

North Carolina

Performance Report

Program Year 1994-95

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



Public Schools of North Carolina

State Board of Education • Jay Robinson, Chairman

Department of Public Instruction • Bob Etheridge, Superintendent

Vocational and Technical Education

North Carolina Community College System • Lloyd V. Hackley, President

**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
1994-95**

Vocational and Technical Education conducts activities and procedures without regard to race, color, national origin, sex 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, 1994 - June 30, 1995. This report is a compliance document for the US 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 1995 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 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 115-153, to approve and submit the FY 95 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)

12-7-95

Date

Jay M. Robinson

Chairman, NC State Board of Education

12-7-95

Date

Bob Ertmer

State Superintendent of Public Instruction

Secondary Services & Activities

Vocational and Technical Education

Vocational and Technical 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 Vocational and Technical Education is to empower students for effective participation in a global economy as world class workers and citizens.

Purpose

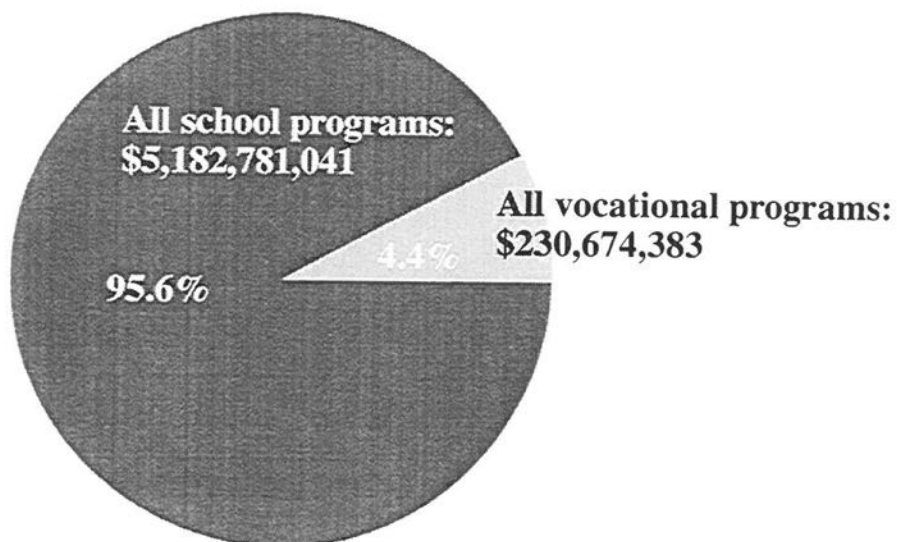
The purposes of Vocational and Technical Education are to:

- Prepare students for further vocational and technical 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 vocational and technical education programs.

Served:



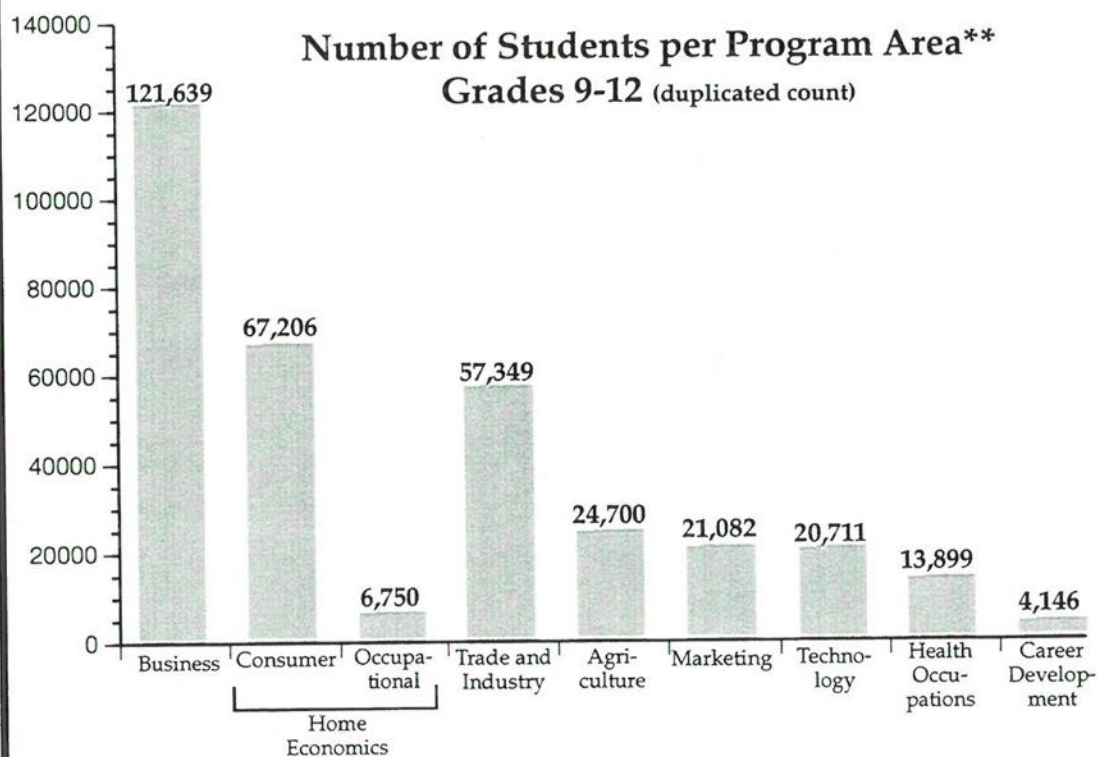
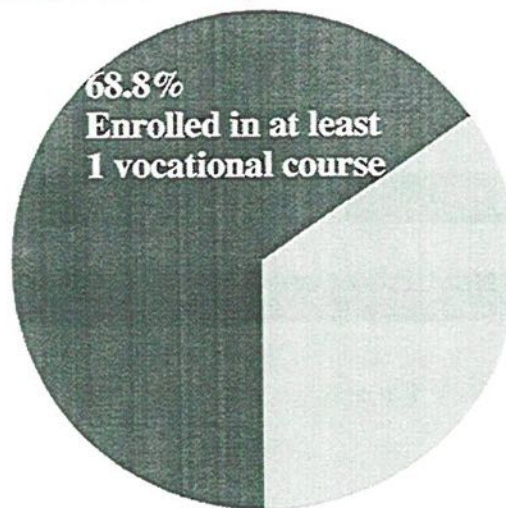
Expenditures:
(93-94)



**Vocational
and
Technical
Education**

Total statewide enrollment in Grades 9-12: 306,493

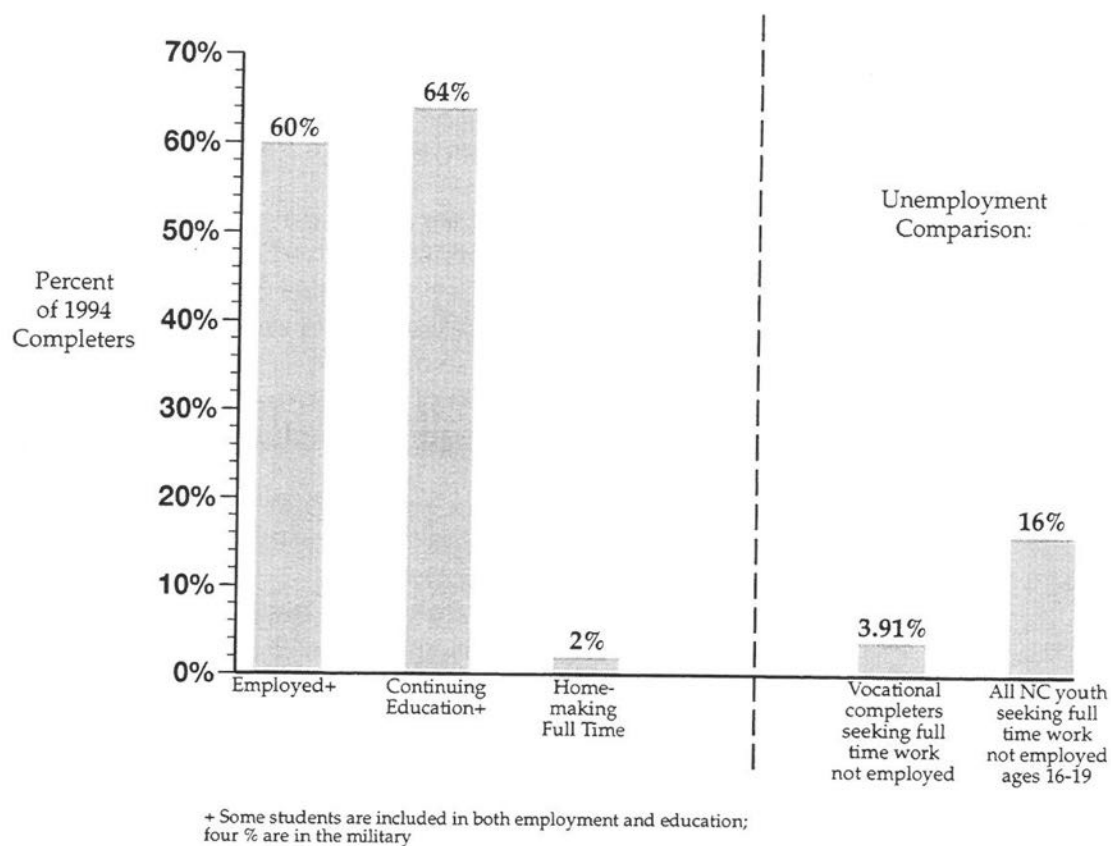
Total statewide enrollment in
Vocational Education Grades 9-12: 210,944*
(unduplicated count)



*Total student enrollment for Vocational and Technical Education Grades 6-8:
214,829 (duplicated count)

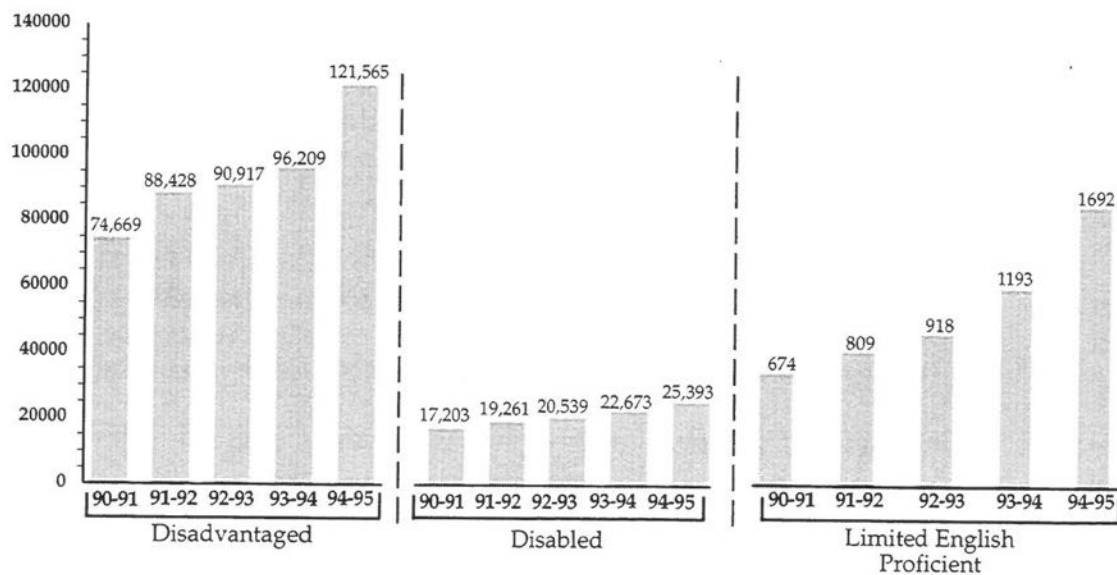
**See Appendix 1 for additional information.

Status of the 33,990 Vocational and Technical Education completers:



Completers of Vocational and Technical Education

Number of Special Populations Students in Grades 9-12



Special Populations Enrollment Trends

Summary of Achievements

Curriculum

Professional Development

Performance System

Involvement

Gender Equity

Single Parents

CBOs

Consumer and Homemaking

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 provided:

- Development and distribution of 16 curriculum guides, 107 test-item banks, and 42 course blue-prints;
- Professional development for approximately 10,000 teachers and administrators (duplicated count);
- Implementation of Tech Prep programs in 63 consortia. Approximately 77,000 students are now pursuing a tech prep course of study;
- Continued implementation of and use of evaluation data for the established vocational performance system;
- Use of electronic system for preparation and transfer of LEA annual local plans/applications and for data collection and distribution;
- Involvement of approximately 3,500 business/industry personnel in curriculum development, professional development, and vocational student organization activities.

During the 1994-1995 school year, 20 gender equity grants were awarded to address gender equity issues. Approximately \$650,000 was used to provide programs and activities for more than 7,570 youth in grades 6-12.

Seven single parent, displaced homemakers and single pregnant women grants were awarded to provide programs and services to 417 students at the secondary level. These students were assisted in continuing their education, developing marketable skills, and accessing vocational training.

Community based organization grants (CBOs) enabled 311 special needs youth the opportunity to receive pre-employment and/or job training preparation. The number of youth served from these funds continued to increase.

Consumer and homemaking resources were used for grants to local school systems. Of the \$899,049 available for grants, 41 percent (10 grants) was spent in economically depressed areas. These grants focused on services to at-risk students and addressed specific local, state, and national priorities. Twelve grants were made available to non-depressed areas.

Tech prep grants were awarded to 79 LEAs and served approximately 77,000 secondary students. Articulation agreements, integration of academic and vocational courses, and guidance activities were completed.

Career guidance and counseling services were provided for students in program planning, career guidance and counseling, job placement, and postsecondary education. Emphasis was placed on counseling students for Tech Prep and apprenticeship programs, getting parents involved in the career-decision making process, and assisting students in developing four-year personalized career plans.

Collaboration continued with the Governor's Commission on Workforce Preparedness, Department of Labor, Department of Community Colleges, and Department of Commerce in developing workforce preparedness policy, expanding and implementing school-to-work initiatives, and tech prep.

Collaboration

Performance Measures and Standards

The system for performance measures and standards were implemented in the 119 school systems (100%) statewide. The Committee of Practitioners met to review progress and to make recommendations for revisions in the system. Results were compared within and among the secondary and postsecondary systems. Both the U. S. Department of Education and the RAND Corporation conducted on-site reviews, with each indicating that North Carolina had an exemplary system.

Committee of Practitioners' Contribution

Results of the Vocational and Technical Education Performance System Teams' planning and work were:

- **Revision of computer programs** to generate performance standards data by school. This change has helped promote site-based decision making.
- **Development of performance standard reports** by LEA and all high schools. These reports showed the degree to which each standard was attained by each program area within each school and LEA. Each LEA used these reports to plan and allocate resources, based on deficient areas. Each LEA's local plan was then prepared and transferred to the state office electronically.
- **Staff development initiatives.** Activities included six regional workshops for vocational directors, focusing on total quality tools and the Baldrige system for analyzing performance systems.

Progress Made

Assistance To LEAs

Ask the customer. At the statewide summer workshop, training sessions were conducted for two groups of about 1,000 teachers each and one group of directors and coordinators, totaling about 500. During these sessions, feedback was gained through an interactive mode called the Optionfinder. With this information, the state determined the knowledge and status for teachers' and coordinators' perspectives on performance standards.

Materials development. The performance system operational handbook was updated. Materials were also developed to show relationship between all the data and each of the performance standards. These materials were distributed to all vocational directors and appropriate LEA administrators in the fall of 1994.

Coordination

The Governor's Commission on Workforce Preparedness cooperated with the National Governor's Association to be one of six states to develop a national prototype of a workforce development performance management system including the performance system design. This project was carried out during the year, in conjunction with other groups and agencies at the state level. The intent was to develop joint performance standards for workforce development.

Performance Standards

Comparison of statewide performance between 1993-1994 and 1994-1995. Please refer to Appendix 2A to see graphs which display progress made in all performance standards and Appendix 2 for a full description of each standard. A comparison of the percentage of vocational and technical education programs attaining performance standards 1,2,6,7 and 8 between 1993-1994 and 1994-1995 follows: (The programs are counted once per school.)

Performance Standards	Percentage of All Programs Statewide Attaining the Standard	
	1993-1994	1994-1995
One	29.19%	70.36%
Two	66.24%	70.36%
Six	44.20%	43.08%
Seven	93.92%	93.91%
Eight	49.91%	47.07%

Single Parents, Displaced Homemakers and Single Pregnant Women

LEAs and community based organizations 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 1994-95 school year, seven LEAs and community based organizations were funded to address the needs of single parents, displaced homemakers, and single pregnant women. These seven programs served a total of 417 students at the secondary level. The following services were provided to participants involved with these funded programs.

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. One program was funded with direct collaboration for implementation between the LEA and a specific community based organization. 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.

*Services
Provided*

Effective Delivery Methods

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

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 parents 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) Five programs included a male support group for the fathers of the participants' children.
- 5) Two programs had provisions on the school campus for the participants to bring their children. One of the programs incorporated an instructional component with interactions of parents with their children.

Staff Development. A statewide Single Parent Program Implementation Workshop was conducted for all program administrators and professional staff. On-going technical assistance was provided to all programs by the state equity consultant. On-site program review visits were made to Jones, McDowell, Warren, Currituck, Weldon, and Rockingham Counties.

Gender Equity Programs

Gender Equity

The goals of the gender equity programs are 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 to apply for grants through the request-for-proposal process. The scope and design of each program varied according to local needs.

During the 1994–95 school year, 20 gender equity grants were awarded to LEAs to address equity issues. Services and activities were provided to 7,570 students in grades six through twelve.

Seventeen 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.

ROPES, a course providing personal challenges, cooperation, teaming, and building of self-esteem and self-confidence, was used to help meet the goals of individual programs.

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 individual 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.

Achievements

Supportive Services

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, and video cassettes.

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 30 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. Three regional Equity Impact Workshops 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, handling 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. The following 20 local school systems were visited by the state equity consultant: McDowell, Granville, Rockingham, Iredell/Statesville, Craven, Roanoke Rapids, Wake, Vance, Wayne, Weldon, Warren, Charlotte, Hoke, Robeson, Currituck, Whiteville, Sampson, Martin, Perquimans, and Wilkes. The southeast regional instructional specialist was engaged to visit equity programs in Onslow, Carteret, Wayne, Sampson, and Rockingham counties.

Materials developed and disseminated statewide included a book, **North Carolina Successful Women in Nontraditional Careers**, a brochure, "Preventing Sexual Harassment in North Carolina Public Schools," and two leaflets/bookmarks, "Get the Equity Edge," and "Sexual Harassment is Not OK."

A final summary report of all funded programs is available in the office of the Equity Consultant. Two exemplary programs sponsored by the Department of Public Instruction and funded with Carl Perkins resources are:

East Carolina University – Technology Adventures Program
North Carolina A. & T. State University – Summer Institute for the Advancement of Gender Equity 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.

The Department of Public Instruction sponsored two two-week residential Summer Technology Institutes for the Advancement of Gender Equity in High Technology for high school females on university campuses in July 1994. 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.

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 39 high school females from 26 counties. The Summer Technology Institute accomplished the following objectives:

- Provided at least ten 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,

*Exemplary
Gender Equity
Programs*

electronics, satellite communication, high speed transportation, desktop graphics, computer construction, computer aided design (CAD), biotechnology, and engineering concepts.

In addition to high technology activities, participants received career related counseling, visited Northern Telecom in the Research Triangle Park and Discovery Place Science Museum in Charlotte. The participants also experienced teleconferencing when a female NASA official addressed both Technology Institutes, North Carolina A. & T. State University and East Carolina University, through teleconferencing setup at North Carolina A. & T. State University, College of Engineering.

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 thirty-four high school females representing twenty-three 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.

Highlights of TAP included a tour of Seymour Johnson Air Force Base and meeting with the first female combat pilot, a trip to Norfolk and tours of the Ford Assembly Plant and Nauticus Museum, and a tour of the Medical School Complex at East Carolina University.

Copies of reports on both Technology Institutes are available in the office of the state Consultant for Gender Equity.

Criminal Offenders in Correctional Institutions

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 1994-1995 school year 1,027 students were admitted. Of the total, 66 percent were minority youth and 87% were male.

The major goal for the year was program assessment. The General Assembly mandated a comprehensive study of the vocational programs. The consulting firm worked in conjunction with the vocational program manager as a self-assessment was conducted. A survey of school personnel and students was conducted to determine the programmatic needs. On-site monitoring was conducted to determine the extent the curriculum, competencies and activities were consistent with those adopted by the Department of Public Instruction. A review of the coordinated efforts for vocational and support services between vocational rehabilitation, the community colleges and special education took place. The results of the needs assessment will be presented in a three-year improvement plan which facilitates goal development and future decision-making.

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. The Division received \$50,000 to use toward these three goals for program improvement.

The accommodation of special needs through the integration of academic and vocational skills was a major focus for all teachers. Vocational and academic teachers were able to use their knowledge from previous in-service trainings to access computer applications which enhanced their instruction across the curriculum. The integrated system of curriculum, lesson planning and instruction made

*Correctional
Institution
Participating*

Students Served

Services

ideas relevant to students by relating them to individual lives and learning. Trainers, including vocational teachers, were designated at each of the schools. As a result, staff development was on-going. This approach set the framework for transferability of basic skills across all disciplines.

In-service training for the implementation of the Vocational Competency Achievement Tracking System (VoCATS) was received by the VoCATS Coordinators. Training these teachers provided the foundation needed to actively utilize the VoCATS process, materials, and software. With the alignment of the curriculum came new approaches to student assessment, program evaluation and reporting. Teachers developed new pre-, post and interim tests. VoCATS Coordinators analyzed the results and reports were generated in graphic form. Additional training was obtained through the regional VoCATS sessions and the Division's monthly VoCATS meetings/in-service trainings. All vocational teachers participated in a summer conference and individual teachers attended specific program area staff development activities.

Achievements

The upgrading of vocational programs through the purchase of equipment significantly improved some of the programs. Courses from six of the program areas offered by the Department of Public Instruction were taught in the schools. The programs included Agricultural Education, Business Education, Career Development, Home Economics Education, Middle Grades Education, and Trade and Industrial Education. Courses benefiting from the purchase of equipment included: Independent Living at C.A. Dillon School; Automotive Technology I at Dobbs School; Horticulture I, Furniture and Cabinet-making I, and Keyboarding at the Juvenile Evaluation Center; Technical Drafting at Samarkand Manor School; and Automotive Technology I, Horticulture I, Furniture and Cabinet-making and Computer Applications at Stonewall Jackson School.

With the federal funds the vocational program was able to make significant progress toward accountability. Integration activities were evident in all of the vocational classes. Classroom instruction accommodated the learning styles of individual students. The vocational curriculum adopted by the State was being implemented in the schools. All vocational teachers received hands-on computer experience generating assessment instruments and some participated in specific program area training sessions. Equipment was purchased to upgrade various programs.

Special Populations - Disabled

Achievement in providing equal access for disabled. The number of disabled students enrolled in vocational and technical education programs reached 23,197 of the 78,653 special populations students enrolled in all classes in the middle grades (grades six through eight). They reached 25,393 of the 148,659 special populations students enrolled in all vocational and technical education classes in grades nine through twelve. This totaled 48,590 students enrolled in all courses in vocational and technical education identified as disabled. These students were enrolled in the full range of vocational offerings and the majority of them participated in the regular vocational programs. Please see Appendix 3 for exemplary program information.

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 childrens' 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, vocational personnel participated to an extent in vocational planning meetings and assisted in the development of the vocational component to the Individual Education Plan (IEP). This participation is not consistent, and remains problematic statewide. As a result, however, 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

*Services
Provided*

Achievements

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.

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. An increasing number of career development plans were developed for each special populations student. These numbers were monitored to determine the degree to which disabled students had access to progress in, and succeed in because of 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 were 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 were noted. Attainments of disabled students in regards to gains on competencies in vocational and technical education programs were tracked through the Vocational Competency Achievement Tracking System. Mastery of these competencies also were tracked for disabled students. 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 childrens' programs 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 Individual Education Plan (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

The statewide total of identified Limited English Proficient (LEP) students enrolled in all 1994-1995 vocational and technical education programs was 1,074 of 78,653 students identified as special populations in the middle grades, and 1,692 of 148,650 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 LOP 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

Access. In the middle grades, 54,382 of the 78,653 special populations students enrolled in all courses in middle grades (six through eight) were identified as disadvantaged. In high school, 121, 565 of the 148,650 special populations enrollees were 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.

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 to develop Career Development Plans listing the vocational and academic coursework needed to attain their career objectives. Each vocational program was monitored to determine if enrollments of disadvantaged students was 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 action was applied through the performance system.

State Leadership & Professional Development

The Vocational and Technical Education Management Plan included specific goals and objectives for the training of vocational personnel including teachers, counselors, teacher educators, and state and local administrators. Priority was given to curriculum integration of academic and vocational education, technical updates including all aspects of the industry, Vocational Competency Achievement Tracking System (VoCATS), Tech Prep, applied curriculum, and special populations.

Workshop title and attendance at the personnel development workshops sponsored by Vocational and Technical Education were categorized by program areas and included the following information. (Note this information is representative and not exclusive).

Representative Personnel Development Activities

The following information includes target group names, number of participants and topics.

Teacher Educators

Number	Topic
18	Preparing Teachers for Performance Measures and Standards for Vocational and Technical Education Programs.

Gender Equity

70	Regional staff development workshops for local gender equity leaders
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Health Occupations Education

552	Distance Learning System broadcast on improving test scores
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Business Education

450	Summer Workshop Training/Updates
	Distance Learning System broadcast on computer proficiency skills

Marketing Education

12	New Teacher Conference
155	Summer Workshop

Trade & Industrial Education

- 450 Vocational Summer Workshop

Technology Education

- 30 Principles of Technology (PT) I
- 12 Principles of Technology II
- 20 PT Electronics
- 16 PT Advanced Electronics
- 25 New Teacher Workshop
- 7 PT Physics
- 110 Vocational Summer Workshop

Family & Consumer Sciences

- 13 Two day GRADS workshop
- 31 Future Directions workshop
- 54 Management team workshop
- 130 Technical update mini session workshops
- 3818 Nine fall leadership meetings
- 600 Vocational Summer Workshop

Vocational Directors

- 145 Processing and Using Data to Better Attain Performance Standards
- 150 Using the Vocational Competency Achievement Tracking System to Attain Performance Standards
- 150 Developing the Local Application for High Performance Vocational Education

Special Populations Coordinators

- 135 Regional Updates for Special Populations Coordinators
- 122 Special Populations Coordinators Certification Workshop
- 122 High Performance for Special Populations Coordinators
- 118 Vocational and Technical Education Summer Workshop for Special Populations Coordinators

Agriculture Education

- 230 Vocational Summer Workshop
- 14 Computerized Landscape Design
- 24 Tissue Culture (Horticulture Science)
- 13 Equine Behavior (Horse Management)

Curriculum Development

Test Items

About 30,000 test items were developed or revised as work continued on the Vocational Competency Achievement Tracking System (VoCATS), a system for planning, implementing and evaluating instruction. The information provided by VoCATS about the current level of student performance in vocational and technical education programs is required for documenting student competency mastery/gains and setting performance goals.

Course Blueprints

Throughout the year, 42 course blueprints were completed and/or refined, for a total of 119. Blueprints outline the scope of the curriculum outcomes for a given course, as well as list the units of instruction, core competencies in each unit, specific objectives for each competency, type of outcome behavior and integrated skill area. Blueprints are intended to be used by teachers in planning the course of work, for preparing daily lesson plans, and in developing instructionally valid, pre-interim-post assessments.

Curriculum Guides

During the 1994-95 school year, 16 curriculum guides were developed or adopted. Curriculum guides provide detailed information on units of instruction, including resources and instructional and evaluation strategies. Guides include suggestions integrating basic skills and higher order thinking skills and for working with special populations. There are currently 81 curriculum guides that have been developed or adopted.

Computerized Assessment

Thirty-nine computerized test-item banks were developed or revised during 1994-95. These banks are tied specifically to the competencies and objectives in the blueprint and are designed for use by teachers in constructing interim assessments. There are 107 test-item banks now available.

Using the blueprints and test-item banks, 112 statewide pre/post assessments were developed and made available to local school systems. Local personnel use student performance data from these statewide assessments, or develop their own if they wish using the course blueprint and test-item banks, to generate reports that indicate how well courses are meeting performance standards for gain and mastery.

The computerized instructional management software was upgraded and made available to personnel in each school system. In addition, user conferences and training workshops were offered for local vocational directors, VoCATS coordinators and other staff members directly involved in the use of VoCATS within each LEA.

Data from these tests have been analyzed. (See Appendix 2-A, specifically Standards three and four. This information is representative of the analysis made from all data in all program areas.) More data information is available from the state VoCATS consultant.

VoCATS products are available for the courses and programs in the Vocational and Technical Education Programs of Study and Support Services Guide. Efforts continued to develop new materials, to update existing materials, to keep them relevant as vocational and technical education empowers young people in North Carolina for effective participation in a global economy as world class workers and citizens. Additional work took place to further refine the system itself, making it more usable and useful for local educators.

Research

Research in Vocational and Technical Education during the 1994-95 school year was focused on the integration of academic and vocational/technical education, impacts from alternative scheduling and administrator perceptions on NC's vocational/technical student tracking system (VoCATS). The secondary home economics 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

Research Title

Researcher(s) & Institution

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

Achievements

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. The recently consolidated Nash/Rocky Mount systems have gained statewide recognition for the programs they have developed. Each program represents a collaborative effort on the part of the North Carolina Department of Labor, the local school system, and business and industry. In May of 1994, the annual Andrew Johnson Memorial Apprenticeship Forum was held and over 400 representatives from business, industry and education attended. For the first time in the history of the forum, high school youth apprenticeship programs were given special recognition. Further expansion of apprenticeships in rural counties, the North Carolina Rural Economic Development Council provided funding for the development and expansion of programs.

The typical high school apprentice in North Carolina (during the 1994-95 school year) was:

- White Male
- Senior
- 17 years old
- Placement related to the Technology pathway
- Generally found in central NC

High school youth apprenticeship programs were a major focus in the overall mission of developing a comprehensive and coordinated workforce preparedness system for North Carolina. A position was funded jointly by the North Carolina Departments of Labor and Public Instruction to coordinate the work of these two agencies in their joint high school youth apprenticeship efforts.

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) High schools can change the way they prepare students in general and vocational programs of study;
- (3) All students in general and vocational programs of study can complete a challenging planned four-year program of study with a blending of high-level academic and modern vocational courses;
- (4) The program of study for career-bound students can be organized to prepare students for both work and further study; and
- (5) Teachers should use functional and applied learning strategies related to real world situations to help career-bound students.

The number of SREB/HSTW sites in the state increased from 13 to 19. Eighteen of the nineteen sites revised their action plans around the ten key practices by using available student performance data and were data driven. All sites have signed memos of agreements and completed demographic reports. Seven of the sites received a three-day technical assistance visit and a follow-up written report. These visits are made by professionals outside the school system with knowledge and expertise of HSTW.

Two schools were selected as one of the seven most improved sites in the SREB Consortium and as demonstration models. The schools were Hoke County High School in Hoke County and Swain County High School in Swain County. One site, Hoke County High School, was selected as an advanced site. Roanoke High was selected for special funding by SREB/HSTW to focus on math improvements.

A number of sites participated on staff development activities available through SREB/HSTW. There were 100 participants in the workshop, "Reading For Learning". A one-hour distance learning overview of Reading for Learning was communicated to all sites. Ten sites participated in the workshop, "Improving Mathematics Instruction for Career-Bound Students". Two sites participated in the program "Revising

High School Business Studies". Eight sites participated in "Work- Based Learning" Workshops. Thirteen of the 19 sites plus six promising new sites participated in the Annual SREB/HSTW Conference (195 participants compared to 120 in 1994).

South View High was selected to continue as one of SREB Youth Apprenticeship sites. Two sites, Union High in Sampson County and West Iredell High in Iredell/Statesville, provided an orientation for their total faculty on SREB/HSTW.

During the year, two statewide meetings were held for the NC SREB/HSTW sites. These meetings focused on site action plan development, technical assistance visits and interpreting NAEP assessments, performance results and surveys.

Community Based Organizations

Students Served

Number Served

During the 1994-1995 school year, 311 economically and academically disadvantaged students, ages 16-21, were provided services from community-based organization grant funds.

Urban and Rural Areas Served

Contracts were competitively awarded to the following LEAs: Martin County, Wilson County, Yancey County, Sampson County, and Haywood County. Four of the projects were awarded to rural localities and one to an urban locality. Yancey County is classified as disadvantaged by several criteria: 1) severe rural isolation, 2) economic depression, and 3) low educational attainment. Wilson County's median income is \$15,000 with an economic blend of agriculture, business and industry. Sampson County, one of the rural areas, has a growing number of working poor. Haywood County is a rural area which has a vast array of socioeconomic levels. Eighty-five percent of the students attending this school system are recipients of the AFDC program. Martin County received a funded project and the county has families whose income fell between the poor and lower-middle income range, sometimes classified as the "working poor".

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

The participants of these programs also received comprehensive assessment services designed to determine their: vocational aptitudes, interests, and abilities; need for service coordination, work history and expectations; and barriers to employment such as transportation, day care, health problems, etc. This information was used to develop individual educational and employment goals. Vocational Rehabilitation was responsible for assessing the students enrolled in the 11th and 12th grades.

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. Students received training in job interviewing, completing job applications, using printed audiovisual materials, role playing, and job searching. They received information about job duties, wage rates, grievance procedures, time sheets, other reporting requirements, and jobs available in the area. Therefore, jobs had to be developed and supported by the projects as incentives for employers to hire participants. Job sites included the LEA, and city and county offices.

The primary goal of most of the programs were to assist interested disadvantaged students in making a successful transition from high school to a local community college or four-year institution, thereby enabling them to continue their education and skill development. A Career Development Plan was developed for each of the participants. These plans were based on career counseling.

Exemplary CBO Program

Wilson County Schools and Wilson Opportunities Industrialization Center developed Vocational Education Support Training (VEST). This was designed for academically and economically disadvantaged dropouts and potential dropouts. The purpose of the project was to prevent "at-risk" youth from dropping out of school and to promote the re-entry of students with a 26-week individualized learning program of support activities and of vocational training such as data entry operators, clerks and/or related service occupations.

VEST combined courses aimed at behavior modification with special support service activities. These services were designed to help at-risk students achieve success in the selected vocational training program. A laboratory course provided hands-on training with equipment necessary to obtain competencies in selected vocational areas and on-the-job vocational training. Of the 25 students enrolled in the program, 11 graduated, 12 planned to return to school and 2 were undecided.

Consumer and Homemaking Education

Students Served

Programs and Support Services in Depressed Areas

The Vocational Education Information System data showed the 1994-95 enrollment for Consumer Home Economics in grades 6-12 increased 13 percent to 101,413 students. This was largely due to concentrated scheduling which allows students to take more courses. This enrollment represents 18.2 percent of students taking vocational and technical education in North Carolina.

Consumer and Homemaking set-aside resources were used for grants competitively awarded to local school systems. The grants were awarded for two years. In most grant applications, the first year's activities were primarily for planning and the second year's activities were to be for development. Since the federal rescission bill was passed, many products will not be developed. Of the \$899,049 applied to grants, 41% was spent in economically depressed areas. This represented 10 of the 22 grants awarded or 45 percent of grants awarded.

Programs and Services

Consumer Home Economics continues to serve special population students in North Carolina. Of the total of all students served in grades 9-12, 43 percent were disadvantaged and 8 percent were disabled. The total enrollment of special population students in grades 9-12 comprised 43 percent of all vocational enrollees statewide. The percentage of special population students enrolled in Consumer Home Economics continues to increase.

The funded grants focused on the purposes found in Perkins legislation. Eleven of the 22 grants encouraged participation of traditional underserved populations. These included coordination of services for families of at-risk students, development of resources for at-risk students, and teaching parenting skills to teen parents. Twenty of the 22 grants addressed special local, state and national priorities and emerging concerns such as addressing SCANS in living skills, integration of academics and Consumer Home Economics, and improving the use of technology.

All of the instructional areas listed in the legislation were utilized by one or more of the 22 grants. Instructional areas most frequently identified were applying skills in the work of the family to skills necessary in jobs and careers; evaluating the impact of new technology on life and work; understanding consumer choices; and analyzing individual, child, and/or family nutrition and wellness.

Implementation strategies selected most often were development of instructional materials, demonstration of innovative and exemplary projects, upgrading of equipment, and application of academic skills.

A final summary report of all grants is available in the State Home Economics Education Office. The three exemplary programs/projects summarized in Appendix 6 are:

Martin	SCANS: Content, Curricula, Context – Phase II
Robeson	Consumer Home Economics 2000 – Phase II
Warren	BASICS in Home Economics – Part 3

Programs and Support Services in Non-Depressed Areas

Twelve of the 22 grants for 1994–95 were awarded to non-depressed areas. Of the 12, seven directly related to serving disadvantaged and underserved populations. These included specialized services for teen parents, strategies for teachers serving special populations, technological integration and resource development.

Implementation strategies most frequently used were application of academics, impact of technology on life and work, and family nutrition and wellness.

A final summary report of all grants is available in the State Home Economics Education office. The three exemplary projects summarized in Appendix 6 are:

Catawba	Food Science on the Information Highway
Randolph	Recruiting, Retaining, and Recognizing Home Economics Teachers in North Carolina
Wake	Establishing Model Consumer Home Economics Programs that Use Classroom Manager and Academically Integrated Curriculums

Achievements in State Leadership and State Administration

The state directed the development of 5 course blueprints and 3 test item banks, six workshops, and 22 grants to school systems for \$899,049. Modifications to the program of study were reviewed and approved for 14 courses. FHA/HERO membership data and funds were monitored.

Coordination was achieved with gender equity issues and programs. The state gender equity coordinator assisted in the reviewing of Consumer Home Economics Grant applications. The state home economics staff assisted in reviewing the Summer Technology Institute applications and participated in the institute. The state gender equity coordinator assisted in judging state competitive events for FHA/HERO.

Achievements

Benefits

The most comprehensive teacher in-service training offered was the Home Economics Education Summer Workshop for 594 teachers and teacher educators. The most comprehensive student in-service training for secondary students was the FHA/HERO State Leadership Conference for 1,907 students and teacher-advisers.

At the Home Economics Education Summer Workshop, concurrent workshops and presentations were offered in curriculum development, technology, instructional management, instructional innovations, and food science. The grant directors and administrators delivered concurrent workshops on their respective grants. The evaluation completed by teachers indicated an overall conference rating of excellent.

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

The Home Economics Education priorities comprehensively contained all aspects of curriculum and instruction. These priorities were identified as: 1) accountability, 2) school to work, 3) special populations, 4) tech prep, and 5) VoCATS. All of the grants had objectives and strategies which encompassed the priorities. Grants most frequently included priorities of special populations, VoCATS, and Tech Prep.

Course blueprints and test item banks were written and completed for three Consumer Home Economics courses; they are Exploring Life Skills, Foods and Nutrition, and Independent Living. The Exploring Life Skills blueprint and test bank were revised. Currently all courses have blueprints and test item banks. Schools incorporated the Vocational Competency Achievement Tracking System (VoCATS) for instructional management.

Six new resource guides were developed by grants included integration of communication skills and integration of academics in five Consumer Home Economics courses. The five courses were Exploring Life Skills, Food Science, Foods and Nutrition, Parenting and Child Development, and Teen Living. All resources incorporated extensive networking of teachers, teacher educators, and community leaders to

achieve the final products. One new North Carolina FHA/HERO resource, Regional Competitive Events Management Guide, was completed.

The State Home Economics Education staff made ten on-site visits to LEAs and made two presentations to university programs. Staff participated in regional FHA/HERO leadership workshops for 3,818 participants and competitive events for 2,657 participants. State staff also participated in one DLS broadcast on apprenticeships.

Inservice activities were held statewide to support new teachers, SCANS instruction, and GRADS. On the regional and local levels, grants assisted at-risk students, and focused on use of technology, family wellness and nutrition, and teen parenting.

Exemplary Programs Developed

The six exemplary programs previously noted as described in Appendix 6 are as follows:

Area	County	Title
Non-depressed	Catawba	Food Science on the Information Highway
Depressed	Martin	SCANS: Content, Curricula, Context – Phase II
Non-depressed	Randolph	Recruiting, Retaining, and Recognizing Home Economics Teachers in North Carolina
Depressed	Robeson	Consumer Home Economics 2000 – Phase II
Non-depressed	Wake	Establishing Model Consumer Home Economics Programs that Use Classroom Manager and Academically Integrated Curricula
Depressed	Warren	BASICS in Home Economics – Part 3

Tech Prep

Secondary and Post-secondary 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.

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.

Exemplary Programs

The 1994–96 Tech Prep project interim 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. Exemplary programs are noted throughout this section and selection criteria used coincide with the category.

Impact of Services

Review Process Methodology

Local Tech Prep consortia representatives were notified in advance of project review meetings scheduled during the last three weeks of June, 1995. 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 the 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 Department of Community Colleges 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 and a 15-minute question and answer period from the audience. 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 can be secured from the state office.

Analysis

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

Review Results

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. Duplin County, James Sprunt Community College and Asheville-Buncombe Community College and Asheville City, Buncombe County, Madison County Consortia are most notable.

Benefits

Benefits

Collaboration

Most consortia have successfully developed a tripartite 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. These relationships have resulted in greater community awareness of Tech Prep and more effective marketing. Some consortia have actively involved employers in curriculum improvement activities, but this crucial activity is in need of expansion. Wake Community College, Wake County Schools and Nash-Rocky Mount Schools and Nash Community College have developed noteworthy collaborative models.

Curriculum Integration

Two approaches to curriculum integration are often employed by the 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 involved both the secondary schools and community colleges. The second approach to curriculum integration is the adoption of courses with applied approaches to mathematics, science, and communications skills. Many consortia have made these courses widely available. Fayetteville Technical Community College, Cumberland County Schools Consortium has set up a model for all community colleges to follow. Several community colleges have consolidated their in-service efforts using a model that was developed in Florida by Indian River Community College.

Curriculum Improvement

High schools most often made curriculum improvements by adding applied academic courses and equipping appropriate laboratories. Community college curriculum improvements centered on adding new curriculums, deleting or upgrading outdated curriculums, or upgrading equipment.

Guidance Services

The most common improvement in the area of guidance services is implementation of 4-year Career Development Plans for high school students. In the best cases, these 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

Preparatory Services

college. Jackson County Schools and Southwestern Community College have installed an innovative telecommunications backbone system to deliver these types of services.

Staff Development

Much professional development activity 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. 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 two, three-day college/business internship programs for approximately 55 high school and community college guidance counselors.

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. Many do not have 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. However, 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.

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 drop-out rates. Often missing are indicators from standardized assessment instruments and changes in the percentage of students needing remediation at the colleges. Significant progress has been made in this area this year. Charlotte-Mecklenburg, Central Piedmont Community College, Cumberland County Schools, Fayetteville Community College and Carteret Community College, Carteret County Schools have models for others to follow.

Integrating Applied Academics into Vocational/Technical Education Programs

Activities

Efforts to promote curriculum integration of academic and vocational/technical education have focused on extensive staff development for academic and vocational/technical education teachers, as well as including integration activities in the development of curriculum guides. Information on numbers of students served is found in Appendix 1.

Many statewide workshops for vocational and technical teachers and administrators have focused on integrating academics. They included the following:

Activity	Participants
Reading for Learning	300
VoCATS Implementation	1,485
Tech Prep Conference	800
School-to-Work Workshops	100
Family & Consumer Sciences – Strategies for Academic Integration– Five supplemental guides developed and one workshop conducted	80 600 guides distributed
Using TQM for Attaining Performance Standards	120
Distance Learning by Satellite	2,672
Five broadcasts (Business Education, Health Occupations Education, Technology Education)	
Academic and VTE – Improving Test Scores Workshop	50
Internet Training	240

Through the Southern Regional Education Board pilot 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).

Services to Special Populations

Providing assistance to Special Populations Integration sessions for all vocational/technical education teachers and special populations coordinators were sponsored at the 1995 Summer Workshop. These sessions were presented to approximately 2,572 program area participants and 100 special populations coordinators. Overviews of enhancing students' learning and performance through integrated curriculum, diverse methodology, and a variety of assessment measures were discussed.

Participants were afforded opportunities to examine 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 the INTERNET.

LEAs have reported numerous positive results from integration efforts. The impact on programs, teachers, and students included: improved student attendance and retention; lower drop-out rate; curriculum enhancement/improvement; broader visions among teachers of all disciplines; increased achievement for members of special populations; hands-on approach to learning; combining theory and practice to aid in the transition from school to work; and creation of school environments that encourages students to succeed.

Impact

Career Guidance and Counseling

In 1994-1995, five statewide in-service activities were held for approximately 325 industry-education coordinators (IECs), both new and experienced. Individual programs of work were developed. Priorities of vocational and technical education were provided as a guide for program emphasis. IECs advised, counseled, and provided support services for students in the areas of program planning, career guidance and counseling, job placement, and postsecondary education.

Programs

A five-day session of the annual Vocational & Technical Education Summer Workshop was devoted to industry-education coordination. Participants were given information on workforce preparedness, career assessment, career development plans, performance standards, career development activities, regular classroom instruction, and techniques of apprenticeship.

Descriptions of Program/Services

Industry-education coordinators collaborated with School Counselors to coordinate the development of four year/six year personalized education plans for all students. The process included high school orientation, interest surveys, aptitude tests, career planning activities, and counseling. The plans listed by grade the courses needed by students to prepare them for expressed career majors. Students' progress was monitored and revisions made to the plans as needed.

Activities and Services

Some school systems provide an internship/shadowing program for students to experience a job setting and acquire information relative to career interests and educational plans.

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

Career Days and Job Opportunities Conventions 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 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 become 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 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 worked cooperatively with the State Occupational Information Coordinating Committee (SOICC), and the School Counseling Division to facilitate the use of occupational information materials, assessment instruments, and the promotion of career development activities. This included the development of 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 our state career development consultant.

Appendices

Appendix 1	Enrollment Table
Appendix 2	Performance Standards
Appendix 2A	Performance Standards Statewide Summary
Appendix 3	Exemplary Program for Disabled Students
Appendix 4	Exemplary Program for LEP Students
Appendix 5	Exemplary program for Disadvantaged Youth
Appendix 6	Exemplary Programs for Consumer Home Economics

SECONDARY ENROLLMENT; PERIOD COVERS July 1994 - June 1995

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

UNDUPLICATED			UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)									
OCC PROGRAM AREA	TOT ENR	TOTAL		REG VO-TE-ED	DIS- ADV	LEP	DIS- ABLED	CORR	SP/DH /SPW	SEX EQ (NON- TRAD)	ADULT	COM - LETER 1994
		MALE	FEM.									
AGRICULTURE	15658	13129	2529	7481	5569	34	2578			138		(1644)
MARKETING	12190	5704	6486	6543	4817	29	801			57		(2787)
CONS/ H'MAKING ED	32757	10652	22105	15123	13244	151	2935			312		(10787)
OCC HOME EC	3282	861	2421	1309	1575	20	378			44		(1759)
TRADE & INDUSTRY	29662	25456	4206	15341	10532	114	3676			22		(21796)
HEALTH	6595	1243	5352	4684	1746	24	141			41		(2193)
BUSINESS	102711	43087	59624	66582	30268	661	5200			1226		(5687)
TECHNOLOGY ED	8013	6948	1065	4548	2237	52	1176			22		(12194)
GRAND TOTAL	210868	107080	103788	119623	69988	1085	16885	1027	417*	7570*		(58847)

*number served by funded grants

SECONDARY ENROLLMENT; PERIOD COVERS July 1994 - June 1995

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

UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)										
OCC PROGRAM AREA	LINKAGE				PLACEMENT					
	TECH-PREP	CO-OP	APPR	WK-STDY	CONT ED	EMPLOYED		MIL	OTHER	CURRENT TEACHERS
						R'LTD	OTHER			
AGRICULTURE	6572	208			(912)	(449)	(293)	(56)	0	(364)
MARKETING	3578	6912			(1792)	(530)	(652)	(96)	(24)	(350)
CONS/ H'MAKING ED	9902	4			(6580)	(1435)	(1920)	(258)	(258)	(1159)
OCC HOME EC	943	445			(950)	(251)	(339)	(29)	(43)	(270)
TRADE & INDUSTRY	9204	2299			(14255)	(4067)	(4471)	(5058)	(749)	(1179)
HEALTH	1304	31			(1750)	(167)	(591)	(39)	(19)	(222)
BUSINESS	23888	701			(4237)	(609)	(1407)	(148)	(49)	(1816)
TECHNOLOGY ED	2057	0			(7548)	(1616)	(2141)	(387)	(194)	(701)
GRAND TOTAL	57484	10600	391	542	(38024)	(9124)	(11814)	(6071)	(1336)	(6061)

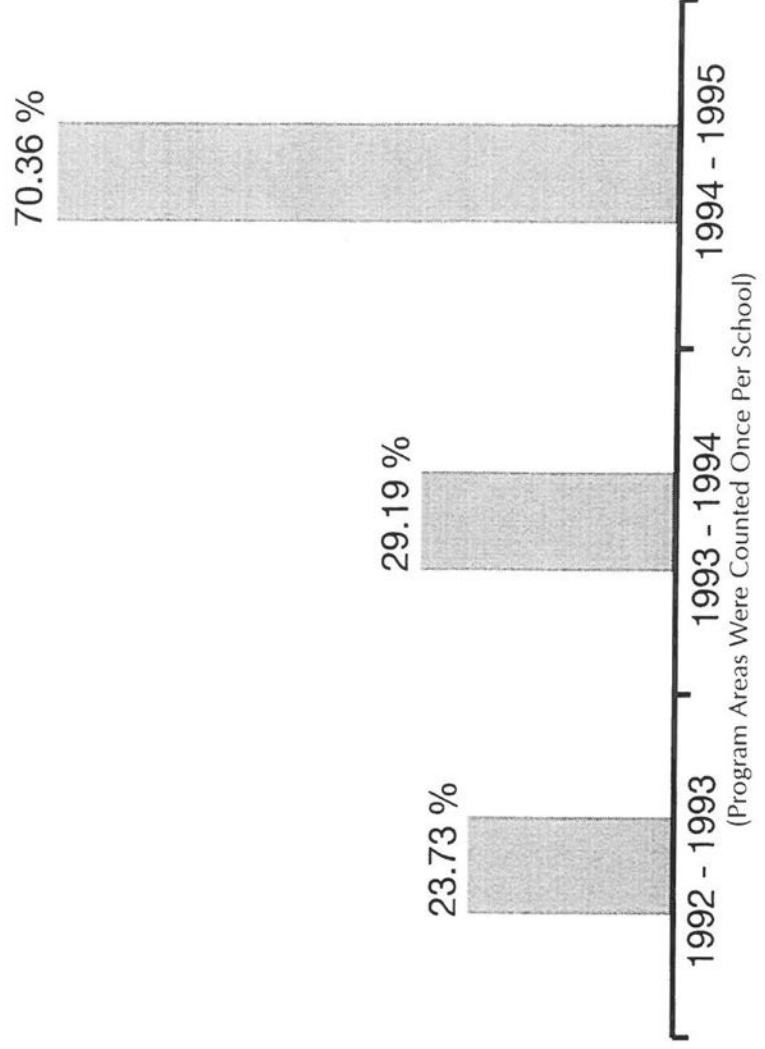
**Secondary Vocational and Technical Education
Long-Range Performance Standards
Approved on 6 January 1994 by the
NC State Board of Education**

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.

Vocational and Technical Education

Trend Data for School Years 1993-95 Statewide Summary Performance Standard One

Percent of all Program Areas Meeting Performance Standard One



Long-Range Performance Standard One:

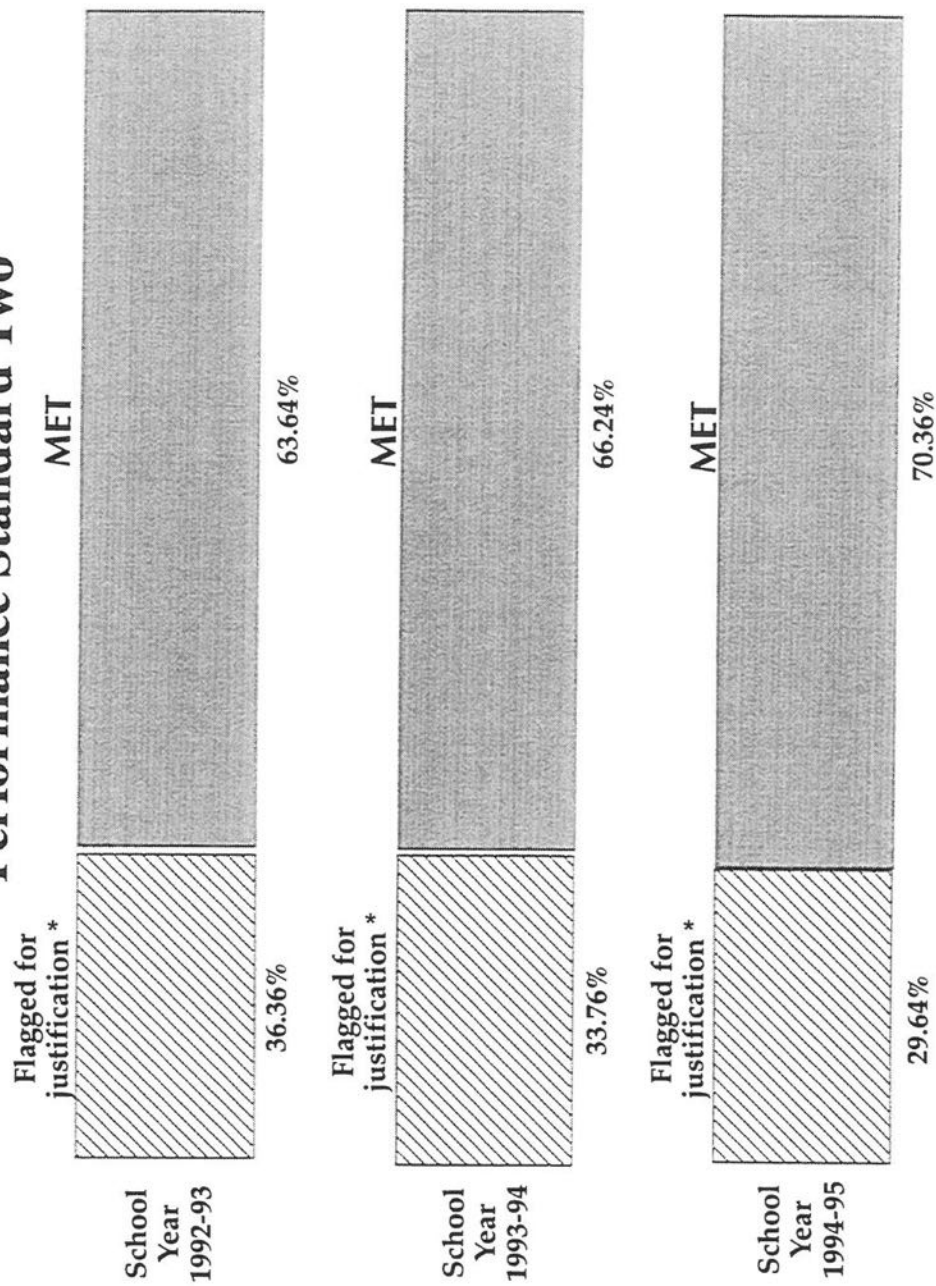
Each student will have a **Career Development Plan (CDP)** appropriate for his or her designated career goal.

Vocational and Technical 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 1993-95 Statewide Summary Performance Standard Two



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

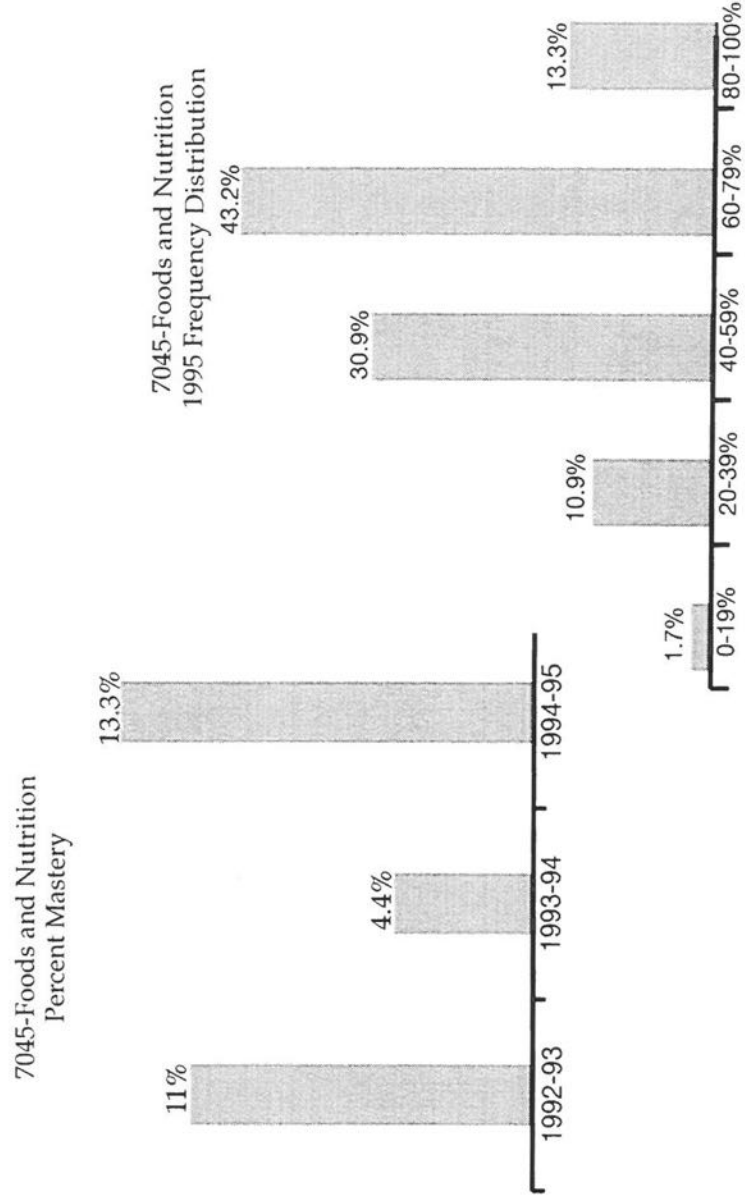
Vocational and Technical Education

Long-Range Performance

Standard Three:

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

Trend Data for School Years 1993-95 Statewide Summary Performance Standard Three Sampling of Course Data*



*These aggregated course data are representative of information for other vocational courses.

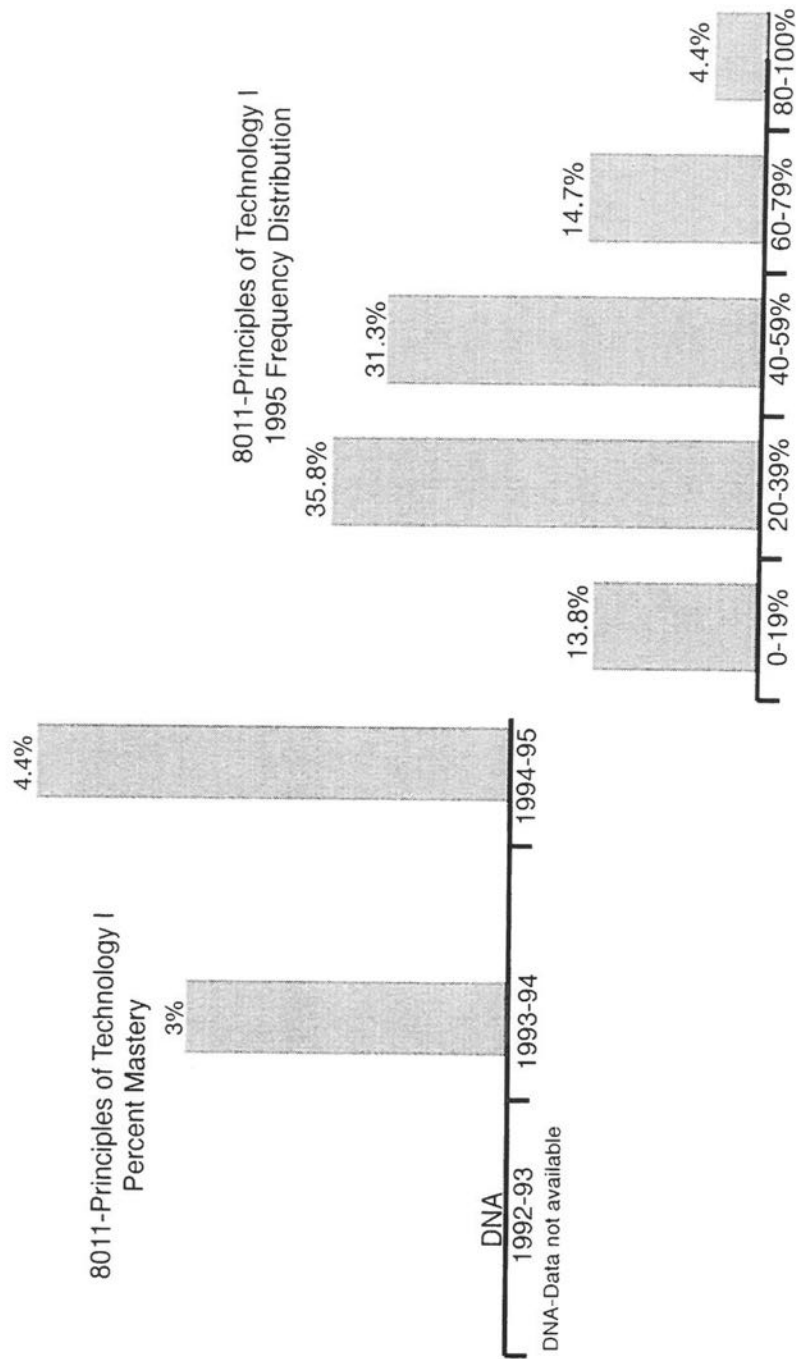
Vocational and Technical Education

Long-Range Performance

Standard Three:*

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

Trend Data for School Years 1993-95 Statewide Summary Performance Standard Three Sampling of Course Data*



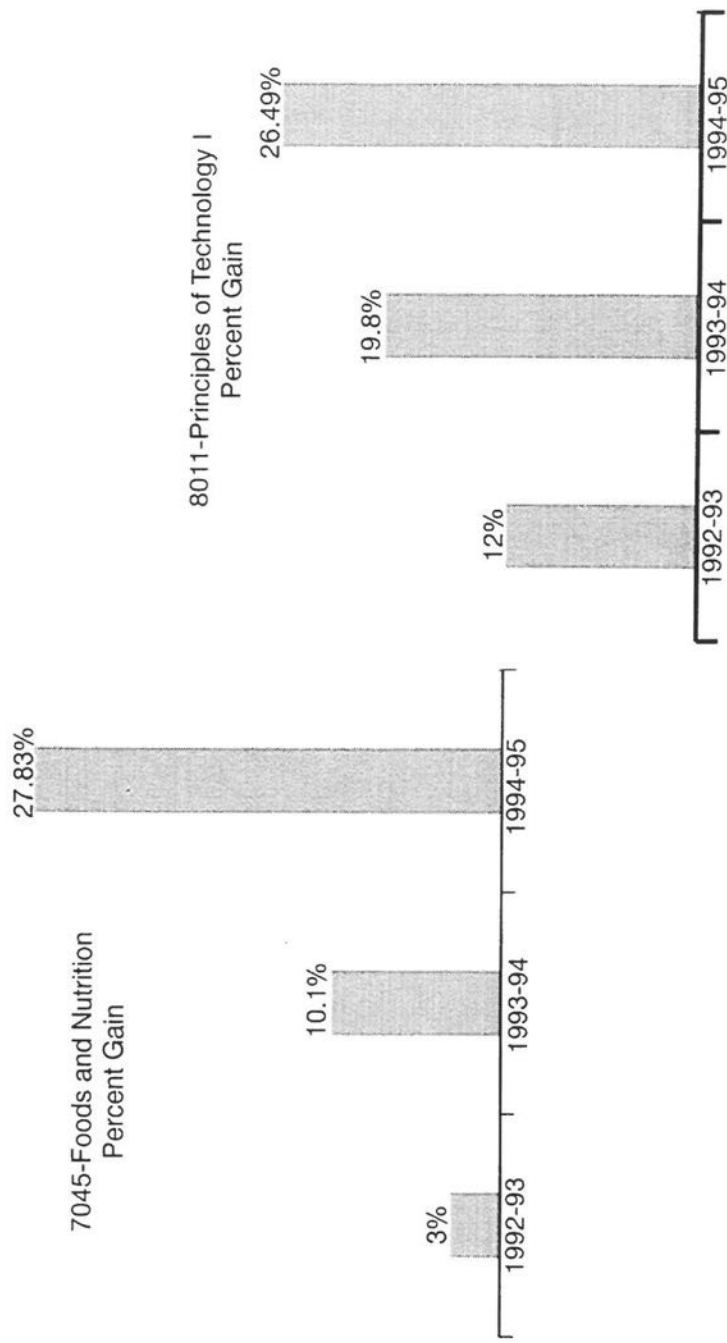
*These aggregated course data are representative of information for other vocational courses.

Vocational and Technical Education

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.

Trend Data for School Years 1993-95 Statewide Summary Performance Standard Four Sampling of Data for Student Gains*



*For Performance Standard Five and trend data regarding other vocational courses, refer to "1995 VoCATS Data".

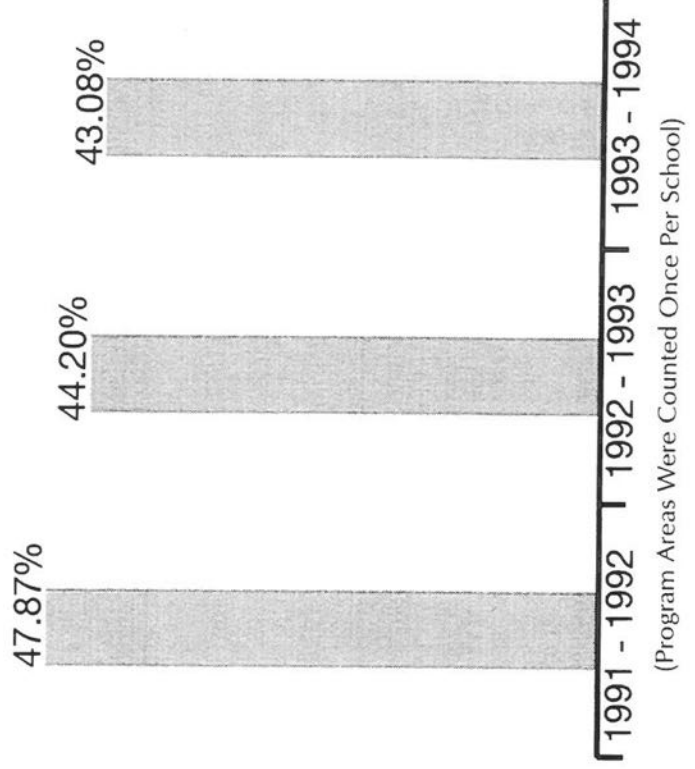
Vocational and Technical Education

Long-Range Performance
Standard Six:

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

Trend Data for
School Years 1993-95
Statewide Summary
Performance Standard Six

Percent of all Program Areas Meeting Performance Standard Six



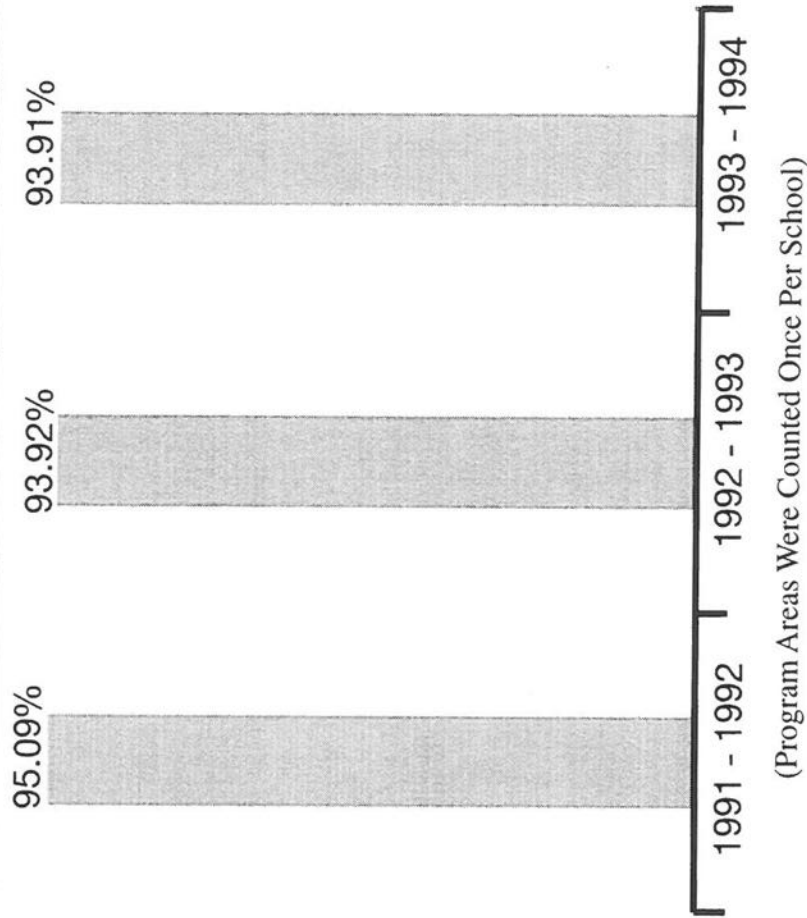
Vocational and Technical Education

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 1993-95 Statewide Summary Performance Standard Seven

Percent of all Program Areas Meeting Performance Standard Seven



Vocational and Technical Education

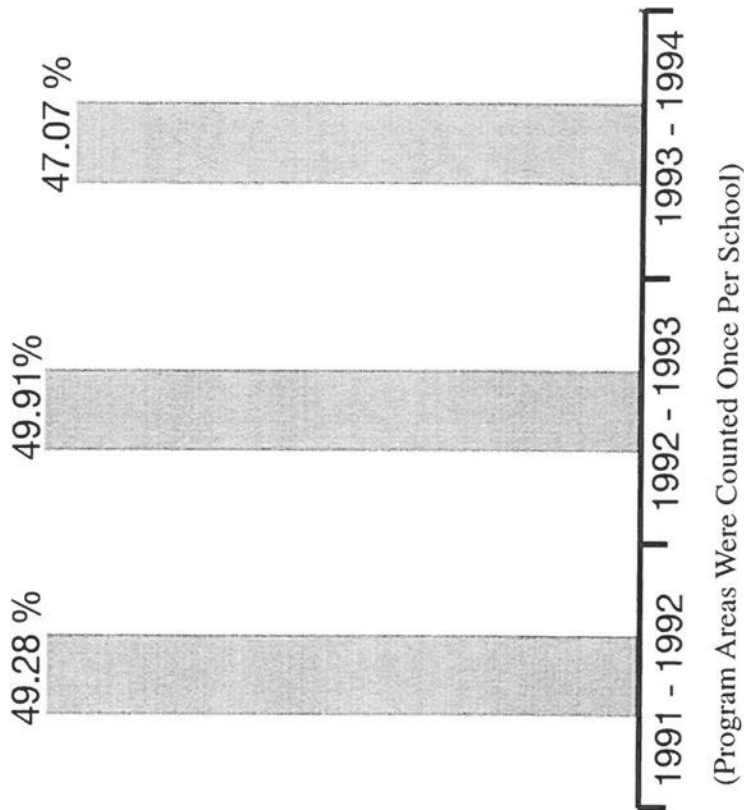
Long-Range Performance
Standard Eight:

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

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

Trend Data for School Years 1993-95 Statewide Summary Performance Standard Eight

Percent of all Program Areas Meeting Performance Standard Eight



Exemplary Program Practices for Disabled Students

From the exemplary programs for disabled students, knowing that each program had both strengths and weaknesses, it was determined that to best fit the needs of North Carolina, a survey of best practices was in order. Accordingly, this list of best practices were related to the components of the performance system. The list of exemplary program practices follows:

Career Development Planning

- Network with the school-based committee for developing the IEP and CDP consecutively.
- Give interest inventories and career exploration to determine needed courses.
- Network career planning with counselors and exceptional childrens' coordinators to prevent duplication.
- Use COPS, CAPS, COPES to identify career preference style and compare interests with vocational class offerings and identify related occupations
- Use the IEP meetings to include input from parents
- Utilize the services of vocational rehabilitation and social services
- Use learning style instruments to identify needed modifications
- Notify vocational teachers of exceptionality of students.

Gains and Mastery in Vocational and Academic Instruction

- Provide tutoring, remediation, special modifications and equipment
- Modify curriculum based upon student learning styles
- Encourage teachers to use a portfolio of items to grade rather than just "VoCATS" questions.
- Encourage teachers to use a variety of teaching styles.
- Encourage vocational teachers to find out what curriculum modifications are found on a student's IEP at the beginning of the year.
- Use lab situations and applied learning.
- Be available with intervention strategies and coordinate with VoCATS coordinators, Industry-Education Coordinators, and exceptional childrens teachers.
- Be available to help students read the VoCATS tests

Transitional Services: Further Education and Placement

- Participate in the transition team.
- Work closely with the transition coordinators.
- Update career develop plans.
- Monitor schedules for needs
- Register students for courses on their CDPs.
- Provide counseling, job-tours, community college tours, shadowing, work study, etc.

Exemplary Program Practices for LEP Students

From the exemplary programs for LEP students, knowing that each program had both strengths and weaknesses, it was determined that to best fit the needs of North Carolina, a survey of best practices was in order. Accordingly, this list of best practices were related to the components of the performance system. The list of exemplary program practices follows:

- Provide interpreters if needed
- Help them read the VoCATS tests.
- Help them answer the VoCATS tests, using the students' answers only.
- Encourage teachers to use performance assessments with their teaching.
- Work with those who provide services to migrant students and families.
- Help to see if transcripts are available from the previous school if they are migrant students.
- Help them register in courses which are more compatible with their level of English.
- Counsel with teachers about how to work with LEP students.

Exemplary Program Practices for Disadvantaged Students

A number of the practices for disabled students also apply to disadvantaged students. The list of exemplary program practices for disadvantaged students which follows is in addition to ones for disabled students which were already noted:

Career Development Planning

- Determine the type of disadvantage and how it affects success in courses. Help identify courses in which students can reach success and complete their CDP.
- Use the results of the assessment instrument to identify a career major.
- Administer interest inventories to help disadvantaged students discover what school can offer.
- Confer with other teachers to find about what vocational courses offer.
- Provide aptitude assessment for students.
- Help students identify courses that will assist in meeting their career goals.
- Develop CDP+ with realistic transition options related to secondary education, jobs and independent living
- Work with eighth graders to preplan a high school curriculum.
- Follow through with counselors in making schedule changes.
- Personally register each disadvantaged student.
- Develop a network with middle school teachers, high school teachers and special populations coordinators.

Gains and Mastery in Vocational and Academic Instruction

- Attend vocational classes periodically to make observations on students in order to make recommendations.
- Provide interim tests from item banks and work with teachers on students performance in the classroom.
- Develop a work readiness class
- Do grade reviews every 4 1/2 weeks and meet with students who are not progressing as they should.
- Add to classes work readiness skills.
- Work with teachers to understand the needs of disadvantaged students.
- Make sure students are in the courses they want/need.

Transitional Services: Further Education and Placement

- Help students understand the financial aid programs in community colleges and other institutions.
- Encourage students to stay in courses related to their career majors.
- Assist students in filling out resumes and applications for education and work.
- Work with other service providers such as JTPA, social services, etc. to help the student transition
- Coordinate activities with regular instructors, cooperative education instructors, industry education coordinators and counselors.
- Help set up career fairs.
- Develop internship programs for disadvantaged students.

Exemplary Consumer Home Economics Programs

Catawba County Food Science on the Information Highway

Description. Food Science on the NC Information Highway (NCIH) pioneered the Food Science curriculum as an interactive, telecommunications class. One teaching site and two remote class sites were linked by fiber optics to establish a model program for statewide replication. This grant provided for airtime on the NC Information Highway and for an instructor to prepare and deliver multimedia lessons appropriate for this form of instructional delivery.

Achievements and Services. Bunker Hill High School, St. Stephens High School, and Fred T. Foard High School expanded their vocational course offerings to include Food Science. Home economics instructors at each school received on-the-job training related to setting up and teaching the course. The grant provided four staff development sessions on multimedia instruction via the Information Highway.

Individuals Benefiting from Grant. Fourteen Bunker Hill High School, ten St. Stephens High School, and ten Fred T. Foard High School students benefited from the expanded course offerings and upgraded computer equipment. Two local teachers received specific training while teachers and administrators from across state were made aware of various applications of the technology.

Features. Bunker Hill High School and St. Stephens High School successfully completed a one-year, one-unit Food Science course through the use of interactive telecommunications. Fred. T. Foard High School received Food Science from St. Stephens as a 90-minute, one-semester, one-unit class during the second semester of 1994-1995. This method of instruction removed the barriers of economic status, location, and available trained staff from hindering the workforce preparation of the students involved.

Collaboration. Throughout the year, administrators, business representatives, technical specialists, teachers, parents, students, and journalists observed the project and provided feedback. The faculty and administration of the three schools directly involved worked together to schedule classes, transfer papers, and to utilize the technology.

Products. Thirty slide presentations were produced to facilitate classroom presentations of content. Grant funds also provided a laptop computer, color scanner, color printer, video mixer and character generator for multimedia instruction.

Martin County
SCANS: Content, Curricula, Context – Phase II

Description. The grant focused on facilitating integration of the SCANS competencies and All Aspects of the Industry skills into North Carolina Home Economics curricula through implementation of model demonstration sites in each educational region of the State. Through a network of support and communication, each site established their own integration plan for sharing information with home economics teachers in their respective region.

Achievements and Services. The grant major achievements and services were:

- Model demonstration sites were established at Roanoke High in Martin High, Kinston High in Lenoir County, Hoke County High, Watauga High, and Lee County Senior High. Each site developed their own SCANS integration plan based upon school and system needs.
- Roanoke High in Martin County updated technology with additional local funds to include eight student laptop computers with fax/modem capabilities, two teacher multimedia computer stations, three printers, a video camcorder, a TV/VCR, and video production equipment. The grant funds purchased five laptops computers, a videocamcorder and videocamcorder, TV/VCR, and video production equipment. Martin County Schools allocated of \$16,000 for the remaining technology purchases. A continual staff development process was implemented with emphasis on active learning, critical thinking, and technology.
- A two-day Model Demonstration Site Workshop for participating sites was held in Martin County on March 27-28, 1995 to establish a network for support and dissemination of information about SCANS integration across North Carolina.
- Eight workshops on SCANS integration throughout North Carolina and participated in the Curriculum Showcase at the American Vocational Association Meeting in Dallas, Texas in December 1994.
- A newsletter on SCANS integration was sent to all home economics teachers in the State, as well as vocational directors, and home economics teacher educators in May 1995.
- A professional reference library was established for developing a SCANS classroom.
- A very supportive advisory committee met twice during the school year and offered support and suggestions.

Individuals Benefiting from Grant. Eighteen teachers benefitted directly from participation in model site development and developed plans to disseminate that information to other teachers in their educational regions. All the students in home economics classes at Roanoke High School received benefits from updated technology and modification of

teacher strategies to develop a SCANS classroom. Approximately 750 individuals in North Carolina and other states were exposed to SCANS workshops or presentations about SCANS integration. The classroom poster and Resource Guide were benefits to approximately 600 home economics teachers attending the Summer Workshop.

Features. A major innovative feature of the project was its emphasis on process teaching and learning as opposed to content teaching and learning. Although virtually no information has been found in educational literature about how to integrate SCANS competencies into curriculum, the project director has identified major strategies for integrating SCANS competencies. These strategies included active learning, contextual learning, authentic assessment, cooperative learning, teaching with technology and developing a co-curricular FHA/HERO chapter. They were consistent with the SCANS competencies and current educational literature on educational reform. In workshops, participating teachers examined what they were currently doing in the classroom that is SCANS-oriented and were shown how to modify or extend course content to incorporate SCANS and All Aspects of the Industry skills. Networking these skills through the model sites has implications for reaching all home economics teachers and improving instruction statewide.

Collaboration. Organizations were involved with this project include:

- School Systems: Martin, Lenoir, Lee, Watauga, Hoke
- SCANS Advisory Committee
- Northeast Regional Technical Assistance Center

Products. Products resulting from the grant were:

- Establishment of five model sites in all educational regions of North Carolina except the western region.
- Classroom poster of SCANS competencies and All Aspects of the Industry skills.
- SCANS newsletter for North Carolina home economics teachers.

Randolph County

Recruiting, Retaining, and Recognizing Home Economics Teachers in North Carolina

Description. This project addressed the severe shortage of home economics teachers in North Carolina. The purpose of this grant was to recruit and retain qualified home economics teachers in North Carolina through technical assistance, leadership development, and promotional campaigns.

Achievements and Services. A statewide retreat for forty-nine first-year home economics teachers was held for four days. Sessions included general education and specific content topics, as well as time for group planning. Throughout the year, the project provided a support system for new teachers. Twenty-five on-site school visits and fifty telephone calls were made to the new teachers. A newsletter was sent to sixty identified new teachers two times during the school year. In addition, potential teachers were recruited through brochures and a display at the NC-FHA/HERO State Leadership Conference.

Individuals Benefiting from Grant. Forty-nine new teachers attended the four-day retreat. All home economics teachers in the state received two newsletters with program updates. Teacher educators summarized offerings, and a brochure with contact information and the current department title was prepared for potential teachers. Three sessions on the project outcomes and related research were presented at state and national conferences.

Features. The project featured statewide assistance through a variety of innovative means. A toll-free help line with voice mail was activated for immediate access to the project director. Two newsletters were distributed statewide with special inserts for new teachers and on teacher education programs in the state. A database provided assistance with content and technical issues. Twenty-five on-site visits were made to share resources and to interact with new teachers.

Collaboration. An advisory committee of teachers, teacher educators, and administrators guided and evaluated the work of the grant. Randolph County Schools and Meredith College worked closely to provide office and meeting space, out-of-state travel funds, further research funds, and administrative services.

Further, experienced teachers contributed their expertise and vision to the development and achievement of the project.

Products. The project produced two statewide newsletters, a database for technical assistance, a recruitment brochure, and a recruitment display.

Robeson County Consumer Home Economics 2000 – Phase II

Description. The purpose of Consumer Home Economics 2000 – Phase II was to intensify efforts of the previous year to provide students with the needed skills for living and working in the 21st century. The project focused on integrated learning, a computerized and competency-based instructional management system (Classroom Manager), student recruitment, and decision making. An Assist Team was formed to provide valuable input and direction. The coordinator analyzed VEIS data, coordinated a Food Science booth at the North Carolina Tech Prep Conference, provided a unit on decision making to home economics teachers, enhanced/expanded the decision making unit based on teacher recommendations, provided student recruitment and instructional materials to Consumer Home Economics teachers, coordinated staff development on Tech Prep related topics for home economics teachers, and collaborated with the Consumer Home Economics grant coordinator from Wake County to develop modules on integrated curriculum.

Achievements and Services. Consumer Home Economics students had the opportunity to use the unit of instruction developed to illustrate consequences of unwise choices and to critique related instructional materials and resources. Food Science students from Red Springs High School were involved in a Food Science booth at the North Carolina Tech Prep Conference. A promotional video developed in 1993-94 was provided to each high school and junior high school to encourage students to enroll in Consumer Home Economics courses. Students enrolled in the 1995 Robeson County Institute of Technology were exposed to the recruitment materials in June. Consumer Home Economics students were involved in a variety of integrated curriculum activities at their high schools.

Individuals Benefiting from the Grant. According to VEIS data, the number of students enrolled in Consumer Home Economics courses has risen from approximately 1,600 in 1993-94 to 2,274 (unduplicated count) students in 1994-95. The percentage of males enrolled in Consumer Home Economics courses has risen by 2%. The percentage of disadvantaged or handicapped students has decreased from 86% to 77%. All students have benefited from the resources and information provided to their Consumer Home Economics teachers through this grant.

Features. The project has helped to further define the role of Consumer Home Economics in the Tech Prep educational environment. The Consumer Home Economics project directors of Wake County and Robeson County have collaborated to draft modules integrating selected Consumer Home Economics courses. The courses selected to integrate with mathematics, science, English, and social studies were Exploring Life Skills, Teen Living, Foods and Nutrition, Parenting and Child Development, and Food Science. These modules, were disseminated to North Carolina teachers, reflect national changes occurring in education. The modified unit of instruction illustrated the consequences of decisions on lifestyles focuses more on critical thinking skills.

Collaboration. The Statewide Strategic Development Committee was comprised of:

- Wake County School System – Consumer Home Economics Grant
- Southview High School – Cumberland County School System
- St. Stephens High School
- Hertford County High School
- Roanoke High School
- Guilford County Schools – Math Specialist

Products. The products resulting from this grant included:

- A written assessment of the use of Classroom Manager;
- Integrated Learning Modules for Food Science and Parenting and Child Development;
- An analysis of the student recruitment program; and
- A modified and enhanced unit of instruction depicting the possible consequences of unwise choices on lifestyle.

Wake County Establishing Model Consumer Home Economics Programs that Use Classroom Manager and Academically Integrated Curricula

Description. This grant focused on an academic integration study. State course objectives, in English, pre-algebra, algebra, physical science, biology, chemistry, E.L.P., and United States history were correlated to course objectives in Exploring Life Skills, Teen Living, Foods and Nutrition, Food Science, and Parenting and Child Development. Strategies to reinforce core academic courses in the above Consumer Home Economics courses were developed based on correlations determined by the study. Incorporating the use of Classroom Manager as a tool to manage student instruction and assessment was a second focus of this grant. As a result, a Draft Classroom Manager User Handbook was developed to assist teachers in the use of this software package.

Achievements and Services. Correlation of objectives among five Consumer Home Economics courses and core academics courses was completed. The correlations along with suggested activities were published and presented to teachers during the 1995 Summer Workshop. A Draft Classroom Manager User Handbook, written in user-friendly terms, was developed to assist teachers in the use of this software package. Two sites were selected as pilot sites for field testing 1994-95 developments of this grant. Wake County Schools furnished a middle and high school Consumer Home Economics classroom with a computer and printer. The high school site computer was installed with the latest version of Classroom Manager. Purchased by this grant, the software allowed the teacher access to curriculum and prescriptives developed with Curriculum Builder software.

Individuals Benefiting from Grant. Products and developments from this grant will benefit all students enrolled in Consumer Home Economics statewide, including economically depressed areas and areas with high rate of unemployment. Consumer Home Economics teachers in Wake County and Summer Workshop participants received draft copies of the five Strategies for Academic Integration resources.

Features. Wake County and Robeson County Consumer Home Economics project directors joined efforts to collaborate on the academic integration component of their respective grant. Through the collaboration, a framework for developing partnerships between Consumer Home Economics and academic classes evolved. A format was designed to present integration strategies. This design, a simple graphic organizer, has been adopted by numerous systems statewide for use with their integration efforts. Documents produced by this grant will have statewide implications. A pioneering aspect of this project has been the input of Teen Living, Foods and Nutrition, Exploring Life Skills, and Food Science into the software package, Curriculum Builder.

Collaboration. Eighty individuals, educators, and professionals from the following agencies were involved with the success of this grant:

- Agency: NC Department of Public Instruction
- Colleges/Universities: East Carolina University, Meredith College, North Carolina State University
- School Systems: Alamance, Burlington City, Catawba, Cumberland, Guilford, Harnett, Hertford, Martin, New Hanover, Pender, Pitt, Randolph, Robeson, Wake, Warren
- Academic Representatives: 4 English, 8 mathematics, 7 science, 6 social studies, 3 health, 4 curriculum specialist, 12 home economics, 2 assessment coordinators

Products. The following products were published and/or developed:

- Draft Editions of Strategies for Academic Integration in Exploring Life Skills, Teen Living, and Foods and Nutrition were developed and distributed at the 1995 Summer Workshop. Major portions of the Food Science and Parenting and Child Development Integration guides being published by Robeson County were developed and entered into the computer by Wake County's grant.
- Draft Editions of Classroom Manager Teacher Handbook were developed and published. Distribution and field-testing began in the winter of 1995.
- Input of four curriculum guides into the software package, Curriculum Builder, were completed by June, 1995. Curriculum guides put into this software were Teen Living, Foods and Nutrition, Exploring Life Skills, and Food Science.

Warren County BASICS in Home Economics – Part 3

Description. The BASICS in Home Economics Project of Warren County Schools addressed the concern for student deficiencies in basic necessary skills. The focus of Phase 3 was application of communication skills. Goals for Phase 3/Year 1 were to provide print teaching materials, workshops, an innovative departmental system for integration of communication skills, and availability of BASICS materials in other states. The project philosophy "Let's Get REAL" expressed the message that integrated learning experiences are relevant to the real world. They motivated students to be "Ready, Eager, and Able to Learn."

Achievements and Services. A departmental system for integration of basic communication skills has been implemented within the Home Economics Department of Warren County High School. Four classes representing twenty-two percent of the home economics students were targeted to receive the applications focus. Staff development sessions were held for the five Warren County Home Economics teachers. Appropriate resource materials were purchased. Original instructional materials were created throughout the year. Innovative teaching strategies were used. Co-curricular FHA/HERO activities were incorporated into each class.

Part 3 of the BASICS Guide for Integration of Communication Skills into Consumer Home Economics Curricula was published. Intensive research and creative writing efforts resulted in the completion of approximately 150 skill sheets and a detailed review of 50 innovative teaching strategies for secondary Consumer Home Economics classes. Skill sheets were organized with matrixes coding relevant applications for each activity. Applications to specific skills in communications, home economics course competencies, FHA/HERO purposes, and levels of thinking were shown.

The BASICS program of curriculum integration served as a model for other systems. The program was shared in four workshops at the Vocational Education Summer Conference, at the NC Interdisciplinary Conference, at a Tech Prep conference, in three local school systems, and at the AVA Conference. Visuals have been designed and are in use.

A system for offering BASICS guides in the 50 states has been implemented. All state agencies have been contacted. They received a sample guide and information about obtaining additional guides for reproduction in their states. The agency in Mexico has requested permission to translate for Spanish-speaking classes.

Individuals Benefiting from Grant. The departmental system for integration brought benefits to students in Consumer Home Economics classes at Warren County High. Among the 19 targeted students who had standardized academic end-of-course tests in both 1993 and 1994, 17 students showed significant increases in converted test score averages from one year to the next. Approximately 2/3 of the 59 students showed a pattern of improved performance in home economics quarter grades. Data from end-of-course tests was collected. Warren County students earned a total of 26 medals in 18 events in regional FHA/HERO competitive events as they applied their communication skills.

The BASICS Guide was distributed to and will be used by approximately 700 North Carolina teachers. Integrated activities have reached approximately 50,000 students in home economics classrooms across the state. Students are applying and improving skills in reading, writing, speaking, listening, and viewing. They have learned to use communication skills more effectively to solve problems in practical situations.

The departmental system has served as an exemplary model and has helped to advance the process of curriculum integration. It demonstrated the imperative for teaching basic skills in an applied setting. Insights as to strategies, activities, and materials have been shared with educators from all regions of the state and have improved teacher effectiveness. The success of BASICS integration initiatives paves the way for other integrations of academic and vocational concepts.

Features. Features of the BASICS 3 Project were innovative, exemplary, and had statewide and nationwide implications. The departmental system of integration represents an innovation. It offers a practical approach to integration which is feasible in any school system. The BASICS program of curriculum integration is exemplary and serves as a model for implementation at other sites. The BASICS Guide, Part 3 and BASICS workshops have helped teachers integrate communication skills into home economics instruction on state and national levels.

Collaboration. Organizations and companies involved with this project included:

- Warren County FHA/HERO Chapter, which sponsored student activities in applications;
- North Carolina Central University, which provided the services of a communication skills specialist; and
- Glen Raven Mills, whose manager served on the Project Advisory Committee.

Product. Guide: The BASICS Guide for Integration of Communication Skills into Consumer Home Economics Curricula, Part 3

Notes

North Carolina Community College System

Vocational Education Performance Report

Program Year 1994-1995

"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 758,000 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 1994-1995 enrollment in technical, vocational, general education, and college transfer programs. This report presents information on the 111,612 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.

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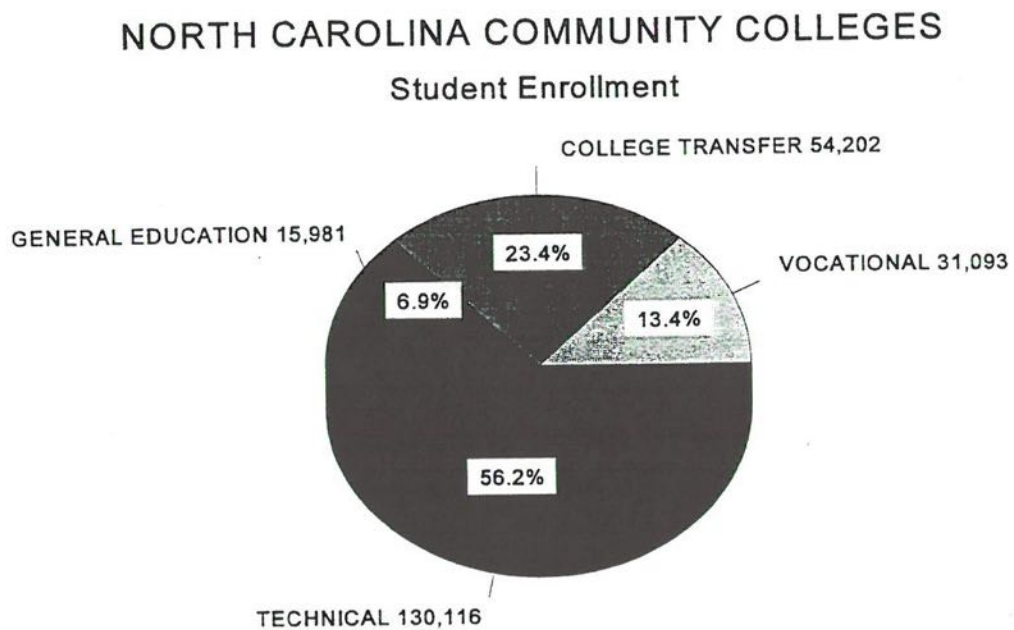


Figure 1 - Curriculum Enrollment 1994-1995 Program Year

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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 1994-1995 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 1993-1994 (the latest complete year of data), the standard for those students enrolled in 76-100% of the credit hours needed for completion was 20%; 16 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 1993-1994, 69% was the standard for remedial passing rates; 5 community colleges fell below this standard. In general education, 77% was the standard for passing rates, and 4 community colleges fell below.

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- 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 first "snapshot" taken of the 1993-1994 school year shows the largest percentage of enrollment by credit hour in the 12 credit hours or greater category at 76% and the next largest percentage in the 5 or fewer credit hours at 16%. An additional column will be added to the data in subsequent years to reflect the "stop outs" or the number of students who did not re-enroll within the three year cohort.

- 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 1993-1994, 24 schools did not meet the standard.

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 1993-1994, with the standard at 85%, 29 community colleges fell below the standard for special population completers in technical and vocational programs.

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As the System Office collects the 1994-1995 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 1994-1995 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 1994-1995. Appendix D lists all of the community colleges in the system. All member institutions are two-year postsecondary community colleges offering 281 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 1994-1995 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.

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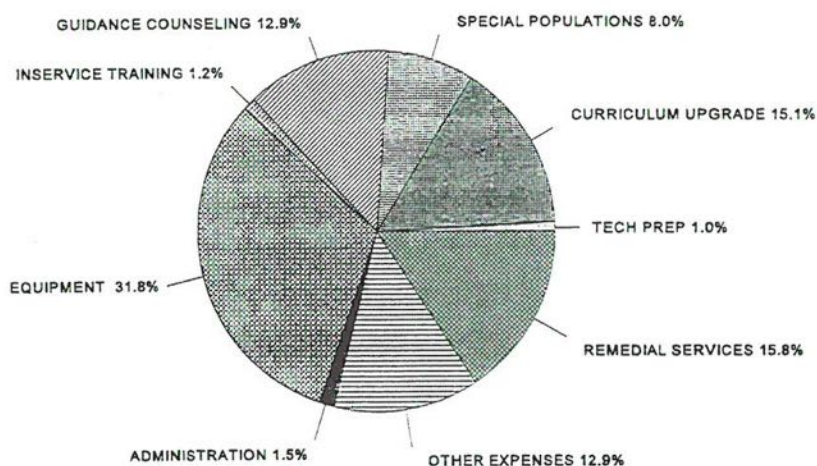


Figure 2 - Perkins Basic Allocation (Postsecondary)

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. Twenty-four community colleges used Perkins funding to upgrade their programs. Several exemplary approaches to upgrading curriculum follow.

Many of the community colleges using these funds were able to hire full- and part-time instructors to balance the increased number of students enrolling in eligible programs. These programs included medical office assisting, early childhood education, electronics engineering technology, cosmetology as well as many others. Computer operations in many business programs were upgraded with appropriate instructional software. Release time was funded for an electrical instructor at one of the colleges so that he could assist with updating equipment and facility needs at the local correctional center to help with ongoing inmate education. Another school hired a cooperative education facilitator to work with numerous curriculum programs and faculty and to assist those programs in creating work/study opportunities for the students.

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 community colleges took advantage of this area.

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A community college bought eight computers for its Testing Center to conduct computerized placement testing to identify student academic deficiencies during the admissions process. The computers are used to assess the program participant's level of self-esteem so that corrective measures may be taken to ensure students stay in school and meet their goals. Special software was purchased to help identify students-at-risk. Some other colleges used their equipment funds to buy computers and programs for their business computer programming, electronics engineering, and electronics servicing classes. One college bought computer-assisted instructional systems with appropriate software modules for the National Electrical Code, Predictive Maintenance, and fiber-optics. Another community college spent its equipment budget on calculators for business math and finance courses, on silicon graphic student workstations, on rehabilitation puppets and a six-foot earth ball for therapeutic recreation, and on safety equipment and hand power tools for a light construction program at the correctional center.

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. Twenty-two colleges offered their faculty and staff opportunities for inservice training to help meet this need.

A series called Awareness Training was provided for vocational and academic instructors at a community college. In order to maximize their students' experiences, the instructors would work to ensure a climate where the needs of individuals of diverse backgrounds are recognized, understood, and addressed. The training developed an awareness of the challenges faced by students in the program. Another college subsidized instructors returning to industry to requalify their teaching strategies in terms of the workplace. One community college used software training classes to bring faculty in business programs and faculty in machining, with CAD/CAM, into the use of the latest technological tools. Another institution was able to pay for the cost of tuition and books for an accounting faculty member to complete courses to meet SACS criteria.

Guidance Counseling. Funds used for guidance counseling were incorporated into twenty-eight community college budgets. A community college in the system used its funds to hire a counselor, two support positions, and have materials for assessment and testing. One college paid for psychological testing and consulting fees for students with learning disabilities as well as for a part-time counselor and computerized placement tests. A similar situation occurred in a college that prorated a share of counselor salaries for activities designed to increase student success in and completion of eligible

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vocational/technical education programs. These activities included career guidance and placement services, assistance with college problems, either instructional or personal, recruitment and referral to other agencies. Guidance and counseling funds were utilized in another community college to prorate the salaries of a learning disabilities counselor to provide special counseling and faculty consultation to learning disabled students in eligible programs. At the same school, a guided studies evening advisor was paid to provide career exploration and academic advising for developmental studies students; a portion of the salary for an international student services advisor/counselor was provided to give admission and counseling services for foreign students and developmental studies in eligible programs.

Remedial Services. Twenty-nine community colleges used Perkins funds to provide remedial services to students in eligible technical and vocational programs. One community college assisted 400 students in remedial English, math, and reading courses. Another college prorated the salaries for instructors in developmental studies courses and an individual to act as coordinator of developmental programs. Faculty members were assigned to take special "high-risk" student orientation programs and courses. One college used its funds to continue the support of a Computer and Tutoring Center (CTC) that provides support for remedial classes in reading, writing, and mathematics as well as tutoring in these areas and in computer-assisted learning.

Tech Prep. Seven community colleges used Title II funds for Tech Prep activities. At one school, a faculty member was released to work half-time to facilitate and coordinate Tech Prep activities. Another community college developed a high school database to track Tech Prep students, and it also included staff development opportunities for the faculty and staff. Some of the Tech Prep funding at another school went to a coordinator of Cooperative Education/Job Placement to develop curriculum articulation agreements for programs and to recruit students for these programs. A further description of systemwide Tech Prep activities may be found in this report under Section X.

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. One community college used an academic support center process to include the use of computerized assessments of students in reading to determine specific academic deficiencies relative to reading comprehension and vocabulary skills. Moreover, computerized assessments assisted in measuring student progress in accordance with prescriptions derived from initial assessments. Another

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community college used supplemental services money to fund TRIO, tutoring for special populations in eligible vocational/technical programs. This school acquired software and the site license to upgrade AutoCAD for use in the Architectural Technology Program, to enhance and upgrade programs in the Business division, and to upgrade classroom instruction in the programs in the Health Science division.

Special Populations Coordinator. Twenty-three 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. One community college established a comprehensive program including personal skills mapping. Using computerized software, this college was able to predict a student's success rate. Intervention and prescriptive strategies will then be used to facilitate student success and/or dropout prevention. Another college used these funds to pay for an English-as-a-Second-Language and Learning Disabilities Coordinator. This person coordinated tutoring for ESL curriculum students and learning disabled students who needed assistance in their preparation for admission into a curriculum.

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 1994-1995.

Administrative. Perkins funds was used by nineteen community colleges for administrative purposes. These services were provided on a prorated basis by existing college personnel. Less than 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.

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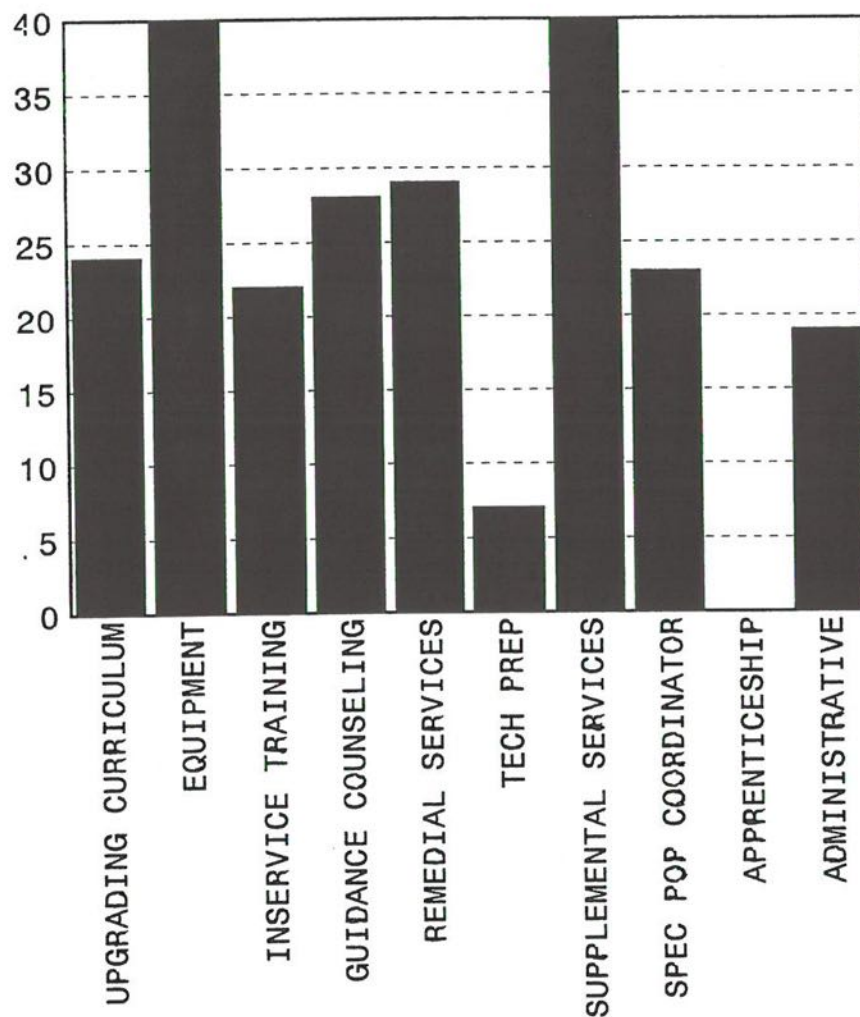


Figure 3 - Number of Community Colleges
Expending Perkins Funds in Each Category (54
of 54 reporting)

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

In 1994-1995, single parents/displaced homemakers/single pregnant women numbered approximately 10,000 at the 45 community colleges that received Perkins grants especially for this target population.

Description of Services. The program used 90% of single parent funds for direct, material support of students. Services included child care, student transportation, tuition, and instructional materials required for class participation. Ten 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 they 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. Furthermore, 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 this.

In 1994-1995, the North Carolina Community College System used grant funds to serve 1,040 students with child care and 1,188 students with transportation, instructional materials, and tuition. The grant is administered by the System Office as two fiscal and programmatic components:

1) Child Care.

Forty-three colleges offered child care to the target population at a cost to the grant between \$41 and \$50 per week per child, depending on the number of quarters the college offered this help. The service helped student retention stay at 72% (as measured from fall 1994, to fall 1995). The retention rate of students receiving child care from Perkins was higher than for those receiving the same assistance from other sources (64%). 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 attested to by the fact that students, needing but unable to obtain child care at all, were far less likely to stay in school than either of the foregoing groups (retention rate 44%).

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

This support was available at 28 colleges, costing the single parent grant an average of \$73 to \$133 per quarter, again depending on whether or not the grant operated during summer quarter. Retention for these recipients was 73%. By comparison, students who received this kind of help from other sources stayed in school at a lower rate, 61%. Those who were unable to receive transportation, tuition, or fees from any source were very unlikely to stay in school: 25%.

Special Delivery Methods. Next to the financial support provided by the Single Parent grants, one-on-one counseling appears to have the greatest impact on student success. At one mountain college, for example, the coordinator first makes sure that every student has the financial resources necessary to attend college. Once students are enrolled, the entire student personnel office keeps close contact with the student to make sure all academic, personal, and financial aspects of a student's life are proceeding well.

The practice is not unique. Another Single Parent project in the mountains reports that the coordinator sees all recipients at least every two weeks, perhaps even more. The students in fact are much more likely to seek out the grant coordinator in favor of all other counselors in the student personnel office, particularly if the student receives assistance for child care. It seems that the child forms a palpable bond between student and coordinator that no other counselor can enjoy. Even if the contact is only ten minutes per session, it has its effect.

Another college uses 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 they help keep each other in school when pressures become too intense to handle alone. They pick up, in other words, where no counselor, no matter how sensitive, can respond quite so adequately as a peer.

Crisis counseling, an issue which surfaced this year, is particularly critical for single parent grant coordinators. Those single parents with severe problems are apt to come to the coordinators when they should be seeing a mental health worker, a physician, or lawyer. But, at the moment of crisis, they choose the comfort of the grant counselor, who is hardly ever trained in crisis counseling. Because of these concerns, the System Office this year provided a special training session on crisis counseling.

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Finally, the efficiency of the grants should be noted. Grant coordinators continue to link their resources with those of other helping agencies, so that they may serve large numbers of people with only a few dollars. It is not unusual for a college to help 98, 102, or even 115 students with an average cost to the grant of less than \$100 per quarter. Similarly, low average child care costs at \$50 or less per week per child reflect not the price of child care but the program's linkage to other resources.

Exemplary Programs.

One coastal community college had the prescience to choose its single parent coordinator because of her good rapport with students. This coordinator can quickly clear 20 to 45 minutes as often as necessary to get to know each of her students.

As she speaks with students and absorbs what she sees and hears, she accomplishes important things. She shares herself, anticipating the same response from students. She imparts an optimism and expects a standard of student performance, manners, and behavior in return.

She also knows how to get down to business. Retention was 100% this year, up from 69% and 73% the two previous years. Students make all As and Bs, because the grant coordinator expects them to. She pre-interviews for motivation and turns them down if she thinks they are not serious. Nor will the coordinator serve a student who has 3 children, because her policy is to help with 100% of the child care, but only when she can afford the dollars. Her strategy has inevitably led to reduced capacity--from 28 to 19 to 16 children per quarter over these last three years. This strategy to confine assistance to students who can benefit may be instructive to other grant coordinators if this program's hold on retention and performance continues.

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

During the 1994-1995 school year, 276 students were served at 11 colleges with sex equity grants designed to train men and women in the nontraditional occupations. The total cost was \$242,746, 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

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likely to stay in school than they were prior to this assistance. Furthermore, the program has made the women students, in particular, employable at a reasonable wage for the first time in their lives.

Retention rates of nontraditional students in the program average 74% from fall 1994, to fall 1995. The figure includes those who complete a curriculum at some point during the year. This is a distinct improvement over the previous year, when the retention rate was 69% for the same period. Moreover, those who went to work in a nontraditional field within six weeks after graduation were 63% of the completers, up from 59% the year before. If transfers to four-year colleges are considered, then 76% of the 1994-95 completers were successfully placed.

Historically, the women and men in nontraditional programs maintain a "B" average.

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 similar, each offers something unique. This was the first year that the 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 at one community college has launched a massive media campaign to make its 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.

The mass and variety of this college's sex equity program have made it exemplary in many other ways also. Business executives have been invited as members of the sex equity's advisory board, with the idea of building membership in the workforce for the sex equity graduates. A mentoring program is under development. Faculty awareness was enhanced by a number of workshops on equity in the classroom. Ultimately, the project personnel hope to foster "sisterships," which would involve regular meetings

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between mentor and student. The program will continue to evolve over its second year, 1995-1996, and will have an abundance of materials and ideas to share with sister institutions.

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

Three community colleges participated in programs for criminal offenders during the 1994-1995 program year. A total of 1,047 corrections inmates participated in these occupational programs (including non-1994/95 funded). (See enrollment table in Appendix B.) The following colleges and corrections facilities participated:

Table 1

1994-1995 Criminal Offender Program Participants

<u>College</u>	<u>Correctional Facility</u>
McDowell Technical Community College	McDowell Correctional Facility
Robeson Community College	Lumberton Correctional Unit
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 of the community college/correctional facility agreements was to fund vocational training in carpentry and cabinetmaking, and electrical installation and maintenance, both

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areas with a job future after prison. The stated outcomes for this project included 65% of the program enrollees completing their chosen program and each completer receiving a certificate upon completion of each individual course as well as at the end of the program. In 1994-1995, 21 inmates enrolled in electrical installation and maintenance; 4 received certificates for completing the program. In carpentry and cabinetmaking, 21 began the program, and 16 received certificates at the conclusion of the curriculum program. Carpentry inmates exceeded the expected outcome of successful course completion at 76%, but the electrical inmates did not. Each inmate assigned to the correctional facility has an individualized planned program of study. The IPP is based on an inmate's interest and needs. Inmates were selected for this project based on expressed interest and/or an assessment from the case manager. Inmates have to have a GED to participate in the vocational program. Any inmate who did not complete the program were given the opportunity to repeat the course.

The other two consortia had varying success this year in implementing the desired outcomes of their projects. One college was offering upholstery, cutting and sewing, residential carpentry, and business computer programming at its new county prison facility. Construction delays and an incomplete inmate population kept this college from using all its funding resources during this year. The other college set up upholstery, drafting and design engineering, cabinetmaking, and microcomputer systems as its prison offerings.

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 college 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.

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Disabled. During the 1994-1995 program year, 4,407 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, notetakers, 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.

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Limited English Speaking (LEP). A total of 1,914 students with limited English proficiency were served in curriculum programs during the 1994-1995 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 37,985 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

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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 1994-1995, 73,141 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

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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).

A. Curriculum Improvement Projects. During the 1994-1995 program year, a major focus of funds from Perkins for state leadership and professional development was the undertaking of seven 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 1994-1995 program year. Five projects completed their second year and concluded; Two were beginning their first year. The five concluding were:

Table 2

Curriculum Improvement Projects (Second Year)
1994-1995

<u>College</u>	<u>Curriculum Program</u>
Bladen Community College	Welding
Davidson Community College	Nursing
Haywood Community College	Mechanical Manufacturing
Pitt Community College	Biology
Sandhills Community College	Physics

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Welding

Bladen Community College

For the Welding CIP, 49 community colleges and their programs were served. There were four statewide activities that included a certified welding educator/inspector seminar, a certified welding educator/inspector testing, a welding metallurgy session at the Instructors Conference, and a two-day welding inspection workshop to upgrade welding inspectors. Anywhere from a dozen to nearly 30 community colleges attended these efforts. Professional development activities included these meetings mentioned earlier as well as recruitment strategies and a critical thinking seminar. Curriculum materials developed included standardized statewide welder qualification forms, expanded objective forms, and a curriculum guide. Equipment purchased and used in this project was comprised of three weld inspection tool kits, three plastic weld replica kits, one delta-weld 451 power source, one wire feeder, one Edwards iron worker, and four Tweco mig guns. As a consequence of its two-year project, the North Carolina Community College System, through the efforts of the Welding CIP, now has 27 certified welding educators, 14 certified welding inspectors, and 13 certified associate welding inspectors. The curriculum guide developed is designed to be the link between the welding student and the welding employee. This guide contains 101 expanded objectives and 114 welding procedure specifications. The project maintained effective leadership, reigned within the concept of project proposals, established and kept priorities that were designed to achieve the predicted outcomes as to the scope of the CIP.

Mechanical Manufacturing

Haywood Community College

Twenty-three community colleges were served by this Manufacturing, Industrial, and Mechanical Engineering Technologies CIP. In professional development activities, this project sponsored or was instrumental in statewide inservice conferences. From industry tours to meetings to full state conferences, training was emphasized. CADKEY, Industrial Robotics, ISO-9000, and Critical Thinking Skills kicked off the first full conference. The host community college held a summer conference that included hands-on training in the use of scientific calculators, multimedia software, 3-D modeling software, and basic core elements of the curriculum being defined. Curriculum instructional materials disseminated included industrial training programs used by such industries as Rockwell International and ITT. Videotapes of the conference activities, the development of the multimedia applications used in this CIP, and a final project document, summarizing the entire process and the decisions

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concerning the content of the curriculum were also produced. Equipment included HP-48 scientific calculators for project participants, SilverScreen 3-D modeling software, and ACTION multimedia development kits. Improved instructional methods, applicable to even curriculums not involved in this project, are an outcome measured at the participating community colleges. The acquisition and use of technologically advanced equipment and materials will further strengthen the content of the programs. Instructors are able to understand and utilize the technological advances and make stronger contacts with the hiring industries and the other institutions involved. This collaboration filters down dramatically to the student body and increases the worth of the instruction and the job outlook.

Biology
Pitt Community College

The Biology CIP provided faculty inservice education in the development of instructor-produced multimedia instructional materials and the use of commercially available multimedia instructional materials. Two statewide meetings and three workshops were held to provide instructors access to the new instructional technologies and materials and to provide individualized training. Additional workshops on critical thinking skills and the use of computers in the biology laboratory for data collection and model generation were provided. A World Wide Web BIO CIP page was established to provide access to some of the materials developed in this project. A core curriculum in anatomy and physiology, course models in microbiology and introductory biology was published. CD-ROM-based software was purchased and distributed to each college for use in classroom and laboratory instruction. All 58 community colleges participated. The project worked in league with the four-year colleges in North Carolina to facilitate the transfer of students and courses from these technical programs to the four-year institutions. Professional development activities included the Instructors Conference, three ToolBook workshops, a regional 2/year-4/year forum, and a statewide meeting. The *Core Curriculum for Anatomy and Physiology*, the *Model for Microbiology*, and the *Model for Introductory Biology* were also written. Since all community colleges have biology courses, the impact of this project has been felt in all related fields on the campuses, i.e., biotechnology, environmental science, agriculture, and natural resources, to name a few. Approximately 40 health curriculums and 20 agriculture and natural resources curriculums in addition to business, mechanical manufacturing, construction, electrical electronics, public service and service curriculums utilize biology courses.

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Physics

Sandhills Community College

The Physics CIP set as its goals to improve the integration of academic and applied technology education, to update instructors' expertise in technology fields, and to improve the learning environment by implementing proven strategies, including the use of educational technologies. In professional development, 39 community colleges were represented within the sponsored meetings of this CIP. Twenty-seven colleges provided participants who were actively involved in the project. (Ten community colleges do not have full-time physics faculty.) Over eighty-eight instructors attended the Physics CIP session at the 1994 instructors conference; each of the four sessions were conducted and presented by CIP participants. Five community college instructors participated in national programs for improving physics teaching. They returned from the programs as in-house experts and presented workshops or discussions at regional and other meetings. All four regional workshops, hosted by four different community colleges, received high marks from the community college and high school physics teachers attending. Workshop activities included hands-on experience with microcomputer-based laboratories, Workshop Physics, spreadsheets, design of digitized video lessons, cooperative learning techniques, constructiveness approaches, and teaching strategies. The CIP sponsored a statewide meeting on "Enhancing Introductory Physics Teaching." Twenty community college physics teachers met with teachers from state universities, colleges, and high schools to hear 14 papers, see Physics Demonstration shows, participate in an interactive classroom session, and discuss the charter of the proposed N. C. Section of American Association of Physics Teachers. As for curriculum and materials development, two working meetings were held and instructional assistants were hired to complete the development of the Physics Curriculum Guide and the Physics Learning Modules. The CIP was involved in educational research and development in the use of technology in the classroom, development of a course for Tech Prep teachers, and support of two-year college networking efforts. The CLASSTALK interactive classroom network was used throughout the year in introductory physics classes at Sandhills CC. The CIP evolved and reported on ways to use the system to increase student activity in the class and support more effective learning. In summary, the Physics CIP developed technology applications that took the form of learning modules. The ability to establish in-house experts, interact with national organizations, and help establish statewide teaching organizations was realized.

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Nursing

Davidson County Community College

The Nursing CIP had 56 community colleges involved and 81 appointed grant recipients, representing Associate Degree Nursing, Practical Nursing Education, and Nursing Education Options, participating in professional development activities and/or curriculum development activities. Fifteen Nursing CIP participants attended a one-day Tests and Evaluation Committee workshop to brainstorm ideas about the statewide testbank and to learn more about computerized testing. A Microsoft PowerPoint instruction day was held for 15 participants. *Improving Test Construction Skills*, a statewide workshop, focused on instruction and hands-on practice with multiple choice test question construction. Attending this workshop were 116 nurse-faculty members. A one-day statewide meeting entitled *Teaching and Assessing Critical Thinking* was attended by 77 nurse-faculty. This focused on instruction and opportunities for group activities related to critical thinking. A final wrap-up presentation, attended by 47 nursing faculty and program directors recapped the CIP and included an orientation to the statewide testbank, a curriculum development panel discussion, and a segment on reengineering. Two major Curriculum Development Committee meetings, three subcommittee curricula work sessions, three Curriculum Development Management Team meetings, and a Curriculum Development Management Team meeting with the education consultants from the NC Board of Nursing were held during the grant's second year. During the second and final grant year, previously identified competencies identified as essential for entry-level nurses were validated and updated by the Nursing CIP's Statewide Advisory Committee. Copies of the Associate Degree Nursing Model Curriculum and Practical Nurse Education Model Curriculum were mailed to the community colleges, members of the advisory committee, the NC Board of Nursing, and filed with the Library of Congress. Equipment purchased included a Dukane High-Density Overhead Projector used for multimedia presentations and demonstrations of the project. The Nursing CIP, including program directors and nursing instructors in the North Carolina Community College System, benefitted greatly from the grant workshops, committee meetings, continuing education opportunities focusing on computer technology, curriculum development, and critical thinking.

Two additional curriculum improvement projects were funded for 1994-1995 and reported on their first year's achievements. These were:

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Table 3

Curriculum Improvement Projects (First Year)
1994-1995

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

Computer Technologies
Craven Community College

The Business Computer Technologies CIP has included instructors from all 58 community colleges which offer courses in Business Computer Programming and/or Microcomputer Systems Technology. The major professional development activities for the first year of this grant were six one-day regional workshops and a three-day state conference co-sponsored by the new Computer Instructors Association (CIA). The regional meetings allowed instructors to meet their peers on an informal basis and participate in workshops on topics identified from their ranks. Technical training included BBS Utilization, Peer-to-Peer Networking, and Internet Access and Utilization. At the CIA/CIP State Conference, there were 16 different technical workshops, including a National Interactive Teleconference on Operating System Decisions and a demonstration of the latest beta test version of Windows 95 delivered by two Microsoft engineers. Most of the community colleges, 85 to 90%, were represented. Curriculum work was preceded by extensive research on current programs in the target areas and employer needs and expectations. The project staff took every current curriculum standard for the two programs and developed four matrices. For each curriculum, two matrices by college were developed: every required course name and required number of credit hours. This showed the similarities and differences in programs statewide. A needs assessment survey was mailed and a list of competencies needed by graduates was drawn up and approved by the CIP State Advisory Committee. The project has purchased desktop and laptop PCS and UNIX software for use in the project.

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Civil Engineering/Surveying Technologies
Wake Technical Community College

Nine community colleges are working with this CIP which includes Civil Engineering and Surveying Technologies. Faculty development and training thus far has included a two-day conference that focused upon the fundamentals of Global Positioning Systems (GPS). Instruction was also given on TDS-48GX Survey Cards, used in tandem with the HP-48GX calculator. The software operation is its use as a data collector with various electronic total stations. Two GeoExplorer GPS receivers were purchased with software packages for processing the data. This GPS program is a new technology that will be incorporated into the new Civil Engineering and Surveying Technology curriculums. The CIP Management Committee and the Advisory Steering Committee, which includes seven community colleges, are working with the project director to set up workshops for further instruction and the upgrading of teaching skills as well as to develop instructional materials, most notably a curriculum manual and instructors' guides to the new technologies.

B. Outcomes Assessment Project. Two community colleges in the North Carolina system, Pitt Community College and Coastal Carolina Community College, were instrumental in designing a method to assess students' educational outcomes. The N.C. Curriculum Outcomes Assessment Project, Community College-Competency Achievement Tracking System (CC-CATS) developed a data bank of test questions that were assigned to course and program competencies that were then used to validate learning outcomes. The competencies were defined by curriculum instructors and employers throughout the state through a Developing A Curriculum Method, or DACUM, process. The program was tested on four curriculum areas: Radiologic Technology, Medical Assisting, Microcomputer Systems Technology, and Automotive Technology. Instructors, of course, were the drivers of this process. Both community colleges leading this project relied upon the expertise of the instructors in the field who would revise the test questions and field test and evaluate the data bank. The project directors and instructors found out that, although the software used for assessing learning outcomes for all curriculum programs is the same, the application of the assessment tool varied greatly. One curriculum program quickly accepted the concept, while another program took a more research, test and development approach to the project. All instructors, administrators, and employers involved recognized the importance of documenting students' learning outcomes and the benefit of the project in developing this process/service for the system at large. Since multiple faculty participants from numerous community colleges assisted in the makeup of the testbank, many regional meetings took place over the two-year life of the project. National code requirements,

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such as The Automotive Service Excellence documentation and work done by the National Association of Radiography, added validity to two of the program areas. The work already accomplished on the secondary education side through VoCats made for preliminary access to the competencies on the postsecondary side. Cross-referencing competencies create a seamless educational process from the high school to the 2- and 4-year colleges. The publishing house of CTB-McGraw-Hill has expressed interest in developing the postsecondary software to market this process for national and international distribution. For the time being, the dispensing of the process to other community colleges in North Carolina continues and changes to the testbank continue as instructors fine-tune the program to their needs.

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

Four community colleges used Perkins funding for community-based organizations. At one community college, the Basic Skills department in conjunction with its area community action commission set up literacy classes which provided day care, transportation, and covered all costs associated with GED testing. Four of the five days each week were devoted to GED preparation, Adult High School subjects, Adult Basic Skills and related class work. One day each week was set aside for community leaders to present life skills training, job readiness, money management, and good social interaction skills development. Recruiters kept in contact with local help agencies and area high schools for qualified candidates. Transportation was provided, and counseling was provided as needed and with regular classroom visits. Through the cooperation of area agencies, concerned citizens and businesspeople, and the commitment to excellence that the instructors, counselors, recruiters, and assessment and retention specialists personified, this project served a total of 37 individuals well. Another community college used its money to aid over 20 clients in an opportunities industrialization center to provide literacy, general education, life skills, and employability training to local economically/ educationally disadvantaged individuals. Yet another college joined with its assistance centers to help learning disabled move from high school to college to work with the necessary aid to succeed. A community college teamed up with local high schools and a local business to reach out to disadvantaged students and provide a program of transition from school to the world of work by teaching life skills, attitudinal growth and motivation, planning and independent-thinking skills so that success in life is assured. Sixty students were assisted in this endeavor.

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 North Carolina Community College System and the North Carolina Department of Public Instruction provide grants to Tech Prep consortia based upon competitive proposals received from all interested local education agencies. To be eligible, the LEAs must have developed agreements with community colleges and/or other postsecondary institutions to provide a 2+2+2 year educational program consisting of two years of secondary preparatory course work (grades 9 and 10), two years of occupational/technical-specific and advanced secondary course work (grades 11 and 12), followed by two years of postsecondary course work leading to the associate degree or certificate of completion.

Tech Prep has provided the opportunity for articulated curriculums between secondary and postsecondary education in order to create a seamless transition for students. A major component has been the development of a comprehensive career counseling program to assist all students in grades 7-14 to identify aptitudes, interests, and career options, and to select the appropriate academic and/or vocational-technical course of study.

In 1994, requests for proposals covered a two-year period (1994-1996) and were only for implementation projects. Fifty-seven colleges applied as partners in a total of 74 consortium proposals. Twenty-nine projects were funded by Perkins, and an additional five were funded with Federal carry-over and state funds. This was the first year that community colleges were fiscal agents for one-third of the grant amount. The one-third/two-third split is consistent with the split of basic grant funds. The secondary section of this report contains a synopsis of these combined consortium arrangements in terms of proposal expectations and services rendered.

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 161,209 students. Each curriculum program is reviewed by

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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, 109 Part C, Section 321-323 eligible programs during the 1994-1995 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.

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APPENDIX A

Performance Measures and Standards

- Postsecondary -

MEASURE #1 - Record the percentage of the required credit hours completed for the curriculum, i.e., the number of students who have completed 25, 50, 75, or 100% of the courses needed for curriculum completion or 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 1993-1994, the standard for those students enrolled in 76-100% of the credit hours needed for completion was 20%; 16 community colleges fell below that standard. As for the columns labeled < 25%, 26% to 50%, 51% to 75%, consider these enrollment figures and percentages as information for your individual institutions to study and consider in terms of how your student body is moving toward the completion of curriculum study.

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

Remedial instruction is defined as instruction designed to remove a student's deficiencies in the basic skills at a prescribed level of proficiency. Developmental courses are any course or series of courses designed to build upon existing skills in order to prepare students for more advanced academic work.

The **STANDARD** is set at 15% below the mean percentage of the System average. For 1993-1994, 69% was the standard for remedial passing rates; 5 community colleges fell below this standard. In general education, 77% was the standard for passing rates, and 4 community colleges fell below.

MEASURE #3 - 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 first "snapshot" taken of the 1993-1994 school year shows the largest percentage of enrollment by credit hour in the 12 credit hours or greater category at 76% and the next largest percentage in the 5 or fewer credit hours at 16%. An additional column will be added in subsequent years to reflect the "stop outs" or the number of students who did not re-enroll within the three year cohort.

MEASURE #4 - 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. Discover if the special population students enrollment in technical/vocational programs differs more than a third from the overall percentage of special populations in all programs. This is in keeping with the secondary standard for special populations.

The STANDARD will be 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 will be $(A-B)-A/3$. 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 1993-1994, 24 schools did not meet the standard.

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 will be 15% below the mean percentage systemwide. For 1993-1994, with the standard at 85%, 29 community colleges fell below the standard for special populations completers in technical and vocational programs.

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APPENDIX B

Curriculum Postsecondary Enrollment

for Carl Perkins Performance Report

1994-1995

11/30/95

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
CURRICULUM POSTSECONDARY ENROLLMENT
FOR CARL PERKINS PERFORMANCE REPORT--7/1/94 TO 6/30/95
(TECHNICAL AND VOCATIONAL ONLY)

PAGE

CSPIS IS NOT COMPLETE FOR 1994-95--INTERIM REPORT

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 LETE
01.0101	AGRICULTURAL BUSINESS	24	20	4	14	9		3		1	4	
01.0104	AGRICULTURAL TECH.	4	3	1	3	1						
01.0201	FARM MACHINERY MECH	8	8		2	6		2		1		
01.0204	AGRI MACHINERY SERV TEC	21	21		20	1						
01.0301	AGRICULTURAL SCIENCE	5	5		2	2		1				
01.0302	SWINE MGMT TECHNOLOGY	129	72	57	54	70	1	6		13		
01.0303	AQUACULTURE TECHNOLOGY	14	12	2	6	8		1		1	2	
01.0304	HORTICULT. & FRUIT PROD	2	2			2	1					
01.0399	DAIRY MANAGEMENT TECH.	1	1		1							
01.0505	EQUINE TECHNOLOGY	47	7	40	17	25		9		2	7	
01.0599	TAXIDERM	82	74	8	77	3		1		2	8	
01.0601	HORTICULTURE TECH.	688	466	222	448	166	6	27	53	44		
01.0604	GREENHOUSE & GRNDS MGMT	200	131	69	56	43		92	35	6		
01.0605	LANDSCAPE GARDENING	77	64	13	42	32		4		3	13	
01.0607	RECREATIONAL GRND. MGT.	145	130	15	66	76		6		8	15	
03.0401	FOREST MANAGEMENT	238	216	22	108	124		10		4	22	
03.0404	WOOD PRODUCTS	10	9	1	4	5		1		1	1	
03.0499	SAWYER	25	25		17	5		3			10	
03.0601	FISH AND WILDLIFE MGT.	121	111	10	38	81		8		6	3	
07.0699	DESKTOP PUBLISHING (T S)	17	3	14	4	12		1		3	8	
08.0102	FASHION MERCHANDIS & MKT	115	8	107	62	47		2		17	6	
08.0503	FLORAL DES & COMM. HORT.	72	6	66	50	19		3		4		
08.0705	MARKETING & RETAILING	647	230	417	311	311	11	32	1	69		
08.1001	INSURANCE	20	8	12	18	2		1		1	19	
08.1104	TRAVEL AND TOURISM TECH	165	19	146	103	55	3	7		18	15	
08.9999	CUSTOMER SERVICE TECH	93	15	78	57	24	3	8		22		
10.0101	COMMUNICATIONS TECH.	29	16	13	18	8				6		
10.0103	PHOTOFINISHING SPEC.	17	9	8	3	14		2		3		
10.0104	RADIO/TV BROADCAST TECH	213	155	58	89	121		5		12		
11.9999	SCIENTIFIC VIS COMP GRAP	61	39	22	29	22		12		2		
12.0301	FUNERAL SERVICE ED.	292	176	116	185	106	1	3		9		
12.0403	COSMETOLOGY	3,910	198	3,712	1,389	2,304	33	101	12	1,002	198	
13.1501	TEACHER ASSOCIATE	567	26	541	178	366	6	32		154	26	
13.9999	AD FOR VOC INSTRUCTORS	17	11	6	12	5				1		
14.3001	MANUFACTURING ENG.	242	217	25	150	87	3	5		13	25	
15.0101	ARCH TECHNOLOGY	872	640	232	416	409	17	62		57		
15.0201	CIVIL ENGR TECH	605	517	88	328	260	11	31		21	88	
15.0303	ELECTRONICS ENGINEERING	3,219	2,882	337	1,632	1,472	44	148		191	337	
15.0304	LASER/ELECTRO-OPTICS TEC	55	45	10	22	33		3		1	10	
15.0399	IND ELECT/ELECTRO TECH	472	436	36	225	238	2	22		33	36	
15.0401	BIOMEDICAL EQUIPMENT	143	130	13	60	76	2	11		10	13	
15.0402	COMPUTER ENGINEERING TEC	878	708	170	480	365	14	38		39	170	
15.0403	IND MAINTENANCE TECH.	612	548	64	300	294	6	34		36	64	

CSPI IS NOT COMPLETE FOR 1994-95--INTERIM REPORT

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)	COMPL-LETR
15.0404	INSTRUMENTATION	85	78	7	37	48					7	12
15.0405	AUTOMATION/ROBOTICS	73	68	5	43	25	2	10			5	3
15.0501	A/C, HEAT, & REFRIG TEC	298	293	5	182	104	3	10		13	5	31
15.0506	ENVIRONMENTAL SCIENCE	193	116	77	67	115	1	22		19	5	21
15.0603	INDUSTRIAL ENGINEERING	183	119	64	82	88	1	10		20	2	10
15.0607	PLASTICS TECHNOLOGY	16	14	2	11	4		1		1	1	1
15.0699	CHEMICAL	162	96	66	98	60	1	3		10		27
15.0701	IND SFTY SCRTY & HLTH MG	68	40	28	53	12		1		7		4
15.0702	QUAL ASSUR TECHNI (TS)	51	40	11	37	14		1		1	11	1
15.0805	MECHANICAL ENGINEERING	1,827	1,527	300	982	779	27	88	2	84	300	140
15.1102	SURVEYING TECHNOLOGY	198	181	17	137	60	3	3		1	17	30
15.1102	GENERAL OCCUPATIONAL	399	114	285	183	200	3	14		66	23	23
20.0202	CHILD CARE WORKER	304	13	291	103	178	2	15		70	13	40
20.0203	EARLY CHILDHOOD ASSOC.	3,738	87	3,651	1,389	2,177	26	168	1	756	87	268
20.0401	FOODSERVICE MANAGEMENT	725	401	324	375	307	6	54	14	77	71	71
20.0409	FOODSERVICE SPECIALIST	523	514	9	312	97		8	140	8	9	100
22.0103	PARALEGAL TECHNOLOGY	3,071	320	2,751	1,408	1,484	18	91		578	320	309
25.0301	LIBRARY ASSISTANT	15	4	11	14	1						
31.0101	PARK & OUTDOOR REC RES	13	9	4	5	8	1	10		1	3	
31.0301	RECREATION ASSOCIATE	128	83	45	35	89				10	16	
40.0702	MARINE	167	112	55	89	78	2	4			25	
41.0101	BIOTECHNOLOGY	64	21	43	23	37				14	15	
43.0102	CORRECTIONAL SERVICES	223	71	152	121	96		7		36	8	
43.0107	CRIM JUSTICE-PROTECT SER	8,326	5,309	3,017	4,157	3,926	34	238	1	915	1,414	
43.0201	FIRE SCIENCE	617	579	38	461	132	14	8		15	38	
43.0203	FIRE PROTECTION DIPLOMA	23	23		13	9				1	56	
44.0401	PUBLIC ADMINISTRATION	70	21	49	29	40		2		10	13	
44.0701	SOCIAL SERVICE ASSOC.	944	65	879	345	552		39		220	65	
46.0101	MASONRY	424	422	2	243	99	2	15	106	84	2	108
46.0201	RESIDENTIAL CARPENTRY	504	471	33	297	140	1	21	56	19	33	71
46.0302	ELECTRICAL INSTALLATION	1,548	1,487	61	956	524	8	59	42	84	61	262
46.0401	FACILITY SERV TECHNICIAN	63	62	1	30	28		1	15		15	
46.0499	LIGHT CONSTRUCTION	593	577	16	302	201		11	90	5	16	
46.0501	PLUMBING & PIPEFITTING	314	304	10	188	91	1	9	38	5	10	91
46.9999	INDUSTRIAL CONSTR TECH	33	31	2	11	21		2		5	2	
47.0104	DIGITAL ELECTRON REPAIR	138	129	9	86	44		4	4	7	9	24
47.0105	INDUSTRIAL ELECTRONICS	82	74	8	49	29		3		4	8	
47.0199	ELECTRONIC SERVICING	709	676	33	544	147	2	24	8	15	33	59
47.0201	A/C, HEATING, & REFRIG	1,418	1,395	23	971	358	10	52	56	46	23	232
47.0302	HEAVY EQUIPMENT MECH	52	50	2	29	19		1		4	2	6
47.0303	INDUSTRIAL MAINTENANCE	961	922	39	623	302	5	37	23	35	39	115
47.0402	GUNSMITHING	102	101	1	88	6		8		2	1	
47.0404	PIANO TUNING & REPAIR	3	3		1	2						

1/30/95

NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
CURRICULUM POSTSECONDARY ENROLLMENT
FOR CARL PERKINS PERFORMANCE REPORT--7/1/94 TO 6/30/95
(TECHNICAL AND VOCATIONAL ONLY)

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CSPIS IS NOT COMPLETE FOR 1994-95--INTERIM REPORT

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
7.0408	JEWELRY PRODUCTION CRAFT	28	15	13	18	7	1	5		3		4
7.0603	AUTO BODY REPAIR	707	684	23	471	203	2	46		32	23	81
7.0604	AUTOMOTIVE TECHNOLOGY	1,986	1,870	116	1,044	835	29	98	69	109	116	231
7.0605	DIESEL VEHICLE MAINT.	218	213	5	162	49	4	2		9	5	46
7.0606	SMALL ENG & EQUIP REPAIR	227	218	9	132	61	3	9	46	3	9	71
7.0607	AVIATION MAINTENANCE	243	228	15	168	57	3	2		14	15	21
8.0102	DRAFTING-BUILDING	93	66	27	46	37	2	4	11	14	7	7
8.0105	DRAFTING-MECHANICAL	150	130	20	94	47	5	7		14	23	23
8.0199	FURNITURE DFT & PROD DEV	31	23	8	9	19	3	1		4		
8.0201	GRAPHIC ARTS--PRNT MGMT	425	227	198	249	160	5	16		27		33
8.0303	UPHOLSTERING	187	118	69	135	44	3	4		12		5
8.0503	MACHINIST	1,644	1,507	137	1,023	546	19	65	5	97	137	199
8.0507	TOOL & DIE	88	65	23	56	30	1			4		47
8.0508	WELDING	1,717	1,645	72	1,114	488	5	58	90	61	72	199
8.0701	FINE & CREATIVE WOODWKG	29	27	2	18	9	1	3		3	2	8
8.0702	FURNITURE PRODUCTION	175	174	1	127	43	2	6		1	1	9
8.0703	CABINETMAKING	33	30	3	15	17	2	2		1	3	3
8.0799	WOOD PRODUCTION CRAFTS	18	14	4	7	11	2	2		1	4	4
8.9999	CLAY PRODUCTION CRAFTS	98	24	74	79	10	2	5		11	24	18
9.0102	AVIATION MGT & C PILOT	145	121	24	114	23	3	2		4	24	11
9.0202	HEAVY EQUIP. OPERATOR	38	38		32	4	1	3		15	140	44
9.0205	TRUCK DRIVER TRAINING	908	768	140	881	11	1	3		15	1	17
9.0306	MARINE MECHANICS	63	62	1	46	8			9	2		136
9.9999	TRAFFIC AND TRANS.	25	13	12	22	2			4	97		42
0.0402	COM. ART & ADV. DES.	1,370	703	667	849	451	14	74		38		69
0.0406	PHOTOGRAPHY	239	122	117	108	116	2	22		56		8
0.0408	INTERIOR DESIGN	373	27	346	225	124	1	14		23		163
1.0205	INTERPRETER TRAINING	175	15	160	95	65	5	5		23		82
1.0601	DENTAL ASSISTING	484	3	481	227	248	1	2		5		7
1.0602	DENTAL HYGIENE	298	4	294	189	97	1	6		22		18
1.0603	DENTAL LABORATORY	35	24	11	13	19				54		62
1.0703	HOSPITAL WARD SECRETARY	81	2	79	27	47				2		1
1.0707	MED. RECORDS TECHNOLOGY	311	13	298	130	170		11		13		283
1.0799	HEALTH INFO CODER	12		12	9	3	10	38		377		61
1.0801	MEDICAL ASSISTING	1,477	13	1,464	533	891	4	13		37		55
1.0803	OCCUP. THERAPY ASST.	244	30	214	125	109	9	19		27		112
1.0805	PHARMACY TECHNOLOGY	236	60	176	89	134	2	12		46		36
1.0806	PHYSICAL THERAPIST ASST.	405	93	312	229	150	2	12		8		48
1.0808	VETERINARY MEDICAL	150	18	132	57	87	3	25		37		5
1.0904	EMERGENCY MEDICAL	523	298	225	278	224	4	2		2		159
1.0905	NUCLEAR MEDICINE TECH	47	15	32	26	18	1	2		102		155
1.0907	RADIOLOGIC TECH / RADPHY	802	181	621	419	334	5	29		87		
1.0908	RESPIRATORY CARE TECH	489	127	362	227	238		12				

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NORTH CAROLINA DEPARTMENT OF COMMUNITY COLLEGES
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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
1.0909	SURGICAL TECH.	258	24	234	85	160	1	5		46	24	87
1.0910	MEDICAL SONOGRAPHY	62	7	55	26	31		1		14	7	18
1.0999	IMAGING TECH (TEC SPEC)	95	23	72	73	21		1		2	23	39
1.1002	CYTOTECHNOLOGY	11	1	10	6	3				2	1	
1.1004	MEDICAL LABORATORY TECH	389	63	326	164	202	10	16		61	63	89
1.1099	PHLEBOTOMY	319	26	293	120	171	2	13		83	26	181
1.1501	DRUG & ALCOHOL TECH	125	21	104	43	78	1	7		28	21	13
1.1502	MENTAL HEALTH ASSOCIATE	945	117	828	214	713	6	52		234	117	67
1.1601	ASSOC. DEGREE NURSING	5,441	525	4,916	2,169	2,896	40	167		1,075	525	1,462
1.1613	PRACTICAL NURSING	1,511	93	1,418	624	789	12	31		322	93	362
1.1614	NURSING ASSISTANT	1,220	76	1,144	576	560	4	24	11	294	76	270
1.1615	HOMEMAKER/HOME HEALTH AI	129	10	119	65	54		1		29	10	90
1.1802	OPTICIANRY	55	22	33	24	26	1	6		3	11	11
1.2399	DEVELOPMENT DISABILITIES	34	1	33	4	26		3		19	1	
1.2601	THERAPEUTIC RECREATION	271	37	234	105	149	1	9		73	37	12
2.0201	BUSINESS ADMINISTRATION	10,056	3,445	6,611	4,647	4,922	88	384	76	1,322	869	647
2.0205	INDUSTRIAL MANAGEMENT	1,295	799	496	800	443	7	25		95	95	95
2.0302	ACCOUNTING	5,396	869	4,527	2,493	2,607	64	216		884	869	416
2.0402	SECRETARIAL-EXECUTIVE	3,423	41	3,382	1,051	2,224	20	147		871	41	256
2.0403	SECRETARIAL-LEGAL	431	5	426	156	262	1	17		100	5	40
2.0404	SECRETARIAL-MEDICAL	2,549	21	2,528	754	1,669	14	116		685	21	263
2.0405	COURT REPORTING	25		25	9	13				7	1	
2.0407	DATA ENTRY OPERATIONS	75	10	65	39	33				20	10	10
2.0408	GENERAL OFFICE TECH	1,417	34	1,383	368	981	9	87	18	396	34	116
2.0499	POSTAL SERVICE TECH.	52	35	17	29	21		4		4	7	
2.0701	SMALL BUS MGMT. ENTR DEV	1		1	1							
2.0803	BANKING AND FINANCE	314	65	249	172	135	2	3		38	65	27
2.0805	INSURANCE (TECHNI SPEC)	121	49	72	106	15				3	1	1
2.0902	HOTEL & RESTAURANT MGMT	349	158	191	167	167	9	18		36	22	22
2.1101	INTERNATIONAL BUSINESS	73	37	36	58	11	4			4	9	9
2.1201	MICROCOMPUTER SYSTE TECH	5,526	1,781	3,745	2,444	2,819	49	299	6	958		408
2.1202	BUSINESS COMPUTER PROG	5,141	2,011	3,130	2,320	2,563	72	239	1	790		327
2.1204	NETWORKING TECHNOLOGIES	94	64	30	59	30		7		1		
2.1205	COMPUTER OPERATIONS	394	97	297	129	234	5	1	4	92	97	20
2.1501	REAL ESTATE (TEC SPEC)	1,364	683	681	1,156	140	8	27		74		13
		110,610	46,719	63,891	53,477	51,454	922	4,407	1,047	15,170	5,380	13,716

Vocational Education Performance Report
North Carolina Community College System
1994-1995 Program Year

APPENDIX C

Special Curriculum Student Enrollment

Report for 1994-1995

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
SPECIAL CURRICULUM STUDENT ENROLLMENT REPORT
BASED ON ANNUAL ENROLLMENT FOR THE YEAR 1994-95
NOTE: ENROLLMENT COUNTS ARE DUPLICATED

PAGE

PROGRAM CCA120BB

COLLEGE	NUMBER HANDI- CAPPED	ACADEMIC DISAD- VANTAGED	ECONOMIC DISAD- VANTAGED	LIMITED ENGLISH PROFI- CIENCY	TOTAL * UNDUPLICATED DISADVANTAGED	SINGLE HOME MAKER	TOTAL UNDUPLI- CATED SINGLE PARENT OR HOMEMAKER	TOTAL NUMBER UNDUPLI- CATED SPECIAL POPLN
ALAMANCE CC	137	1,285	1,460	40	2,169	258	496	2,298
ANSON CC	18	122	120		229	12	115	318
ASHEVILLE-BUNCOMBE	357	1,647	743	114	2,293	250	700	2,629
BEAUFORT COUNTY CC	25	338	252	3	468	109	179	506
BLADEN CC	22	324	285	3	663	73	190	519
BLUE RIDGE CC	156	1,065	383	16	1,283	233	436	1,538
BRUNSWICK CC	52	536	213	5	626	137	237	694
CALDWELL CC & TI	203	1,148	767	116	1,733	140	237	1,538
CAPE FEAR CC	10	2,175	290	3	2,340	369	635	2,051
CARTERET CC	54	483	523	39	943	13	48	2,347
CATAMBA VALLEY CC	183	1,232	523	100	1,820	517	651	1,146
CENTRAL CAROLINA C	123	1,581	972	17	2,044	307	606	2,073
CENTRAL PIEDMONT C	195	4,281	1,940	167	5,775	59	336	2,128
CLEVELAND CC	40	615	521	4	922	877	1,626	6,589
COASTAL CAROLINA C	185	3,150	1,544	40	3,988	69	464	1,174
COLLEGE OF ALBEMAR	84	1,263	1,025	5	1,653	78	415	4,042
CRAVEN CC	263	2,284	1,437	47	2,597	1,042	1,288	2,134
DAVIDSON COUNTY CC	149	1,109	782	14	1,364	291	680	2,698
DURHAM TCC	163	2,434	423	82	2,721	289	471	1,510
EDGEcombe CC	55	554	1,212	5	1,447	635	906	3,164
FAYETTEVILLE TCC	255	4,564	1,869	123	4,915	56	237	1,491
FORSYTH TCC	250	1,566	372	14	1,776	360	903	5,079
GASTON COLLEGE	161	2,660	548	38	2,856	208	399	2,103
GUILFORD TCC	394	559	984	274	1,724	318	737	3,114
HALIFAX CC	99	1,233	564	3	1,392	636	1,134	2,407
HAYWOOD CC	119	566	453	14	940	181	545	1,504
ISO THERMAL CC	26	1,192	83		1,214	200	320	1,054
JAMES SPRUNT CC	89	626	799	5	1,065	43	60	1,244
JOHNSTON CC	137	1,140	648	6	1,439	62	294	1,121
LENOIR CC	107	1,313	473	5	1,515	90	203	1,530
MARTIN CC	51	584	516	1	729	132	495	1,658
MAYLAND CC	52	479	312	3	603	95	301	772
MCDOWELL TCC	68	327	379	10	575	84	166	627
MITCHELL CC	134	1,306	507	22	1,485	114	166	669
MONTGOMERY CC	28	63	82	1	127	129	286	1,591
NASH CC	90	1,017	124	7	1,082	52	73	1,159
PAMLICO CC	26	175	64	1	193	64	311	1,242
PIEDMONT CC	10	355	57		373	30	69	201
PITT CC	538	3,340	1,145	68	3,761	20	92	4,03
RANDOLPH CC	71	1,005	258	8	1,089	106	816	4,114
RICHMOND CC	21	598	461	2	900	33	123	1,125
ROANOKE-CHOMAN CC	44	769	856	2	1,059	129	120	914
*TOTAL DISADVANTAGED INCLUDES ACADEMIC, ECONOMIC, AND LIMITED ENGLISH SPEAKING								1,080

NORTH CAROLINA COMMUNITY COLLEGE SYSTEM
SPECIAL CURRICULUM STUDENT ENROLLMENT REPORT
BASED ON ANNUAL ENROLLMENT FOR THE YEAR 1994-95
NOTE: ENROLLMENT COUNTS ARE DUPLICATED

PAGE

PROGRAM CCA120BB

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	71	422	590	12	980	337	279	495	1,083
ROCKINGHAM CC	149	1,001	286	28	1,142	282	88	322	1,326
ROWAN-CABARRUS CC	136	2,028	1,025	48	2,545	536	514	906	2,846
SAMPSON CC	76	870	736	2	1,086	287	85	364	1,113
SANDHILLS CC	68	1,754	1,103	9	2,192	190	137	256	2,231
SOUTHEASTERN CC	28	1,059	676	11	1,288	206	71	236	1,338
SOUTHWESTERN CC	73	701	164	3	760	136	120	218	871
STANLY CC	132	1,030	584	26	1,367	303	222	396	1,496
SURRY CC	125	735	443	6	978	226	157	346	1,204
TRI-COUNTY CC	137	545	427	29	737	129	110	218	818
VANCE-GRANVILLE CC	128	1,022	700	9	1,504	279	149	372	1,625
WAKE TCC	957	3,603	1,416	275	4,383	430	359	729	5,071
WAYNE CC	176	2,049	1,105	7	2,433	447	325	688	2,610
WESTERN PIEDMONT C	46	1,347	365	17	1,528	233	173	351	1,631
WILKES CC	73	797	697	4	1,183	280	3	283	1,302
WILSON TCC	47	1,115	541	1	1,250	113	58	136	1,265
	7,666	73,141	37,985	1,914	93,046	17,726	11,716	25,203	102,590

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

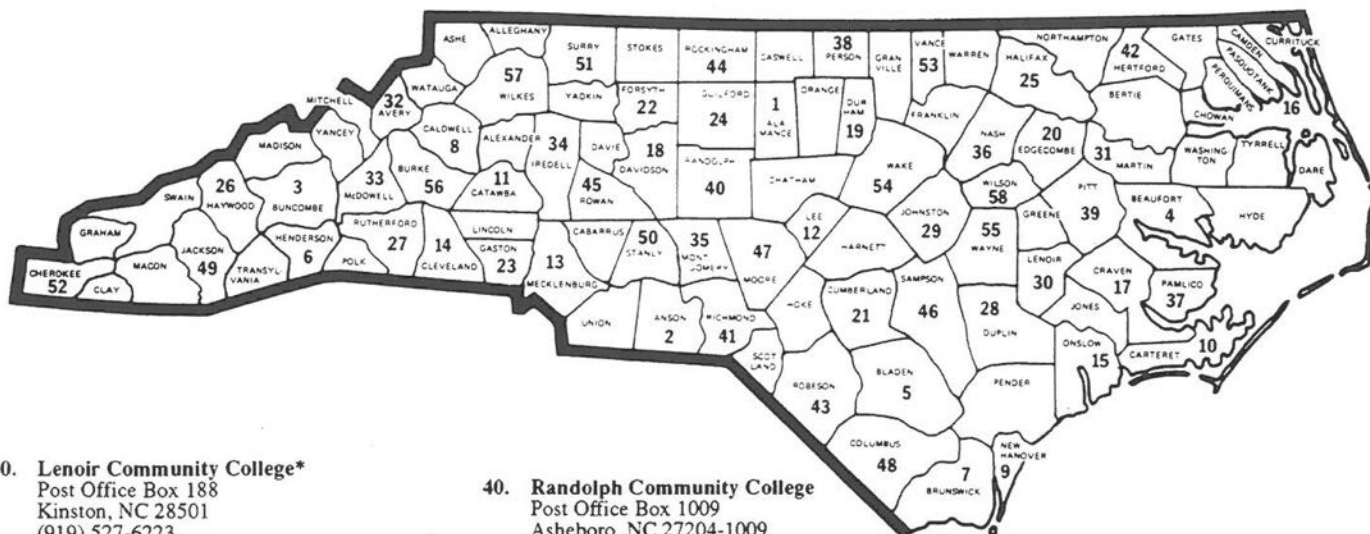
Vocational Education Performance Report
North Carolina Community College System
1994-1995 Program Year

APPENDIX D

Member Community Colleges

North Carolina Community College System

The North Carolina Community College System



- | | | |
|--|---|--|
| <p>30. Lenoir Community College*
Post Office Box 188
Kinston, NC 28501
(919) 527-6223
(919) 527-1199 Fax</p> <p>31. Martin Community College*
Kehukee Park Road
Williamston, NC 27892
(919) 792-1521
(919) 792-4425 Fax</p> <p>32. Mayland Community College
Post Office Box 547
Spruce Pine, NC 28777
(704) 765-7351
(704) 765-0728 Fax</p> <p>33. McDowell Technical Community College*
Route 1, Box 170
Marion, NC 28752
(704) 652-6021
(704) 652-1014</p> <p>34. Mitchell Community College*
West Broad Street
Statesville, NC 28677
(704) 878-3200
(704) 878-0872 Fax</p> <p>35. Montgomery Community College*
Post Office Box 787
Troy, NC 27371
(910) 576-6222
(910) 576-2176 Fax</p> <p>36. Nash Community College*
Post Office Box 7488
Rocky Mount, NC 27804-7488
(919) 443-4011
(919) 443-0828 Fax</p> <p>37. Pamlico Community College
Hwy. 306 South
Grantsboro, NC 28529
(919) 249-1851
(919) 249-2377 Fax</p> <p>38. Piedmont Community College*
Post Office Box 1197
Roxboro, NC 27573
(910) 599-1181
(910) 597-3817 Fax</p> <p>39. Pitt Community College*
Post Office Drawer 7007
Greenville, NC 27834
(919) 321-4200
(919) 321-4401 Fax</p> | <p>40. Randolph Community College
Post Office Box 1009
Asheboro, NC 27204-1009
(910) 629-1471
(910) 629-4695 Fax</p> <p>41. Richmond Community College*
Post Office Box 1189
Hamlet, NC 28345
(910) 582-7000
(910) 582-7028 Fax</p> <p>42. Roanoke-Chowan Community College
Route 2, Box 46-A
Ahoskie, NC 27910
(919) 332-5921
(919) 332-2210 Fax</p> <p>43. Robeson Community College*
Post Office Box 1420
Lumberton, NC 28359
(910) 738-7101
(910) 671-4143 Fax</p> <p>44. Rockingham Community College*
Wentworth, NC 27375
(910) 342-4261
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(704) 637-0760
(704) 637-3692 Fax</p> <p>46. Sampson Community College*
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(910) 592-8081
(910) 592-8048 Fax</p> <p>47. Sandhills Community College*
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Pinehurst, NC 28374
(910) 692-6185
(910) 692-2756 Fax</p> <p>48. Southeastern Community College*
Post Office Box 151
Whiteville, NC 28472
(910) 642-7141
(910) 642-5658 Fax</p> <p>49. Southwestern Community College*
275 Webster Road
Sylva, NC 28779
(704) 586-4091
(704) 586-3129 Fax</p> | <p>50. Stanly Community College*
Route 4, Box 55
Albemarle, NC 28001
(704) 982-0121
(704) 982-0819 Fax</p> <p>51. Surry Community College*
Box 304
Dobson, NC 27017
(910) 386-8121
(910) 386-8951 Fax</p> <p>52. Tri-County Community College*
2300 Highway 64 East
Murphy, NC 28906
(704) 837-6810
(704) 837-3266 Fax</p> <p>53. Vance-Granville Community College*
Box 917
Henderson, NC 27536
(919) 492-2061
(919) 430-0460 Fax</p> <p>54. Wake Technical Community College*
9101 Fayetteville Road
Raleigh, NC 27603
(919) 662-3400
(919) 779-3360 Fax</p> <p>55. Wayne Community College*
Caller Box 8002
Goldsboro, NC 27533-8002
(919) 735-5151
(919) 736-3204 Fax</p> <p>56. Western Piedmont Community College*
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(704) 438-6000
(704) 438-6015 Fax</p> <p>57. Wilkes Community College*
Post Office Box 120
Wilkesboro, NC 28697
(910) 667-7136
(910) 651-8749 Fax</p> <p>58. Wilson Technical Community College*
Post Office Box 4305-Woodard Station
Wilson, NC 27893
(919) 291-1195
(919) 243-7148 Fax</p> |
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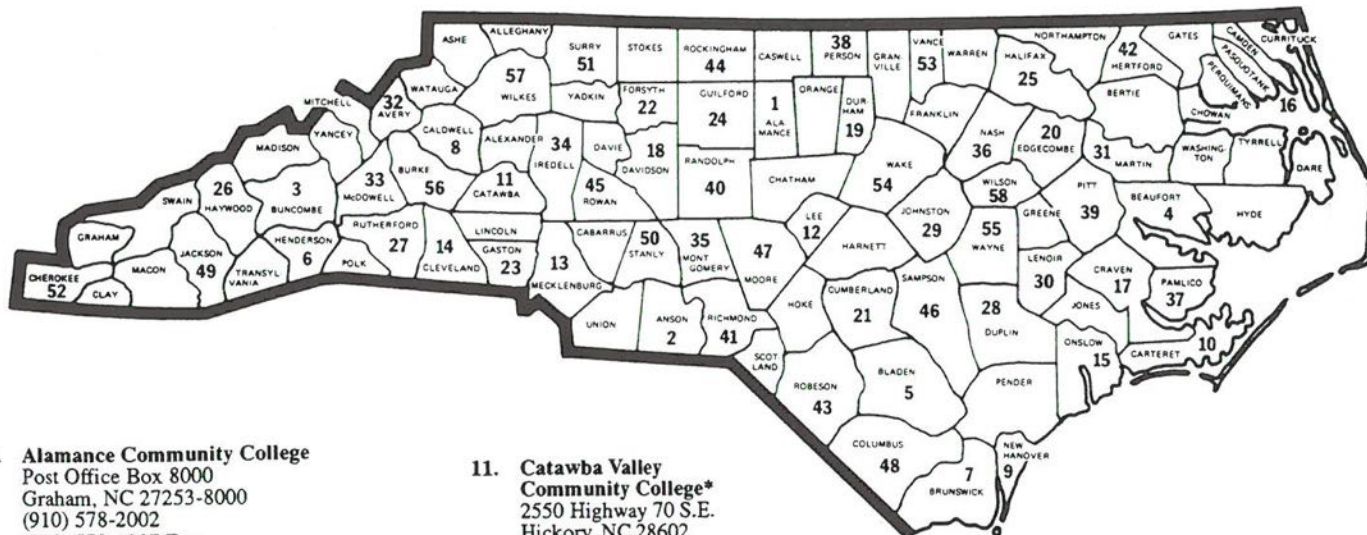
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Lloyd V. Hackley, System President
(919) 733-7051



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(704) 272-8904 Fax
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(910) 862-3484 Fax
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(704) 692-2441 Fax
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(910) 754-7805 Fax
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(704) 726-2216 Fax
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(910) 763-2279 Fax
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(919) 247-2514 Fax
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(704) 484-4036 Fax
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(910) 455-7027 Fax
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(919) 638-4232 Fax
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(704) 249-8186
(704) 249-0088 Fax
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(919) 823-6817 Fax
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(910) 484-6600 Fax
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(910) 761-2399 Fax
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