1995-1996 Program Year

1 - To record the percentage of required credit hours completed for the curriculum, i.e., the number of students who completed 25%, 50%, 75%, or 100% of the courses needed for curriculum completion/graduation.

The standard is set at 15% below the mean percentage of the System average. The standard is set in the 76-100% column in order to measure those students nearing the completion of their curriculum programs. A student cohort, or those students identified as enrolled in subsequent years, will be followed over a three-year span.

2 - Report the rates at which vocational education students are required to take and pass remedial, or developmental, basic academic courses, such as English and mathematics, and the rates at which vocational education students take and pass these as well as general education and related courses.

The standard is set at 15% below the mean percentage of the System average.

3 - To report retention rates by credit hour. Students are considered to be retained if they enrolled in the Fall quarter of the first recorded year, did not complete or graduate in that quarter, and completed at least one additional course during the subsequent two school years. A student cohort of identified students will be followed for no less than 3 years.

4 -To report the number of special population students needed to meet the standard by subtracting the difference of special population students *enrolled* in technical and vocational programs from the total special population students enrolled in all programs. To discover if the special population student enrollment in technical/vocational programs differs more than a third from the overall percentage of special populations in all curriculum programs. This standard is in keeping with the secondary criteria for special populations.
The standard is to find the difference between enrollment by subtracting the special populations in technical/vocational programs from the total special populations in all curriculum programs. Then this difference will be subtracted from the total special populations in all programs divided by three. The formula is (A-B) - (A/3). Those community colleges showing negative numbers will be below the standard by the actual number of students needed to meet the standard for that particular year.
For the *completion* measure, compare the difference in the percentage of special population technical/vocational completers with the percentage of all completers in technical/vocational programs. The standard is set at 15% below the mean percentage systemwide.

APPENDIX B

Curriculum Postsecondary Enrollment

for Carl Perkins Performance Report

1995-1996

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
CURRICULUM POSTSECONDARY ENROLLMENT
FOR CARL PERKINS PERFORMANCE REPORT--7/1/95 TO 6/30/96
(TECHNICAL AND VOCATIONAL ONLY)

REPORT # CC815CPP

CIP CODE	CIP NAME	TOT ENR	MALE	FEMALE	REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH SPH	SEX EQ (NON-TRAD)	COMP-LETER
01.0101	AGRICULTURAL BUSINESS	22	18	4	10	10		2		2	4	7
01.0104	AGRICULTURAL TECH.	3	2	1	2	1						
01.0201	FARM MACHINERY MECH	3	3		2	1				1		1
01.0204	AGRI MACHINERY SERV TEC	28	28		26	1		1				
01.0301	AGRICULTURAL SCIENCE	7	7		2	5						1
01.0302	SWINE MGMT TECHNOLOGY	141	89	52	52	83	1	6		10		17
01.0303	AQUACULTURE TECHNOLOGY	16	13	3	13	2				2	3	2
01.0505	EQUINE TECHNOLOGY	39	8	31	18	18		6		1	8	9
01.0599	TAXIDERMY	75	62	13	65	7		2	1	4	13	18
01.0601	HORTICULTURE	768	529	239	349	181	4	34	227	46		108
01.0604	GREENHOUSE & GRNDS MGMT	158	81	77	43	32		93	2	5		25
01.0605	LANDSCAPE GARDENING	86	66	20	47	35		4		6	20	18
01.0607	RECREATIONAL GRND. MGT.	141	128	13	73	65	1	6		6	13	39
03.0401	FOREST MANAGEMENT	239	213	26	124	109	1	10		11	26	44
03.0404	WOOD PRODUCTS	6	6		4	2						3
03.0499	LUMBER SPECIALIST	20	20		11	6		3		1		17
03.0601	FISH AND WILDLIFE MGT.	104	93	11	34	67		8		6	11	29
07.0699	DESKTOP PUBLISHING (T S)	10		10	5	5				2		2
08.0102	FASHION MERCHANDIS & MKT	96	7	89	50	40		5		9	7	14
08.0503	RETAIL FLORICULTURE	65	4	61	36	27		6		7	4	18
08.0705	MARKETING & RETAILING	571	200	371	294	243	5	38		58		67
08.1001	INSURANCE	6	4	2	5	1				1		1
08.1104	TRAVEL AND TOURISM TECH	115	19	96	78	30	2	6		11	19	15
08.9999	CUSTOMER SERVICE TECH	70	9	61	48	17	2	6		11	9	1
10.0101	COMMUNICATIONS TECH.	32	17	15	16	15				7		
10.0103	PHOTOFINISHING SPEC.	23	10	13	3	19		3		6		7
10.0104	RADIO/TV BROADCAST TECH	207	160	47	97	104		8		7	47	23
11.9999	SCIENTIFIC VIS COMP GRAP	48	30	18	19	20	2	9		4		6
12.0301	FUNERAL SERVICE ED.	310	179	131	215	93		3		7		53
12.0403	COSMETOLOGY	4,018	164	3,854	1,458	2,296	29	127	41	969	164	474
13.1501	TEACHER AIDE	539	33	506	180	330	3	33	1	156	33	63
13.9999	AD FOR VOC INSTRUCTORS	15	9	6	11	2				2		
14.3001	MANUFACTURING ENG.	199	177	22	117	77	1	6		5	22	27
15.0101	ARCH TECHNOLOGY	845	622	223	443	355	11	71	1	38		86
15.0201	CIVIL ENGR TECH	501	433	68	295	193	8	16		13	68	42
15.0303	ELECTRONICS ENGINEERING	2,934	2,629	305	1,503	1,332	44	147	2	162	305	287
15.0304	LASER/ELECTRO-OPTICS TEC	47	41	6	14	32		3		3	6	13
15.0399	IND ELECT/ELECTRO TECH	612	574	38	318	278	3	32		28	38	70
15.0401	BIOMEDICAL EQUIPMENT	104	96	8	42	57	2	11		5	8	30
15.0402	COMPUTER ENGINEERING TEC	955	758	197	526	380	20	42	1	53	197	79
15.0403	IND MAINTENANCE TECH.	708	654	54	371	318	4	28		38	54	53
15.0404	INSTRUMENTATION	65	54	11	23	42		1			11	15
15.0405	AUTOMATION/ROBOTICS	73	68	5	34	34		15		1	5	12
15.0501	A/C, HEAT, & REFRI TEC	318	312	6	217	95	4	11		9	6	45
15.0506	ENVIRONMENTAL SCIENCE	175	106	69	78	89	1	16		14		30

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
CURRICULUM POSTSECONDARY ENROLLMENT
FOR CARL PERKINS PERFORMANCE REPORT--7/1/95 TO 6/30/96
(TECHNICAL AND VOCATIONAL ONLY)

REPORT # CC815CPP

CIP CODE	CIP NAME	TOT ENR	MALE	FEMALE	REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH SPH	SEX EQ (NON-TRAD)	COMP-LETER
15.0603	INDUSTRIAL ENGINEERING	237	149	88	122	101		9		24		7
15.0607	PLASTICS TECHNOLOGY	20	17	3	13	5		2		2	3	5
15.0699	CHEMICAL	137	95	42	82	48		4		9		19
15.0701	IND SFTY SCRTY & HLTH MG	62	39	23	49	10		2		3		8
15.0702	QUAL ASSUR TECHNI (TS)	63	43	20	54	8		2		1		1
15.0805	MECHANICAL ENGINEERING	1,718	1,425	293	869	759	25	76	45	90	293	177
15.1102	SURVEYING TECHNOLOGY	199	187	12	143	52		5		5	12	24
15.9999	GENERAL OCCUPATIONAL	426	152	274	193	219	2	16		52		34
20.0202	CHILD CARE WORKER	207	11	196	84	116	2	10		28	11	34
20.0203	EARLY CHILDHOOD ASSOC.	3,941	57	3,884	1,505	2,258	27	198	1	771	57	374
20.0401	FOODSERVICE MANAGEMENT	771	421	350	372	343	7	53	55	85		70
20.0409	FOODSERVICE SPECIALIST	417	411	6	60	85		3	351	11	6	125
22.0103	PARALEGAL TECHNOLOGY	2,710	278	2,432	1,279	1,279	13	85	1	510	278	306
25.0301	LIBRARY ASSISTANT	6	4	2	4					2		
31.0101	PARK & OUTDOOR REC RES	11	8	3	8	3						1
31.0301	RECREATION ASSOCIATE	135	76	59	40	91	2	11		12		29
40.0702	MARINE	150	107	43	81	69		1				23
41.0101	BIOTECHNOLOGY	46	14	32	20	25	1	5		10		9
43.0102	CORRECTIONAL SERVICES	224	60	164	110	106		9		40		23
43.0107	BASIC LAW ENFORC TRAIN	7,927	4,908	3,019	3,896	3,793	27	255	32	872		1,326
43.0201	FIRE SCIENCE	650	613	37	471	150	16	12	1	9	37	43
43.0203	FIRE PROTECTION DIPLOMA	26	25	1	20	5		2			1	1
44.0401	PUBLIC ADMINISTRATION	71	28	43	29	39		4		10		12
44.0701	SOCIAL SERVICE ASSOC.	958	61	897	304	603	5	51	1	215	61	134
46.0101	MASONRY	476	473	3	38	85		15	410	13	3	129
46.0201	RESIDENTIAL CARPENTRY	565	528	37	306	127	2	19	142	20	37	73
46.0302	ELECTRICAL INSTALLATION	1,524	1,469	55	777	498	10	46	303	69	55	295
46.0401	FACILITY SERV TECHNICIAN	76	76		2	30		1	74			21
46.0499	LIGHT CONSTRUCTION	399	379	20	90	166	4	6	150	9	20	40
46.0501	PLUMBING & PIPEFITTING	312	308	4	49	84	2	6	226	2	4	104
46.9999	INDUSTRIAL CONSTR TECH	26	25	1	13	11		3			1	6
47.0104	DIGITAL ELECTRON REPAIR	97	89	8	28	32		4	40	6	8	16
47.0105	INDUSTRIAL ELECTRONICS	62	56	6	30	31		3		1	6	10
47.0199	TELEPHONY (TECH SPEC)	550	516	34	394	145		27	1	12	34	44
47.0201	A/C, HEATING, & REFRIG	1,450	1,423	27	839	354	5	52	220	37	27	319
47.0302	HEAVY EQUIPMENT MECH	62	60	2	32	27	1	2		4	2	4
47.0303	INDUSTRIAL MAINTENANCE	853	806	47	567	258	5	20	1	40	47	118
47.0402	GUNSMITHING	100	99	1	77	18		12			1	4
47.0404	PIANO TUNING & REPAIR	1	1			1						
47.0408	JEWELRY PRODUCTION CRAFT	38	20	18	24	11	1	4		8		1
47.0603	AUTO BODY REPAIR	678	661	17	466	193	8	37		24	17	73
47.0604	AUTOMOTIVE TECHNOLOGY	1,803	1,700	103	863	781	19	113	175	95	103	251
47.0605	DIESEL VEHICLE MAINT.	190	183	7	141	39	2	4		11	7	38
47.0606	MOTORCYCLE MECHANICS	183	179	4	64	47		1	103	2	4	58
47.0607	AVIATION MAINTENANCE	176	167	9	127	37	4	2		10	9	15

CURRICULUM POSTSECONDARY ENROLLMENT
FOR CARL PERKINS PERFORMANCE REPORT--7/1/95 TO 6/30/96
(TECHNICAL AND VOCATIONAL ONLY)

REPORT # CC815CPP

CIP CODE	CIP NAME	TOT ENR	MALE	FEMALE	REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH SPH	SEX EQ (NON-TRAD)	COMP-LETER
47.0699	MED/HEAVY VEH TECH	9	9		9							
48.0102	DRAFTING-BUILDING	67	42	25	35	28	1	2		8		7
48.0105	DRAFTING-MECHANICAL	120	107	13	81	32	2	10	11	2	13	21
48.0199	FURNITURE DFT & PROD DEV	40	24	16	25	12	3	1		3		9
48.0201	GRAPHIC ARTS--PRNT MGMT	379	196	183	204	150	4	25		34		26
48.0303	UPHOLSTERING	127	89	38	85	23		2	22	6		20
48.0503	MACHINIST TECHNOLOGY	1,786	1,618	168	1,164	544	24	59		101	168	209
48.0507	TOOL & DIE	119	84	35	75	41	1	4		4		60
48.0508	WELDING	1,603	1,522	81	835	494	6	62	331	71	81	204
48.0701	FINE & CREATIVE WOODWKG	33	31	2	23	8		4			2	11
48.0702	FURNITURE MACH OPERATION	155	154	1	108	41		10	1	3	1	58
48.0703	CABINETMAKING	66	60	6	20	39		3	27		6	4
48.0799	WOOD PRODUCTION CRAFTS	13	10	3	9	3		1		1	3	3
48.9999	POTTERY PRODUCTION	111	30	81	89	13		5		9		4
49.0102	AVIATION MGT & C PILOT	118	103	15	98	14	2	3		5	15	7
49.0202	HEAVY EQUIP. OPERATOR	51	49	2	40	11		1			2	20
49.0205	TRUCK DRIVER TRAINING	952	793	159	924	9		2		17	159	353
49.0306	MARINE MECHANICS	45	43	2	20	5			21		2	15
49.9999	TRAFFIC AND TRANS.	19	10	9	15	2				3		1
50.0402	COM. ART & ADV. DES.	1,323	665	658	826	415	15	70	19	99		131
50.0406	PHOTOGRAPHY	209	97	112	86	107	2	23		28		27
50.0408	INTERIOR DESIGN	386	18	368	231	127	2	11		57	18	54
50.0602	FILM/VIDEO PROD TECH	20	13	7	19	1						
51.0205	INTERPRETER TRAINING	190	18	172	104	66		15		26	18	10
51.0601	DENTAL ASSISTING	481	4	477	222	244	10	10		65	4	188
51.0602	DENTAL HYGIENE	355	3	352	216	123	4	5		30	3	87
51.0603	DENTAL LABORATORY	43	25	18	18	24	1	1		4		10
51.0703	HOSPITAL WARD SECRETARY	70	1	69	25	31		5		23	1	11
51.0705	HLTHCARE MGMT TECHN	62	4	58	30	29		2		16	4	
51.0707	MED. RECORDS TECHNOLOGY	239	15	224	90	131		25	1	48	15	57
51.0799	HEALTH INFO CODER	54	2	52	14	35		3		15	2	4
51.0801	MEDICAL ASSISTING	1,566	24	1,542	574	922	11	46		353	24	358
51.0803	OCCUP. THERAPY ASST.	261	40	221	91	160	6	12		45	40	64
51.0805	PHARMACY TECHNOLOGY	199	40	159	65	122	11	13		26	40	47
51.0806	PHYSICAL THERAPIST ASST.	449	109	340	277	149	1	12		43	109	112
51.0808	VETERINARY MEDICAL	169	12	157	73	88	2	13		14	12	38
51.0904	EMERGENCY MEDICAL	467	258	209	242	205	3	24		43		83
51.0905	NUCLEAR MEDICINE TECH	52	20	32	30	19	1	1		4		12
51.0907	RADIOLOGIC TECH / RADPHY	786	145	641	410	343	8	24	1	79	145	222
51.0908	RESPIRATORY CARE TECH	436	120	316	199	215	6	14		65		183
51.0909	SURGICAL TECH.	272	18	254	102	154	5	4		45	18	103
51.0910	MEDICAL SONOGRAPHY	58	1	57	28	27	1	2		13	1	24
51.0999	IMAGING TECH (TEC SPEC)	92	29	63	62	25		2		11		37
51.1002	CYTOTECHNOLOGY	9	2	7	7	1		1		1	2	
51.1004	MEDICAL LABORATORY TECH	373	53	320	152	204	7	20		60	53	89

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
CURRICULUM POSTSECONDARY ENROLLMENT
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REPORT # CC815CPP

CIP CODE	CIP NAME	TOT ENR	MALE	FEMALE	REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH SPH	SEX EQ (NON-TRAD)	COMP-LETER
1.1099	PHLEBOTOMY	308	26	282	128	155		20		68	26	170
1.1501	DRUG & ALCOHOL TECH	152	32	120	81	55	1	9		27	32	19
1.1502	MENTAL HEALTH ASSOCIATE	995	117	878	259	698	1	70		287	117	67
1.1601	ASSOC. DEGREE NURSING	5,341	498	4,843	2,220	2,810	43	147		957	498	1,685
1.1613	PRACTICAL NURSING	1,357	88	1,269	509	780	5	33		290	88	505
1.1614	NURSING ASSISTANT	1,473	83	1,390	725	664	2	41	2	266	83	419
1.1615	HOMEMAKER/HOME HEALTH AI	155	5	150	75	68		2		37	5	109
1.1802	OPTICIANRY	69	43	26	26	36	1	9	2	6		18
1.2399	DEVELOPMENT DISABILITIES	35	6	29	7	27		2		11	6	3
1.2601	THERAPEUTIC RECREATION	239	27	212	86	144	2	10		59	27	31
2.0201	BUSINESS ADMINISTRATION	9,690	3,292	6,398	4,348	4,838	86	362	240	1,230		713
2.0205	INDUSTRIAL MANAGEMENT	1,301	794	507	807	446	14	34		99		102
2.0302	ACCOUNTING	5,058	798	4,260	2,316	2,437	63	193		850	798	493
2.0402	SECRETARIAL-EXECUTIVE	3,684	52	3,632	1,111	2,413	28	182	1	949	52	372
2.0403	SECRETARIAL-LEGAL	363	2	361	130	215	1	14		76	2	54
2.0404	MEDICAL TRANSCRIPTION	2,621	25	2,596	755	1,744	12	113	1	698	25	275
2.0405	COURT REPORTING	23		23	9	11				6		3
2.0407	DATA ENTRY OPERATIONS	66	10	56	37	26	1	3		15	10	4
2.0408	GENERAL OFFICE TECH	1,182	50	1,132	326	762	4	64	49	296	50	107
2.0499	POSTAL SERVICE TECH.	67	42	25	34	32		5		3		6
2.0701	SMALL BUS MGMT: ENTR DEV	1	1		1							
2.0803	BANKING AND FINANCE	235	39	196	134	94	4	5	1	27	39	26
2.0805	INSURANCE (TECHNI SPEC)	59	20	39	51	7	1	1				2
2.0902	HOTEL & RESTAURANT MGMT	334	175	159	155	163	9	22		23		22
2.1101	INTERNATIONAL BUSINESS	71	34	37	51	17	3			3		2
2.1201	MICROCOMPUTER SYSTE TECH	6,730	2,284	4,446	2,891	3,465	51	420	96	1,130		587
2.1202	BUSINESS COMPUTER PROG	4,581	1,867	2,714	1,989	2,322	65	242	30	637		316
2.1204	NETWORKING TECHNOLOGIES	160	112	48	101	49	3	13		4		9
2.1205	COMPUTER OPERATIONS	345	73	272	124	188	6	31		82	73	27
2.1501	REAL ESTATE (TEC SPEC)	1,329	631	698	1,146	121	8	17		66		33
		108,708	45,078	63,630	50,790	50,514	891	4,626	3,464	14,533	5,137	15,437

APPENDIX C

Special Curriculum Student Enrollment

Report for 1995-1996

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
SPECIAL CURRICULUM STUDENT ENROLLMENT REPORT
ANNUAL: 1995-96
NOTE: SOME HEADCOUNTS ARE DUPLICATED AS STUDENTS MAY FALL INTO MORE THAN ONE GROUP

PROGRAM CC120BB

COLLEGE	NUMBER HANDI-CAPPED	ACADEMIC DISAD-VANTAGED	ECONOMIC DISAD-VANTAGED	LIMITED ENGLISH PROFI-CIENCY	TOTAL * UNDUPLICATED DISADVANTAGED	SINGLE PARENT	SINGLE HOME MAKER	TOTAL UNDUPLI-CATED SINGLE PARENT OR HOMEMAKER	TOTAL NUMBER UNDUPLI-CATED SPECIAL POPLN
ALAMANCE CC	174	944	1,488	36	1,981	351	272	549	2,148
ANSON CC	15	82	175		252	102	9	105	325
ASHEVILLE-BUNCOMBE	336	1,470	699	113	2,111	588	265	699	2,445
BEAUFORT COUNTY CC	21	476	208	4	570	87	74	136	597
BLADEN CC	28	286	282	2	446	163	69	214	517
BLUE RIDGE CC	160	622	303	14	831	321	240	442	1,158
BRUNSWICK CC	57	446	209	7	556	139	147	250	657
CALDWELL CC & TI	190	1,267	873	86	1,855	392	381	650	2,138
CAPE FEAR CC	7	2,391	181	3	2,492	44	10	45	2,498
CARTERET CC	37	551	314	33	803	137	315	410	938
CATAWBA VALLEY CC	188	862	671	92	1,496	404	275	555	1,762
CENTRAL CAROLINA C	164	1,744	1,159	27	2,247	360	79	433	2,344
CENTRAL PIEDMONT C	423	3,601	1,920	156	5,185	970	790	1,481	6,083
CLEVELAND CC	33	681	466	9	960	331	70	360	1,128
COASTAL CAROLINA C	130	3,530	1,117	32	4,017	242	55	285	4,034
COLLEGE OF ALBEMAR	59	885	856	1	1,298	479	902	1,080	1,743
CRAVEN CC	241	1,914	1,337	34	2,381	466	251	616	2,467
DAVIDSON COUNTY CC	180	940	832	16	1,328	309	293	481	1,480
DURHAM TCC	297	2,979	489	101	3,177	992	649	1,009	3,620
EDGECOMBE CC	58	1,097	1,292	5	1,729	170	34	185	1,762
FAYETTEVILLE TCC	280	4,166	1,332	128	4,476	601	299	792	4,656
FORSYTH TCC	272	1,326	205	12	1,445	158	127	260	1,761
GASTON COLLEGE	172	2,839	471	40	3,015	470	283	659	3,240
GUILFORD TCC	306	377	785	241	1,327	382	484	866	1,858
HALIFAX CC	107	1,134	460	4	1,294	417	185	515	1,406
HAYWOOD CC	125	512	423	9	875	177	210	316	980
ISOTHERMAL CC	19	1,189	77		1,213	26	31	53	1,244
JAMES SPRUNT CC	78	641	737	3	1,020	248	70	288	1,070
JOHNSTON CC	188	940	607	5	1,240	143	91	197	1,349
LENOIR CC	93	1,338	451	3	1,528	463	116	563	1,691
MARTIN CC	45	512	406		626	174	78	228	656
MAYLAND CC	52	336	261	5	467	83	116	168	501
MCDOWELL TCC	80	407	418	20	694	225	162	351	811
MITCHELL CC	97	1,399	475	12	1,541	291	89	341	1,602
MONTGOMERY CC	36	38	134		160	75	54	104	203
NASH CC	92	1,151	122	9	1,207	181	140	289	1,335
PAMLICO CC	23	145	80	4	172	52	34	76	191
PIEDMONT CC	29	418	161	2	520	88	31	103	560
PITT CC	558	3,564	1,072	59	4,089	730	104	778	4,465
RANDOLPH CC	70	991	175	5	1,045	99	52	137	1,095
RICHMOND CC	19	482	355	2	738	223		223	804
ROANOKE-CHOWAN CC	40	708	866		1,007	214	131	269	1,036

* TOTAL DISADVANTAGED INCLUDES ACADEMIC, ECONOMIC, AND LIMITED ENGLISH SPEAKING

NORTH CAROLINA COMM..TY COLLEGE SYSTEM
SPECIAL CURRICULUM STUDENT ENROLLMENT REPORT
ANNUAL: 1995-96

NOTE: SOME HEADCOUNTS ARE DUPLICATED AS STUDENTS MAY FALL INTO MORE THAN ONE GROUP

PROGRAM CC120BB

COLLEGE	NUMBER HANDI-CAPPED	ACADEMIC DISAD-VANTAGED	ECONOMIC DISAD-VANTAGED	LIMITED ENGLISH PROFI-CIENCY	TOTAL * UNDUPLICATED DISADVANTAGED	SINGLE PARENT	SINGLE HOME MAKER	TOTAL UNDUPLI-CATED SINGLE PARENT OR HOMEMAKER	TOTAL NUMBER UNDUPLI-CATED SPECIAL POPLN
ROBESON CC	79	612	718	8	1,227	217	168	316	1,290
ROCKINGHAM CC	145	896	249	16	1,010	261	70	284	1,184
ROWAN-CABARRUS CC	146	2,552	1,030	56	2,850	516	438	829	3,077
SAMPSON CC	76	705	647		1,004	273	90	357	1,068
SANDHILLS CC	65	1,794	1,106	5	2,222	123	87	171	2,247
SOUTHEASTERN CC	19	665	545	18	945	213	80	246	1,019
SOUTHWESTERN CC	66	760	142	2	802	110	105	169	862
STANLY CC	148	1,179	674	15	1,501	306	219	403	1,612
SURRY CC	132	684	428	6	929	236	165	363	1,169
TRI-COUNTY CC	143	557	449	16	737	145	125	243	829
VANCE-GRANVILLE CC	98	920	492	3	1,247	207	101	270	1,350
WAKE TCC	929	3,601	1,330	273	4,291	376	283	598	4,825
WAYNE CC	181	2,047	1,070	1	2,386	407	278	612	2,518
WESTERN PIEDMONT C	65	1,269	529	11	1,608	263	267	454	1,739
WILKES CC	74	828	784	5	1,259	166	3	168	1,319
WILSON TCC	44	1,045	530		1,187	79	53	102	1,201
	7,989	71,495	35,667	1,769	90,619	16,465	10,599	23,146	99,667

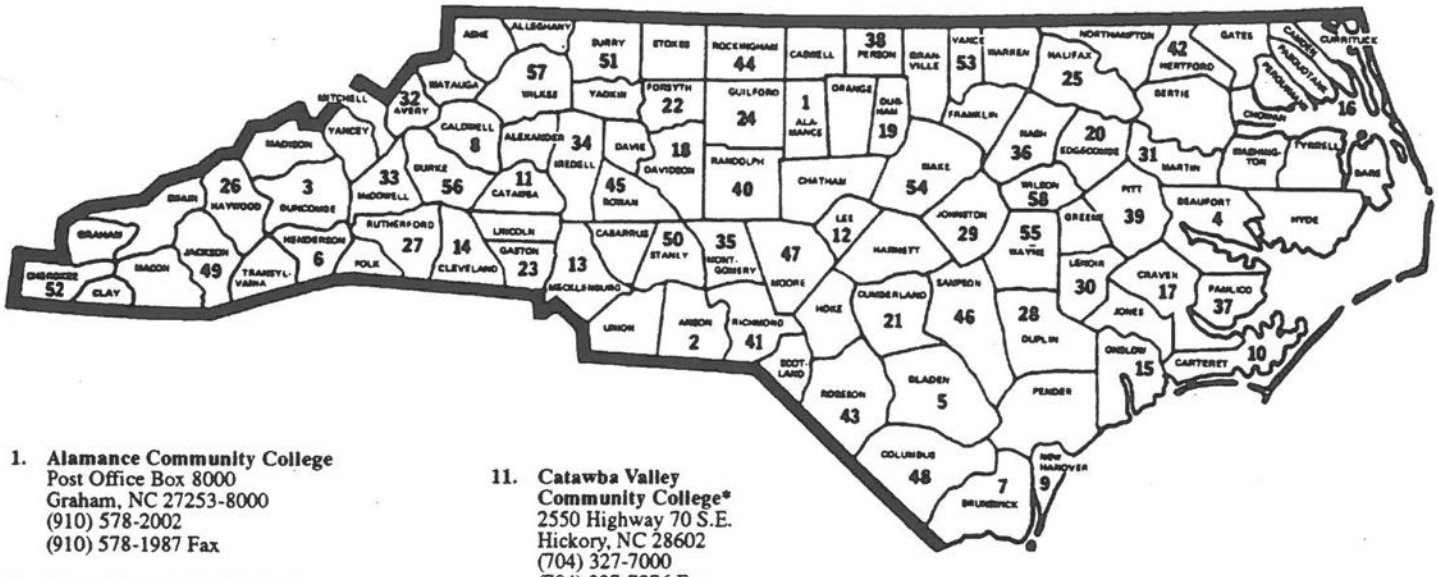
* TOTAL DISADVANTAGED INCLUDES ACADEMIC, ECONOMIC, AND LIMITED ENGLISH SPEAKING

APPENDIX D

Member Community Colleges

North Carolina Community College System

The North Carolina Community College System



1. **Alamance Community College**
Post Office Box 8000
Graham, NC 27253-8000
(910) 578-2002
(910) 578-1987 Fax

2. **Anson Community College***
Post Office Box 126
Polkton, NC 28135
(704) 272-7635
(704) 272-8904 Fax

3. **Asheville-Buncombe Technical Community College***
340 Victoria Road
Asheville, NC 28801
(704) 254-1921
(704) 251-6355 Fax

4. **Beaufort County Community College***
Post Office Box 1069
Washington, NC 27889
(919) 946-6194
(919) 946-0271 Fax

5. **Bladen Community College**
Post Office Box 266
Dublin, NC 28332
(910) 862-2164
(910) 862-3484 Fax

6. **Blue Ridge Community College***
College Drive
Flat Rock, NC 28731
(704) 692-3572
(704) 692-2441 Fax

7. **Brunswick Community College***
Post Office Box 30
Supply, NC 28462
(910) 754-6900
(910) 754-7805 Fax

8. **Caldwell Community College and Technical Institute***
1000 Hickory Boulevard
Hudson, NC 28638
(704) 726-2200
(704) 726-2216 Fax

9. **Cape Fear Community College***
411 N. Front Street
Wilmington, NC 28401
(910) 251-5100
(910) 763-2279 Fax

10. **Carteret Community College***
3505 Arendell Street
Morehead City, NC 28557
(919) 247-6000
(919) 247-2514 Fax

11. **Catawba Valley Community College***
2550 Highway 70 S.E.
Hickory, NC 28602
(704) 327-7000
(704) 327-7276 Fax

12. **Central Carolina Community College***
1105 Kelly Drive
Sanford, NC 27330
(919) 775-5401
(919) 775-1221 Fax

13. **Central Piedmont Community College***
Post Office Box 35009
Charlotte, NC 28235
(704) 330-6719
(704) 330-5045 Fax

14. **Cleveland Community College***
137 S. Post Road
Shelby, NC 28150
(704) 484-4000
(704) 484-4036 Fax

15. **Coastal Carolina Community College***
444 Western Boulevard
Jacksonville, NC 28546
(910) 455-1221
(910) 455-7027 Fax

16. **College of The Albemarle***
Post Office Box 2327
Elizabeth City, NC 27909-2327
(919) 335-0821
(919) 335-2011 Fax

17. **Craven Community College***
800 College Court
New Bern, NC 28562
(919) 638-4131
(919) 638-4232 Fax

18. **Davidson County Community College***
Post Office Box 1287
Lexington, NC 27292
(704) 249-8186
(704) 249-0088 Fax

19. **Durham Technical Community College***
1637 Lawson Street
Durham, NC 27703
(919) 686-3300
(919) 686-3412 Fax

20. **Edgecombe Community College***
2009 W. Wilson Street
Tarboro, NC 27886
(919) 823-5166
(919) 823-6817 Fax

21. **Fayetteville Technical Community College***
Post Office Box 35236
Fayetteville, NC 28303-0236
(910) 678-8400
(910) 484-6600 Fax

22. **Forsyth Technical Community College***
2100 Silas Creek Parkway
Winston-Salem, NC 27103-5197
(910) 723-0371
(910) 761-2399 Fax

23. **Gaston College***
201 Highway 321 South
Dallas, NC 28034-1499
(704) 922-6200
(704) 922-6440 Fax

24. **Guilford Technical Community College***
Post Office Box 309
Jamestown, NC 27282
(910) 334-4822
(910) 454-2510 Fax

25. **Halifax Community College***
Post Office Drawer 809
Weldon, NC 27890
(919) 536-2551
(919) 536-4144 Fax

26. **Haywood Community College***
1 Freedlander Drive
Clyde, NC 28721
(704) 627-2821
(704) 627-3606 Fax

27. **Isothermal Community College***
Post Office Box 804
Spindale, NC 28160
(704) 286-3636
(704) 286-1120 Fax

28. **James Sprunt Community College***
Post Office Box 398
Kenansville, NC 28349-0398
(910) 296-1341
(910) 296-1636 Fax

29. **Johnston Community College***
Post Office Box 2350
Smithfield, NC 27577
(919) 934-3051
(919) 934-2823 Fax

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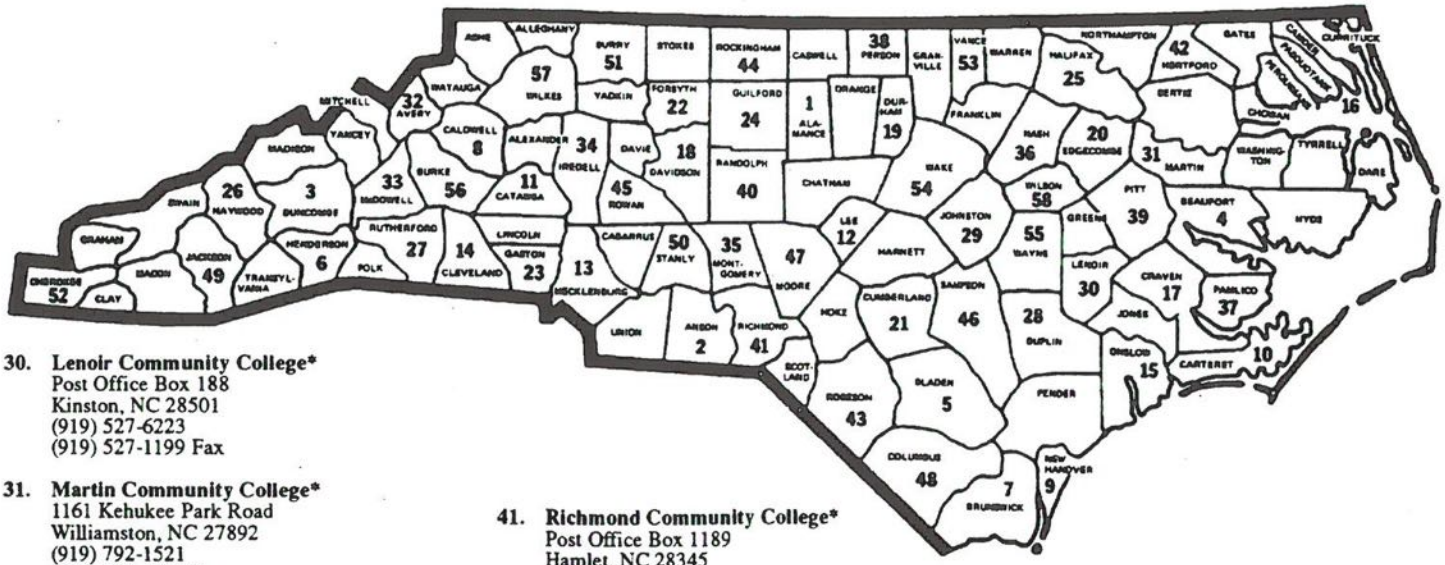
North Carolina Community College System
Lloyd V. Hackley, System President
(919) 733-7051

Caswell Building, 200 W. Jones Street
Raleigh, NC 27603-1379
Fax (919) 733-0680

The North Carolina Community College System



30. **Lenoir Community College***
Post Office Box 188
Kinston, NC 28501
(919) 527-6223
(919) 527-1199 Fax

31. **Martin Community College***
1161 Kehukee Park Road
Williamston, NC 27892
(919) 792-1521
(919) 792-4425 Fax

32. **Mayland Community College***
Post Office Box 547
Spruce Pine, NC 28777
(704) 765-7351
(704) 765-0728 Fax

33. **McDowell Technical Community College***
Route 1, Box 170
Marion, NC 28752
(704) 652-6021
(704) 652-1014

34. **Mitchell Community College***
West Broad Street
Statesville, NC 28677
(704) 878-3200
(704) 878-0872 Fax

35. **Montgomery Community College***
Post Office Box 787
Troy, NC 27371
(910) 576-6222
(910) 576-2176 Fax

36. **Nash Community College***
Post Office Box 7488
Rocky Mount, NC 27804-7488
(919) 443-4011
(919) 443-0828 Fax

37. **Pamlico Community College***
Hwy. 306 South
Grantsboro, NC 28529
(919) 249-1851
(919) 249-2377 Fax

38. **Piedmont Community College***
Post Office Box 1197
Roxboro, NC 27573
(910) 599-1181
(910) 597-3817 Fax

39. **Pitt Community College***
Post Office Drawer 7007
Greenville, NC 27834
(919) 321-4200
(919) 321-4401 Fax

40. **Randolph Community College**
Post Office Box 1009
Asheboro, NC 27204-1009
(910) 633-0200
(910) 629-4695 Fax

41. **Richmond Community College***
Post Office Box 1189
Hamlet, NC 28345
(910) 582-7000
(910) 582-7028 Fax

42. **Roanoke-Chowan Community College***
Route 2, Box 46-A
Ahoskie, NC 27910
(919) 332-5921
(919) 332-2210 Fax

43. **Robeson Community College***
Post Office Box 1420
Lumberton, NC 28359
(910) 738-7101
(910) 671-4143 Fax

44. **Rockingham Community College***
Wentworth, NC 27375
(910) 342-4261
(910) 349-9986 Fax

45. **Rowan-Cabarrus Community College***
Post Office Box 1595
Salisbury, NC 28145-1595
(704) 637-0760
(704) 637-3692 Fax

46. **Sampson Community College***
Post Office Box 318
Clinton, NC 28328
(910) 592-8081
(910) 592-8048 Fax

47. **Sandhills Community College***
2200 Airport Road
Pinehurst, NC 28374
(910) 692-6185
(910) 692-2756 Fax

48. **Southeastern Community College***
Post Office Box 151
Whiteville, NC 28472
(910) 642-7141
(910) 642-5658 Fax

49. **Southwestern Community College***
447 College Drive
Sylva, NC 28779
(704) 586-4091
(704) 586-3129 Fax

50. **Stanly Community College***
141 College Drive
Albemarle, NC 28001
(704) 982-0121
(704) 982-0819 Fax

51. **Surry Community College***
Box 304
Dobson, NC 27017
(910) 386-8121
(910) 386-8951 Fax

52. **Tri-County Community College***
2300 Highway 64 East
Murphy, NC 28906
(704) 837-6810
(704) 837-3266 Fax

53. **Vance-Granville Community College***
Box 917
Henderson, NC 27536
(919) 492-2061
(919) 430-0460 Fax

54. **Wake Technical Community College***
9101 Fayetteville Road
Raleigh, NC 27603
(919) 662-3400
(919) 779-3360 Fax

55. **Wayne Community College***
Caller Box 8002
Goldsboro, NC 27533-8002
(919) 735-5151
(919) 736-3204 Fax

56. **Western Piedmont Community College***
1001 Burkemont Avenue
Morganton, NC 28655
(704) 438-6000
(704) 438-6015 Fax

57. **Wilkes Community College***
Post Office Box 120
Wilkesboro, NC 28697
(910) 838-6100
(910) 838-6277 Fax

58. **Wilson Technical Community College***
Post Office Box 4305-Woodard Station
Wilson, NC 27893
(919) 291-1195
(919) 243-7148 Fax

North Carolina Center for Applied Textile Technology (in Gaston County)
Post Office Box 1044
Belmont, NC 28012
(704) 825-3737
(704) 825-7303 Fax

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Preparing North Carolina's World-class Workforce

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

APPENDIX E

School-to-Work

North Carolina Community College System
School-to-Work Efforts
November 1996

The North Carolina Community College System has been extremely active in School-to-Work (JobReady in North Carolina) efforts throughout the state. The efforts have been both systematic and grassroots.

The System Office has been providing leadership to counties throughout the state by defining and propagating processes to help local JobReady Partnerships get established and functional. Utilizing total quality management techniques based on a Baldrige framework, support has been provided to local partnerships in the following areas:

- Recruiting business partners
- Generating strategic plans
- Bench marking programs/processes
- Selling JobReady concepts at conferences, chamber of commerce meetings, etc.
- Team-building
- Implementing process-driven, sustainable, and systematic JobReady systems
- Assessing and reporting progress

At the grassroots level, the individual community colleges have been extremely active members of their local JobReady partnerships. Examples of local activities and programs are as follows:

- Forming partnerships with local high schools
- Providing tours/shadow days for middle school students
- Sharing technology expertise (e.g., consulting, Net Day support, sharing resources, etc.)
- Generating brochures, videotapes, and other literature for high school students
- Tutoring/Mentoring
- Acting as fiscal agents for JobReady funding
- Orchestrating and writing JobReady grants
- Setting up articulation agreements as required
- Chairing and participating on many JobReady committees
- Providing staff development opportunities for K-12 educators

An example of "walking the talk" is that the System Office has recently formed a partnership with a local high school, Mary Phillips HS. A student has been hired for part-time administrative support; a mentoring program has started and plans for a shadowing program are underway.