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ABSTRACT

This performance report for program year 1994 outlines the accomplishments and benefits to individuals in North Dakota as a result of programs funded by the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, PL 101-392. The report records enrollment information, projects conducted, accomplishments, and future needs for the following areas: (1) performance standards and core measures; (2) secondary, postsecondary, and adult programs; (3) single parents, displaced homemakers, and single pregnant women; (4) sex equity; (5) criminal offenders in correctional institutions; (6) special populations; (7) state leadership and professional development; (8) community-based organizations; (9) consumer and homemaking education; (10) tech prep; (11) integrating applied academics; and (12) career guidance and counseling. Five appendixes contain information on the following: vocational-technical education quality standards for North Dakota; the North Dakota tech-prep initiative; and single parent, sex equity, and exemplary programs. Resources, references, and a glossary are included. The report also contains enrollment tables for secondary and postsecondary programs for the 1993 and 1994 program years. (KC)

NORTH DAKOTA STATE BOARD FOR VOCATIONAL AND TECHNICAL EDUCATION

It is the policy of the North Dakota State Board for Vocational and Technical Education not to discriminate in its educational programs, activities, or employment policies as required by Final Regulation implementing Title IX of the 1972 Education Amendments, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973.

The Board policy does not advocate, permit, nor practice discrimination on the basis of sex, race, color, national origin, religion, age, or disability as required by various state and federal laws. Equal education opportunity is a priority of the North Dakota State Board for Vocational and Technical Education.

FORWARD

This performance report is for program year 1994 (July 1, 1993 - June 30, 1994) on the accomplishments and benefits to individuals in North Dakota as a result of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, PL. 101-392. This report reflects direct accomplishments as a result of federal funds and does not include the total state and local effort by North Dakota.

This report is submitted under the now Carl D. Perkins Act and is designed to inform individuals, report activities and to record successes in vocational and technical education. It is to provide direction for future programs and activities in the state.

This report follows a prescribed format as outlined by the United States Office of Education. Additional data has been included to fully describe the essence of each activity or program. Enrollment data has been combined into a selected set of categories. Complete enrollment data breakout are available by contacting the State Board for Vocational and Technical Education.

North Dakota State Board For Vocational and Technical Education

Dec 16, 1994
Date

Signature

Reuben T. Guenthner
State Director and Executive Officer

OMB NO. 1830-0503
EXP. 1-31-97
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SECONDARY ENROLLMENT

Period report covers: July 1, 1993 - June 30, 1994

State North Dakota

Name Ernest Breznay

Ph: (701) 328-3187

OCC PROGRAM AREA	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)								
	TOT ENR	TOTAL		REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH /SPW	SEX EQ (NON-TRAD)	ADULT	COMP-LETER
		Male	Female									
AGRICULTURE	4,218	3,325	893	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,069	(816)
MARKETING	1,487	774	713	N/A	N/A	N/A	N/A	N/A	N/A	N/A	74	(388)
TECHNICAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONS/ H'MKING ED	8,088	3,028	5,060	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,544	N/A
OCC HOME EC	447	69	378	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0-	(257)
TRADE & INDUSTRY	2,374	2,202	172	N/A	N/A	N/A	N/A	N/A	N/A	N/A	298	(685)
HEALTH	594	120	474	N/A	N/A	N/A	N/A	N/A	N/A	N/A	483	(335)
BUSINESS	7,615	3,396	4,219	N/A	N/A	N/A	N/A	N/A	N/A	N/A	970	(1,050)
TECH ED/I.A.	5,530	4,613	917	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GRAND TOTAL	30,353	17,527	12,826	N/A	(8,555)	(439)	(2,809)	(620)	(394)	(4,153)	5,438	3,531

POSTSECONDARY ENROLLMENT

Period report covers: July 1, 1993 - June 30, 1994

State North Dakota

Name Ernest Breznay

Ph: (701) 328-3187

OCC PROGRAM AREA	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)								
	TOT ENR	TOTAL		REG. VO-TE-ED	DIS-ADV	LEP	DIS-ABLED	CORR	SP/DH /SPW	SEX EQ (NON-TRAD)	ADULT	COMP-LETER
		Male	Female									
AGRICULTURE	436	374	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	361	130
MARKETING	283	158	125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	164	98
TECHNICAL	572	538	34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	231
CONSI H'MKING ED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	N/A
OCC HOME EC	47	18	29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0-	12
TRADE & INDUSTRY	1,030	936	94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,358	508
HEALTH	480	73	407	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0-	215
BUSINESS	839	150	689	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53	254
TECH ED/I.A.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GRAND TOTAL	3,687	2,247	1,440	N/A	(2,376)	((157)	(197)	(661)	(130)	(33)	1,959	1,448

SECONDARY ENROLLMENT

Period report covers: July 1, 1992 - June 30, 1993

State North Dakota

Name Ernest Breznay

Ph: (701) 328-3187

OCC PROGRAM AREA	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)									
	TOT ENR	TOTAL		LINKAGE				PLACEMENT					CURRENT TEACHERS
		MALE	FEMALE	TECH-PREP	CO-OP	APPR	WK-STDY	CONT ED	EMPLOYED		MIL	OTHER	
									R'LTD	OTHER			
AGRICULTURE	3,746	3,094	652	N/A	N/A	N/A	N/A	553	101	46	24	41	88
MARKETING	1,188	577	611	N/A	N/A	N/A	N/A	279	57	26	9	38	24
TECHNICAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONS/ H'MKING ED	8,160	2,865	5,295	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	139
OCC HOME EC	427	68	359	N/A	N/A	N/A	N/A	130	30	32	1	27	23
TRADE & INDUSTRY	2,280	1,997	283	N/A	N/A	N/A	N/A	534	77	137	43	57	72
HEALTH	484	97	387	N/A	N/A	N/A	N/A	131	9	22	2	12	15
BUSINESS	8,361	3,818	4,543	N/A	N/A	N/A	N/A	907	47	84	25	50	109
TECH ED/I.A.	5,165	4,184	981	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	125
GRAND TOTAL	29,811	16,700	13,111	N/A	N/A	N/A	N/A	2,534	321	347	104	225	595

POSTSECONDARY ENROLLMENT

Period report covers: July 1, 1992 - June 30, 1993

State North Dakota

Name Ernest Breznay

Ph: (701) 328-3187

OCC PROGRAM AREA	UNDUPLICATED ONLY			UNDUPLICATED AND DUPLICATED (PUT DUPLICATED IN PARENTHESES)									
	TOT ENR	TOTAL		LINKAGE				PLACEMENT					CURRENT TEACHERS
		MALE	FEMALE	TECH-PREP	CO-OP	APPR	WK-STDY	CONT ED	EMPLOYED		MIL	OTHER	
									R'LTD	OTHER			
AGRICULTURE	445	382	63	N/A	N/A	N/A	N/A	35	63	14	-0-	26	16
MARKETING	337	179	158	N/A	N/A	N/A	N/A	19	92	11	-0-	29	16
TECHNICAL	525	483	42	N/A	N/A	N/A	N/A	24	171	27	-0-	43	44
CONSI H'MKING ED	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OCC HOME EC	91	21	70	N/A	N/A	N/A	N/A	1	7	1	-0-	4	3
TRADE & INDUSTRY	977	888	89	N/A	N/A	N/A	N/A	70	368	42	-0-	83	72
HEALTH	472	56	416	N/A	N/A	N/A	N/A	16	111	1	-0-	42	19
BUSINESS	1,227	278	949	N/A	N/A	N/A	N/A	30	116	26	-0-	85	24
TECH ED/I.A.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GRAND TOTAL	4,074	2,287	1,787	N/A	N/A	N/A	N/A	195	928	122	-0-	312	194

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I. PERFORMANCE STANDARDS AND CORE MEASURES

DEVELOPMENT - ARTICULATION - IMPLEMENTATION

Although there was no further development of the statewide system of performance standards and core measures for secondary, postsecondary, and adult levels during PY 94 that was different from the system in place for PY 93, there was continual awareness provided relative to areas of concern or problem areas. This was for the purpose of identifying where further refinement and clarification needed to be addressed prior to the beginning of PY 95. Further development and appropriate revisions will be planned and accomplished on the basis of continued implementation and utilization of the standards and measures during PY 95.

The articulation of the statewide system of performance standard and core measures for secondary, postsecondary and adult levels was periodically reviewed and assessed. These continued efforts were made to accomplish a high level, relevant process of articulation that is streamlined and efficient.

Full implementation of all components of the statewide system of performance standards and core measures for secondary, postsecondary, and adult levels which have been developed was accomplished in PY 94. The Measure of Performance specifically addressing Learner Outcomes (Academic Gain) at the secondary level was included in the statewide system for the first time during PY 94. With this exception, the primary focus relative to the development - articulation - implementation during PY 94 emphasized refinement and clarification of that system.

COORDINATION PROCEDURES

Efforts in coordinating with other agencies (e.g. North Dakota Department of Public Instruction, North Dakota State University System, etc.) were continued, although on a limited basis. The primary contacts involved accessing certain kinds of information by both the North Dakota State Board for Vocational and Technical Education and the local schools and state institutions. That information was used in the preparation and completion of documents filed in compliance with the reporting requirements of our statewide system of performance standards and core measures.

CONTRIBUTION OF THE COMMITTEE OF PRACTITIONERS

The Performance Report for 1992 provided in detail the contribution of the Committee of Practitioners to the initial development of the statewide system of performance standards and core measures. The Committee of Practitioners continued their

involvement in these developmental efforts during both PY 93 and PY 94. Specific actions and inputs of the committee during PY 94 are detailed in the minutes of meeting held on February 17, 1994. The committee made a few recommendations consisting of minor changes and revisions in the Standards of Quality documents which were presented, discussed, and approved at that meeting. In addition to those few minor changes and revisions, the committee made the following three general recommendations:

1. A cover letter should be included with the document stating which standards apply to instructors and which apply to service programs.

2. The cover letter should also state that all individuals involved in completing the document at each school/institution should meet at one time to review the document so all people know which areas they are to assess.

3. Research and consider additional standards in Technology Education and Consumer Homemaking Education.

These three recommendations, along with the few minor modifications, were subsequently presented to the State Board for Vocational and Technical Education for their consideration and approval. This action took place at their March 1994 board meeting.

PERFORMANCE STANDARDS AND CORE MEASURES

Copies of both complete documents — Vocational-Technical Education Standards of Quality (Section 1.0 Quality of Design/Redesign -- Program Areas) 1993-94 and Vocational-Technical Education Standards of Quality (Section 2.0 Quality of Performance and Section 3.0 Quality of Conformance -- Administration) 1993-94 are attached as Appendix A. These are the performance standards and core measures that were utilized during PY 94 to assess vocational-technical education students progress. Due to the limited time the statewide system has been in place in North Dakota, it is difficult to accurately assess what impact it has had on the currently approved vocational-technical education programs. It is evident, however, that the vocational-technical education personnel have become acutely aware that it probably won't be business as usual any longer. Changes have become necessary to meet the minimum standards which have been identified as a part of the statewide ystem of performance standards and core measures.

DOCUMENTATION OF LEA'S IMPLEMENTING/MEETING THE PERFORMANCE STANDARDS AND CORE MEASURES IN THE STATEWIDE SYSTEM

One-hundred percent of the LEAs have implemented the statewide system of performance standards, based on the fact that they have filed their Vocational-Technical Education Standards of Quality with the State Board for Vocational and Technical Education. These documents are made up of three sections -- Section 1.0 Quality of Design/Redesign (Program Areas); Section 2.0 Quality of Performance (Administration); and Section 3.0 Quality of Conformance (Administration). At this time only Sections 1.0 and 2.0 have been filed with the other section -- Section 3.0 -- currently in the process of being implemented. Follow-up with the LEAs is now also in process, with the primary effort being clarification of what has been submitted and ensuring that what has been submitted is complete.

Currently there are only two measures of performance in the statewide system of performance standards which are measured on an LEA-wide basis:

1) Learner Outcomes -- Student progress in competency attainment of academic skills on occupational-technical skills shall be measured. Currently measured at the secondary level only, this measure is in the process of also being implemented for the postsecondary level during the current program year (PY 95).

    * For the secondary level 62% of the LEAs meet this standard.

2) Education/Employment Outcomes -- at least 90 percent of the total completers on the follow-up report are reported in categories other than status unknown. This measure includes both secondary and postsecondary LEAs.

    * Combined, 86% of the LEAs meet this standard.

DOCUMENTATION OF STATE ASSISTANCE TO LEA'S

The primary avenues utilized in assisting the LEA's in overcoming difficulties and implementing the statewide system of performance standards included the following kinds of activities:

1) Numerous telephone contacts with LEAs discussing specific information needed, the breakdown of how the information is to be reported, where the information could be found and accessed, clarification of why the information is needed, providing information relative to the next step(s) to be taken by the LEAs in the statewide system of performance standards, etc.

2) On-site technical assistance efforts with several LEAs as requested by them. The information provided was similar to that described in the first item.

3) Many efforts of specific technical assistance by staff members (including the coordinator of vocational education evaluations) of the State Board for Vocational and Technical Education as a part of their normal supervisory visitations with individual LEAs.

4) Letters of non-compliance will be sent out with relevant instructions identifying appropriate actions(s) to be accomplished so that they will be in compliance with the Standards. Technical assistance by State Board for Vocational and Technical Education staff will be provided as requested and appropriate.

Although the following did not directly assist the LEAs, the efforts were of importance in the development and subsequent implementation of the standards.

1) Several meetings with appropriate State Board for Vocational and Technical Education staff members in an effort to develop some additional standards as recommended by the committee of practitioners.

2) Several meetings and written communication with directors and deans of vocational and technical education in an effort to develop some additional standards as recommended by the committee of practitioners.

II. SECONDARY, POSTSECONDARY AND ADULT PROGRAMS

The following is a summary by service area of the types and levels of achievements in programs, services and activities in Title II C.

AGRICULTURE

The agriculture cluster of occupations is the largest single component of the total labor force in North Dakota. Production agriculture remains the largest component of the agriculture industry, however, the educational emphasis has shifted from production agriculture to more agribusiness and agriscience applications during the past decade. The service industry to agriculture is growing and the number involved in production is declining. Thus changes in the curriculum reflect the changing needs of the industry and students enrolled in those programs.

Agriculture programs are a part of secondary, postsecondary and adult levels of instruction offered by educational providers throughout the state. Production agriculture is the main emphasis of the adult program while the secondary and postsecondary programs place emphasis on agribusiness and agriscience applications providing a broad base background for students enrolled. Instruction is still provided in production agriculture as many of the students have Supervised Experience Programs involving learning in production.

During PY 94 eighty-one programs served the secondary level. Three of these programs were located at area vocational-technical centers and the remaining at comprehensive high schools. Twelve of the comprehensive high school programs were served by sharing six instructors on a half-day basis. One school transported students to a comprehensive high school. A number of schools now serve larger areas via Inter-Active Television courses in agriculture. The most significant achievement in the secondary program area was the completion of the curriculum project and the in-service activities to complement curriculum changes. A major workshop was held in Beulah with over 40 teachers participating. Major emphasis in the past year has been on program improvement by upgrading the curriculum guide developed in the past year. Applied math lessons were incorporated directly into the units of the ag curriculum. The secondary curriculum committee continued their work on curriculum with the assistance of the state wide curriculum project. The secondary curriculum committee placed a major emphasis on the inclusion of applied math, science and communications applications into the curriculum. As a result each unit of instruction has a section on activities for math, science, and communications in each unit of instruction.

Emphasis on agriscience and the application of science in agriculture has increased the enrollment in many programs and allowed a number of schools to expand their facilities to serve these students. Examples of exemplary programs are located at the Richland County Vocational Center, Beulah High School, Kindred High School, Watford City High School, Divide County High School, Towner High School and Stanley High School.

Postsecondary programs operated in six institutions of higher education. The program offerings included farm management, ag business management, horticulture, parks and recreation, forestry, and mechanics. Postsecondary programs are designed to meet the needs of the state, and curriculums reinforce that concept. Much work has gone into identifying and implementing appropriate course content to serve the students and the industry. The articulation agreement with the four-year ag college at NDSU has been approved and signed to better facilitate transfer for students who wish to earn an advanced degree.

Twenty-two full-time adult programs operated during the year. Five of these operated in higher education institutions, five operated in area vocational centers and the remaining in comprehensive high schools. A new program was established at Stanley High School and other schools and communities sought funding for new programs. The adult programs started their work on curriculum development with assistance from the state-wide curriculum project. The intent is to develop a common curriculum for all programs and design it in a competency/outcome based format. The work on this project will continue for a few years.

The adult farm management group entered into an agreement with the State Credit Review Board and the Cooperative Extension Service to develop and design a program to serve the needs of FmHA borrowers as mandated by new FmHA Federal regulations. This effort and the beginning of a new program at Stanley are certainly accomplishments worth noting.

Major program improvement in agriculture centered around curriculum development and the adoption of instructional materials to complement those changes. Other areas of improvement included the purchase of new equipment for the programs with emphasis on technological advancements within each program. In-service education opportunities were also a high priority for all teachers in the field and will be expanded in the future.

Vocational-Technical Education Standards of Quality developed in September of 1992 by the North Dakota State Board for Vocational and Technical Education became the standard for program improvement in agriculture education. Special emphasis was placed on Mission and Philosophy Statements, Cooperative Planning, Professional Staffing and Curriculum and Instruction. In the area of Learner Outcomes special emphasis was placed on competency attainment, especially in the applied academics.

Cooperative activities with science and math teachers promises to enhance educational opportunities for the students in the future.

HEALTH

The North Dakota Health Careers Association formed a resolution during the PY 94 All-Service Conference to apply for a curriculum development grant for developing an Advanced Health Careers course. The Advanced Health Careers course would be a second year option for students who have completed 180 hours of Health Careers. The curriculum development was completed with a finished product that has 17 independent study modules addressing allied health careers choices.

The North Dakota State Board of Nursing approved the Medication Assistant program in PY 94. The Board of Nursing has requested that the North Dakota State Board of Vocational and Technical Education be the program approval agency. The Medication Assistant program is being delivered through Bismarck State College. The mission of the program is to deliver training services statewide. The prerequisite to becoming a Medication Assistant is to be certified as a nurse assistant.

Twenty-eight part-time adult programs serving 483 students were delivered in PY 94. The majority of the courses offered were: CPR, Nurse Assistant Training, Community First Aide, and Universal Precautions.

HOME ECONOMICS (OCCUPATIONAL)

A. TYPES OF SECONDARY INSTITUTIONS CONDUCTING PROGRAMS

Secondary occupational home economics programs were offered in eight comprehensive high schools and three area vocational and technology centers. Occupational cluster areas offered were:

Child Care - 11 programs
Food Service - 6 programs
Introduction to Occupations program for Special Education students - 1 program

B. TYPES OF POSTSECONDARY/ADULT INSTITUTIONS OFFERING PROGRAMS

The Early Childhood Education program at United Tribes Technical College continued. Plans for articulation of this program with the four-year programs at the University of Mary, Minot State University, North Dakota State University, and the University of North Dakota are in process. This will expand options for students.

A new Head Start requirement that every classroom have one instructor with CDA certification, or its equivalent will, increase employment opportunities for program completers on and near the reservations. At the same time, the casinos are likely to compete with child care programs for employees who possess basic work skills. The wage difference in casino and child care occupations is likely to mean that there will still be difficulty in meeting the demand for child care workers, especially those able to assume leadership roles.

C. SUMMARIZE ACHIEVEMENTS OF PROGRAMS, SERVICES & ACTIVITIES PER SECTION 235 OF THE LAW

1. In general, needs of each student are assessed prior to placing students on community work experience. Specific work sites are selected to address the needs of the individual student.

2. Instructors report that individual adaptations are made to address special needs of students. Where reading and comprehension are the major problems instructors may allow extra time to complete a necessary reading assignment, highlight main points for the student, or arrange to have written materials taped.

3. Instructors generally report good communication with special needs personnel. Usually they participate in IEP meetings; if unable to attend, they have opportunity for verbal or written input and are informed of adaptations needed for their students.

4. The Fargo school district continued its occupational home economics course targeted to special education students and others with learning difficulties. This course focuses on workplace readiness. When instructors consider that a student is ready, he/she may transfer into the Child Care or Food Service class for specific occupational instruction. If the student is not succeeding in the regular occupational class, even with support services, the instructors determine whether a transfer back to the special class for re-teaching is in the student's best interests. This

program requires constant communication between instructors, but makes it more likely that students will be successful.

5. Students in the Occupational Child Care program and HERO chapter at SEAVTC, Oakes, once again helped to sponsor a three-county workshop for licensed day care providers. This was done in cooperation with county Social Services staff, but the students were responsible for a major portion of the planning and coordination. They also conducted demonstrations and workshops on appropriate activities for children.

   This project allows students to participate as equals with adult providers of child care, to learn and to share what they have learned.

6. All graduating students in the Early Childhood program at UTTC participated in mock interviews as a pre-graduation activity. Students had taken the general Job-Seeking and Job-Keeping Skills program, but Early Childhood instructors felt they also needed the opportunity to practice interviewing with someone from the local community. This activity was not done in any other programs at the college.

MARKETING EDUCATION

Fiscal year 94 program improvement has included utilizing federal IIB funds to replace outdated equipment and expand program equipment resources with state-of-the-art technology.

Curriculum development activities were completed in the area of International Marketing. In-service activities were conducted to disseminate information regarding the beginning development of Applied Academics advanced curriculum. Activities to distribute and inform teachers of the completed curriculum standards, the advanced Entrepreneurship course and the International Marketing curriculum guide were continued.

A continuing in-service was conducted for vocational teachers of any service area providing information to help them teach entrepreneurship at an advanced level. The key benefits of these in-service activities were:

a. The opportunity to in-service secondary, postsecondary, and adult marketing education instructors in the current trends in marketing education.

b. Materials are now available to increase the awareness of counselors and administrators regarding the importance of marketing education.

c. The opportunity to increase involvement of the business community in marketing education and highlight how marketing is changing.

d. The ability to provide education for students interested in starting their own business.

e. The availability of a curriculum and information on exploring entrepreneurship as an option in vocational education in all service areas.

f. The availability of and curriculum to teach entrepreneurship as an option in vocational and technical education.

g. To utilize existing state, local and commercially published International Marketing references in this beginning preparation for development of a curriculum guide.

Full-time adult programs in vocational and technical education were maintained at one comprehensive school district, one vocational center and three state colleges. These programs serve students in need of small business management training or retraining. There were 130 males and 73 females who participated in the program. The types of businesses the students were involved in included services, retail, construction, wholesale, and manufacturing. The program's major emphasis in this activity was to prepare the students to improve their management skills in order to better manage their businesses. A total of two-hundred thirteen (213) adults were served.

Three adult short term programs were conducted and reimbursed with state and federal funds budgeted from the vocational marketing education service area, serving 26 males and 45 females for a total of 75 students.

In addition, a cooperative activity with the Small Business Administration resulted in 10 short term adult education offerings in management for purpose of helping small business persons understand the tax regulatory requirements, thereby meeting needs of helping them advance in their vocation. One-hundred thirty (130) males and one-hundred fifty-six (156) females for a total of two-hundred eighty-six (286) adults were served in this cooperative activity with the Small Business Administration.

A total of one-hundred fifty-six (156) males and two-hundred two (202) females, equalling three-hundred fifty-eight (358) adults were served in short term adult programs in Vocational Marketing Education.

BUSINESS & OFFICE TECHNOLOGY

Secondary business and office technology programs were conducted at 64 locations with 5 programs conducted at vocational and technical centers (Valley City, Jamestown, Grafton, Oakes, and Wahpeton) and 59 comprehensive high schools. Programs were reopened at Beulah and Bowman High Schools and the Elgin High School business and office technology program was funded using state monies in 1993-94. Technical assistance was provided to a secondary business and office technology program at the State Industrial School in Mandan which is funded using state and Carl Perkins incarcerated monies. (This program is not counted in the 64 locations.) The membership of the vocational student organization at the secondary level, Future Business Leaders of America, was at an all time high in North Dakota with 1,671 members in 48 chapters.

Postsecondary business and office technology programs were conducted at 9 locations: Turtle Mountain Community College in Belcourt, Bismarck State College, United Tribes Technical College in Bismarck, NDSU-Bottineau, UND Lake Region College at Devils Lake, Fort Berthold Community College at New Town, Standing Rock Community College at Fort Yates, the State College of Science at Wahpeton and UND-Williston Center. The vocational student organization membership at the postsecondary level, Phi Beta Lambda, was 222 members in 12 chapters. Technical assistance was also provided to the North Dakota State Penitentiary business and office technology program which is funded with state and Carl Perkins incarcerated monies.

Part-time adult business and office technology classes were offered in 15 locations. Two postsecondary schools (UND-Lake Region, Devils Lake and UND-Williston), 10 comprehensive high schools (Ashley, Cooperstown, Dickinson, Driscoll, Enderlin, Fargo, Grand Forks, Kenmare, Mandan, Minot), and 3 secondary vocational and technical centers (Jamestown, Valley City and Wahpeton) offered part time classes to a total of 1,041 adults (240 males and 801 females). Long term, individualized, adult programs were conducted at Cavalier High School (10 males and 35 females) and the North Valley Vocational and Technology Center at Grafton (14 males and 69 females) serving a total of 128 adults.

Business and Office Technology instructors had the opportunity to participate in three outstanding comprehensive in-service activities in 1993-94. In addition to the SBVTE All-Service Conference and the NDEA Instructional Conference, Bismarck was the host city to the National Business Education Association Mountain-Plains Regional Conference in June. This is in addition to the myriad of methods of teaching the "applied" workshops, entrepreneurship, computer and technology seminars and workshops, available to North Dakota Business and Office Technology instructors.

The "Business Cluster Tech Prep" curriculum guide, developed for business and office technology was completed and distributed in 1994 and was used extensively in the

instruction. Applied mathematics and applied communication skills are integrated into the curriculum in all business and office technology programs. Two stand-alone applied communication courses were taught by business and office technology instructors.

TECHNOLOGY EDUCATION

Interest in establishing new Technology Education programs continues to be on the rise as the number of approved programs rose from 90 in PY 93 to 95 for PY 94. The number of cooperative programs stood at eight. Finding qualified instructors continues to be a problem, and the number of candidates in teacher preparation forecasts real problems yet to surface.

Approved Technology Education programs must meet guidelines established by the State Board for Vocational and Technical Education to become eligible for funding. Reimbursement is made at the current rate on equipment, instructional aids, travel, and the extended contract portion of the instructor's salary. Extended contracts provide time for the instructor to attend workshops, develop instructional materials, maintain equipment, and make program improvements. Increased funding is also provided to schools participating in cooperative arrangements as an incentive to encourage the sharing of staff.

Six high tech cooperatives operated in PY 94, serving nearly 90 schools. Continued growth in this approach is a certainty, with expansion of the current coops a foregone conclusion and the creation of another on the drawing board. The continued involvement of science and math instructors in the process has been extremely positive. The largest representative group using the high tech equipment continues to be Technology Education, as the equipment relates directly to their content areas. A three-week workshop was again conducted at Bismarck State College for instructors using the equipment. The workshops are offered under the auspices of the University of North Dakota's Industrial Technology Department.

Integration of the applied academics into Technology Education programs has shown a positive trend, particularly in Math and Communication. Emphasis on the applieds' is promoted at in-service activities such as the All-Service Vocational and Technical Education Conference and the North Dakota Education Association Teacher Convention. Promotion is also done through the association newsletter TEAM and information materials sent by the State Board for Vocational and Technical Education. Workshops for instructors are conducted on an as-needed basis. Applied Math and Communication workshops for new instructors were available throughout the year. Efforts continue to promote the applieds as part of the preservice program for future teachers.

Tech Prep activities continued to involve a larger percentage of the schools. Tech Prep and School-To-Work sessions were conducted at the Technology Education sectional meetings during the All-Service Vocational and Technical Education Conference. Interest in the modular approach to teaching Technology Education continues to be on the rise in North Dakota, with three programs using this methodology to various degrees. Six additional modular programs are planned for PY 95. Curriculum revision work was put on hold until a determination is made as to how the modules fit the current required offerings in Technology Education.

TRADE AND TECHNICAL EDUCATION

In 1993-1994 twenty part-time adult programs served 301 participants. There are two full-time adult programs serving the Apprenticeship, Training and Safety programs in the rural electric and rural telephone cooperatives serving 581 participants. The North Dakota State College of Science through the Related Studies program served 613 students through correspondence. The Missouri River correctional Center served 16 adults in the automotive program and 13 adults in the welding program. The North Dakota Association of Builders trained 7 incarcerated participants in a carpentry pre-apprenticeship program. The Sheetmetal Workers apprenticeship program served 33 participants. The Plumbers and Pipefitters apprenticeship program served 12 apprentices. The IBEW Electrical Journeymen apprenticeship program delivered training to 80 apprentices.

The curriculum improvement plan continued with the following: completion of the statewide Automotive Technology curriculum, conducted two Diesel Technology curriculum development workshops, conducted two Welding Technology workshops, completed the Automotive Collision Technology curriculum and completed the Printing Technology curriculum.

The baccalaureate degree for vocational education was finalized in PY 94. The degree is being delivered through Valley City State University and is available to all current vocational educators in the Trade, Technical and Health Careers areas. The degree is also available for industry personnel who wish to upgrade their management and presentation capabilities.

The North Dakota Association of Builders and the Association of General Contractors of North Dakota formed a partnership in a Residential Carpentry Apprenticeship program. The Bureau of Apprenticeship and Training approved the program. A statewide Residential Carpentry Apprenticeship Committee was formed and Mr. Don Roloff from the office of Trade and Industry, Technical and Health Careers was named as the educational member of the committee. The Residential Carpentry Apprenticeship program will allow an advanced standing status to students who have completed an approved Construction Technology program in their local high school or

vocational center. An effort was begun in PY 94 to consolidate the two-year state and Native American colleges to deliver the Residential Carpentry Apprenticeship program.

PY 1994 saw the office of Trade and Industry, Technical and Health Careers involved in the development of an Engineering Cluster for Tech Prep. The organizational activity resulted in an educational blueprint for youth who wish to pursue a career in the trades, manufacturing, industrial areas or engineering.

III. SINGLE, DISPLACED HOMEMAKERS AND SINGLE PREGNANT WOMEN

Over 5,700 North Dakota students, instructors and administrators participated in project services, according to results of PY 1993-94 data submitted by funded local education agencies. Projects were funded by the State Board for Vocational and Technical Education through the Carl D. Perkins Applied Vocational and Technology Education Act. Services were provided in one of two types of projects. One type (Section 221) aimed to increase the vocational preparation and employment of single parents, displaced homemakers, and single pregnant women. The other aimed toward sex equity in vocational preparation by increasing the participation of students in programs not traditional for their gender.

SECTION 221

Title II, Part B, Section 221 funds programs for single parents, displaced homemakers and single pregnant women. These funds can be used to (1) provide, subsidize, reimburse, or pay for preparatory services, including instruction in basic academic and occupational skills, necessary educational materials, and career guidance and counseling services, in preparation for vocational and technical education and training that will furnish single parents, displaced homemakers, and single pregnant women with marketable skills; (2) make grants to eligible recipients for expanding preparatory services and vocational and technical education services when the expansion directly increases the eligible recipients' capacity for providing single parents, displaced homemakers, and single pregnant women with marketable skills; (3) make grants to community-based organizations for the provision of preparatory and vocational and technical education services to single parents, displaced homemakers, and single pregnant women if the State determines that the community based organization has demonstrated effectiveness in providing comparable or related services to single parents, displaced homemakers, and single pregnant women, taking into account the demonstrated performance of such an organization in terms of cost, the quality of training, and the characteristics of the participants; (4) make preparatory services and vocational and technical education and training more accessible to single parents, displaced homemakers, and single pregnant women by assisting such individuals with dependent care, transportation services, or special services and supplies, books, and materials, or by organizing and scheduling the programs so that such programs are more accessible; or (5) providing information to single parents, displaced homemakers, and single pregnant women to inform such individuals of vocational and technical education programs, related support services, and career counseling.

Programs funded under Section 221, Title II were located at thirteen different local educational agencies throughout the state. (See Appendix C)

	M	F	TOTAL SERVED	COMPLETED	CONTINUE	DROPPED
Bismarck Public Schools	1	113	114	109	5	0
Bismarck State College	0	21	21	18	2	1
Dickinson Public Schools	0	11	11	5	5	1
Fargo Public Schools	1	19	20	10	10	0
Fort Totten Public Schools	8	20	28	5	17	0
Lake Area Vo-Tech Center	0	19	19	11	8	0
Minot Public Schools	1	35	36	30	6	0
ND State College of Science	2	36	38	12	23	3
North Valley Area Vo-Tech Center	3	41	44	25	19	0
Richland County Area Vo-Tech Center	0	6	6	3	3	0
Southeast Area Vo-Tech Center	0	4	4	2	2	0
Turtle Mountain Community College	0	9	9	5	4	0
Turtle Mountain Community College	4	44	48	32	13	3
TOTAL	20	378	398	267	117	8

All funds were dedicated to programs with 45% ($148,703) going to high schools, 34% ($111,549) going to area vocational schools, and 21% ($68,086) going to postsecondary institutions. Per pupil cost was $887.40.

All single parents, displaced homemakers, and single pregnant women projects in North Dakota provided the following four basic components:

Specific vocational skill training;
Comprehensive guidance and career counseling;
Support services including child care assistance, transportation assistance, and tuition assistance;
Consumer and Homemaking instruction in nutrition, child care, family relationships and family economics.

In determining clients with greatest financial need, amount of public assistance and number of children were used as criteria.

Coordination and networking at the local and state level with Job Service North Dakota, Job Training Partnership Act, Department of Human Services, Social Services, Vocational Rehabilitation and other community-based programs expands the quality, availability and accessibility of services to this population.

PHOENIX PROJECT

The nontraditional/high wage potential program for single parents, displaced homemakers, and single pregnant women was piloted at Bismarck State College. The

project incorporated the following program components based on the model which was developed by Jo Suchat Sanders in her 1981 publication *The Nuts and Bolts of NTO: How to Help Women Enter Nontraditional Occupations* (Scarecrow Press, Metuchen, NJ 1986):

A. To assess the student's abilities and interests in order to develop a composite picture of the student's personal strengths and limitations.

B. To provide an opportunity for in-depth research of three of the student's higher-wage/nontraditional career interests. Each student must have an individualized vocational/technical education plan (IVEP).

C. To provide program participants with basic and technical skills and hands-on experiences needed to overcome the fear of entering nontraditional/high wage occupations. Ex: blueprint reading; intro to welding; electricity/electronics; industrial safety; fluid power systems.

D. To prepare program participants for nontraditional/high wage occupations by increasing self-understanding, confidence, and self-esteem. Parenting issues must also be addressed.

E. To provide an overview of basic math skills and an introduction to algebra. To strengthen problem solving and to reduce math anxiety through mathematics application in occupational-related activities.

F. To provide the opportunity for program participants to communicate effectively in the workplace.

G. To provide program participants preparing for nontraditional/high wage occupations support and practices using interpersonal communications and small group process skills.

H. To provide the opportunity for program participants to gain strength, endurance, and flexibility so they are more physically able to perform tasks required for nontraditional/high wage potential occupations.

PHOENIX is a one-semester program designed to help economically disadvantaged women prepare for technical training and employment in higher-wage technical careers formerly referred to as nontraditional jobs. The projects curriculum has three primary goals: One is to help span the gender gap giving adult women a foundation of technical knowledge and skills needed to enter and successfully complete a two-year postsecondary program. The second goal is to provide on-going support services to overcome barriers women face when they enroll in a male dominated career. The third

goal is to convey occupationally relevant knowledge and skills that serve as a foundation for life-long learning processes mandated by high skill/high wage jobs.

The PHOENIX Project provided 432 instructional hours to a minimum of 10 JTPA eligible students per semester. These hours do not include orientation of students, individual counseling or summer support group.

To enhance the relationship of course content to job settings, important program characteristics include: hands-on learning, applications orientation, team learning processes (cooperative learning), success-oriented environment and positive reinforcement, de-emphasis of failure, encouragement of cooperation rather than competition, and attention to student learning styles.

The PHOENIX Project integrated the concepts from the Tech Prep BRIDGE program as well as Transformations. Course content advances as students complete each phase of training, and the curriculum structure forms an integrated learning process. Technical concepts and competencies are sequentially built on foundations forged in prior course work.

PHOENIX OUTLINE

I. BRIDGE THE GENDER GAP

A. Demonstrate Technical Skills for Entering a Non-traditional Occupation (NTO)

1. Applied Math Concepts
2. Electricity/Electronics
3. Blueprint Reading
4. Intro to Welding
5. Fluid Power Systems
6. Critical Path Finding
7. Industrial Safety

B. Demonstrate Interpersonal Skills in Overcoming Barriers Women Face in Non-traditional Programs

1. Physical Fitness/Health
2. Gender Equity/Workplace Communications
3. Human Behavior and Society
4. Applied Issues (Support System)

II. SELECT A HIGHER WAGE TECHNICAL OCCUPATION

A. Map a Career Plan

1. Career Counseling and Assessment
2. Research and Career Exploration
3. Individual Educational Plan

III. DEVELOP PARTNERSHIPS

A. Coordinate Assessment and Support Services with Appropriate Agencies

1. Job Service
2. Social Services
3. Workers Compensation
4. Vocational Rehabilitation
5. Armed Forces
6. Educational Resources, etc.

B. Utilize Expertise from the PHOENIX Advisory Council consisting of Bismarck State College staff, industry, agencies and advisory groups.

C. Share responsibility for recruiting women into higher wage technical careers with educational institutes, social agencies, advisory groups, counselors, etc.

D. Share responsibility for job placement and follow-up with appropriate agencies and industry.

PHOENIX PROJECT CURRICULUM

The PHOENIX curriculum totals 432 hours as follows:

Career Counseling and Assessment - 60 hours

Research and Career Exploration - 22 hours

Technical Preparation - 122 hours

Blueprint Reading - 24 hours
Intro to Welding - 24 hours
Electricity/Electronics - 44 hours
Fluid Power Systems - 12 hours
Industrial Safety - 8 hours
Critical Path Finding - 10 hours

Human Behavior and Society - 50 hours

Applied Math Concepts - 58 hours

Workplace Communications - 30 hours

Applied Issues - 54 hours

Physical Fitness/Health - 36 hours

PHOENIX Project

2nd Semester
January 18 - May 20

	GENERAL ACADEMIC PREPARATION				
8:30 - 9:20	Tutoring - Keyboarding - Counseling				
9:30 - 10:20 BSC Credits (All semester)	Human Behavior & Society Armor 100 (M)	Leisure Time Activities Health 110 Armor A 100 (T)	Human Behavior & Society Armor 100 (W)	Leisure Time Activities Health 110 Armor A 100 (TH)	Human Behavior & Society Armor 100 (F)

	TECHNICAL PREPARATION FOR NON-TRADITIONAL OCCUPATIONS		
10:30 - 11:50	Applied Issues (Group) *PHOENIX* Project (W) January 18 - February 28	Blueprint Reading WELDING Dept. (M-T-W-TH) March 28 - April 21 (22 hours)	Intro to Welding Welding Dept. (M-T-W-TH) April 25 - May 19 (22 hours)
12:00 - 1:00	<—LUNCH—>	<—LUNCH—>	<—LUNCH—>
1:00 - 2:20	Career Assessment & Exploration *PHOENIX* Project (M-T-W-TH) January 18 - February 28 (40 hours)	Workplace Communications *PHOENIX* Project (M-T-W-TH) March 1 - April 21 (40 hours)	Applied Issues (Individual) *PHOENIX* Project April 25 - May 19
2:30 - 3:20	*Self-Study*	*Self-Study*	*Self-Study*
3:30 - 5:20	Applied Math Concepts POWER/PROCESS Dept. (M-T-W-TH-F) January 18 - February 28 (58 hours)	Electricity/Electronics ELECTRONICS Dept. (M-T-W-TH) March 1 - April 14 (44 hours)	Fluid Power Systems POWER/PROCESS Dept. (M-T-W-TH) April 18 - May 5 (24 hours) Industrial Safety *PHOENIX* Project May 9 - 12 (8 hours)
	<——— 6 weeks ———> January 18 - February 28	<——— 8 weeks ———> March 1 - April 21	<— 4 weeks —> April 25 - May 19
	<——————— Semester ———————>		

Twenty-one students were served in the pilot project. Eighteen completed, two will continue one more semester to raise their math scores so they are eligible for the technical skills programs, and one dropped.

The field testing process was begun in early 1994. A team of administrators and instructors from State College of Science visited the PHOENIX project on the Bismarck State College campus on March 3, 1994, and all equity coordinators throughout the

state visited the BSC campus on March 29-30, 1994. Instructors and students from the pilot project spent the day sharing and relating their experiences of the first year.

JOB CORP SOLO PARENT PROGRAM - MINOT

On October 28, 1993, the Flint Hills Job Corp site located at Manhattan, Kansas was visited to learn more about the services provided to the target population and their children. After spending the entire day at the site the following concerns arose:

- The dorm must be large enough to provide additional rooms for mothers with two or more children.
- The single parents are still being trained in very traditional programs. They continue to be on welfare programs after completion (PHOENIX?)
- There is no source of funding upon the single parents departure to set up a home for the family. Other students have this luxury.
- Will Minot State College have a college tuition waiver for the students to continue their education? What will the relationship be with the Minot schools?

IV. SEX EQUITY

SECTION 222

Section 222 of Title II funds (1) programs, services, comprehensive guidance and counseling, and activities to eliminate sex bias and stereotyping in secondary and postsecondary vocational and technical education; (2) preparatory services and vocational and technical education programs, services, and activities for girls and women, aged 14 through 25, designed to enable the participants to support themselves and their families; and (3) support services for individuals participating in vocational and technical education programs, services, and activities described above including dependent-care services and transportation.

Approximately 5,300 students, parents, teachers and adults received service through the projects. Services provided included staff in-services, four-year plan development, interest inventories and career research, work samples, job seeking and keeping tutoring, pre-tech career development and life skills in pre-occupational skills.

Programs funded under Section 222, Title II were located at Bismarck, Fargo, Fort Totten, Grafton, Jamestown, Devils Lake, Minot, Wahpeton, Belcourt, Grand Forks and Williston. (See Appendix D)

The State Board for Vocational and Technical Education is authorized by the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 to assist administrators, instructors and counselors of secondary and postsecondary institutions in implementing programs and activities to increase access for women (including displaced homemakers and single heads of households) to vocational and technical education and to increase male and female students' enrollment in nontraditional programs.

To work toward the accomplishment of this task, the State Board for Vocational and Technical Education developed annual goals. These included:

- Train all vocational instructors in GESA
- Provide technical assistance for the development of equity plans in schools
- Provide a two-hour awareness on sexual harassment to all vocational students
- To provide equity training for secondary and postsecondary counselors, Job Service counselors and interviewers, and other social service workers

- Integrate equity training into the four-year college vocational teacher prep programs

The status of each goal is:

TRAIN ALL VOCATIONAL INSTRUCTORS IN GESA

There are approximately 1,093 vocational/technical instructors in North Dakota funded with vocational technical dollars. During the school year 1993-94, approximately 142 instructors were trained in GESA. See tables below.

NORTH DAKOTA
VOCATIONAL AND TECHNICAL EDUCATION
1993-94

	TOTAL	MALE	FEMALE
Agriculture	126	121	5
Career Development	61	35	26
Home Economics	171	0	171
Local Directors	25	18	7
Marketing Education	51	34	17
Business & Office Technology	154	88	66
Educational Equity	38	8	30
Special Needs	154	31	123
Technology Education	136	136	0
Trade, Tech, Health	159	131	28
State Supervisors	18	14	4
TOTAL	1,093	616	477

Data taken from the *Vocational and Technical Education Directory* listing instructors reimbursed with Vocational-Technical dollars. There are other personnel not listed.

1993-94
GESA TRAINING

Project	No. of Participants	Pre-School/ Elementary	Jr. High/ Secondary	Vocational	Special Education	Adult/ P-Sec	Admini-stration	Male	Female	Facilitator
LAVTC	18	3	6	9				5	13	Fee
TMCHS	31		23	8				12	19	Burley
JAVTC	22		4	17			1	9	13	Placek
SEAVTC	16			16				6	10	Wambheim
FARGO	15	7	6	2				2	13	Lockwood/ Schaefer
MINOT	26	4	12	10				5	21	Placek
TMCC	14					14		6	8	Placek
TOTAL	142	14	51	62		14	1	45	97	

PROVIDE TECHNICAL ASSISTANCE FOR THE DEVELOPMENT OF EQUITY PLANS IN SCHOOLS

EQUITY PLANS

The equity plan format in North Dakota consists of five steps ranging from in-service for staff and administration to the implementation of an equity plan. Every school in North Dakota receiving vocational funding must be in the process of developing an equity plan. School year 1993-94, there were 35 consortiums, 16 single districts and 8 state institutions working on this process.

The following table shows the level completed by the LEA.

EQUITY PLAN	1	2	3	4	5	Total Plans
Consortium Plans	1	27	3	4		35
Single Districts	2	9	3	2		16
State Institutions	4	4				8
TOTAL PLANS	**7**	**40**	**6**	**6**	**0**	**59**

There are approximately six (6) consortia, single districts or state institutions that felt there were no biases or stereotypes in their buildings. These six plans have been targeted for technical assistance for school year 1994-95.

1993-94 SCHOOL EVALUATIONS

School evaluations is also an area where technical assistance is provided to schools in the development of their equity plans. During the school year 1993-94, there were approximately 19 school team evaluations conducted by NCA, SSIP, and SBVTE. The educational equity administrator attended 13 of the 19 evaluations to do a basic Title IX compliance study and provide technical assistance to the school administration on the development of their vocational equity plan. This will be an ongoing process each year to help schools at the local level develop their equity plans.

LOCAL ASSISTANCE

Local technical assistance provided by sex equity proposals included services to Devils Lake Public, North Valley Consortium and the Lake Area Consortium. (See table)

Equity Plan In-Service
1993-94

School	Project Provider	Preschool/ Elementary	Jr.High/ Secondary	Adult/ Post-Secondary	Admini-stration	M	F	Total
Devils Lake Public	LAVTC				18	14	4	18
Devils Lake Public	LAVTC				9	7	2	9
Lake Area Perkins Consortium	LAVTC		31			17	14	31
Lake Area Perkins Consortium	LAVTC		39			17	22	39
North Valley Consortium	NVAVTC		51			22	29	51
TOTAL			121		27	77	71	148

PROVIDE A TWO-HOUR SEXUAL HARASSMENT AWARENESS TO ALL VOCATIONAL STUDENTS

Fiscal year 1993 it was reported by the local schools there were approximately 44,000 students enrolled in vocational technical education programs. School year 1993-94 the equity projects reported sexual harassment awareness training was provided to approximately 3,600 students, administrators and instructors.

TOTAL ENROLLMENTS OF PROGRAMS FUNDED IN PART BY THE STATE BOARD FOR VOCATIONAL AND TECHNICAL EDUCATION FISCAL YEAR 1993

SERVICE AREA	TOTAL	MALE	PERCENT	FEMALE	PERCENT
Agriculture	5,637	4,290	76	1,347	24
Consumer and Homemaking	9,874	3,409	34	6,465	66
Diversified Occup.	24	16	67	8	33
Health Education	1,449	264	18	1,185	82
Marketing Education	2,256	1,001	44	1,255	56
Occupational Home Economics	518	89	17	429	83
Office Education	10,542	4,292	41	6,250	59
Technical Education	525	483	92	42	8
Technology Education	5,165	4,184	81	981	19
Trade & Industry	8,032	6,777	84	1,255	16
TOTAL	44,022	24,805	56	19,217	44

Sexual Harassment Awareness Training 1993-94

School	Project Provider	Elementary Students	Secondary Students	Instructors	Administration	Other	M	F	Total
Devils Lake Public	LAVTC			80			17	63	80
Devils Lake Public	LAVTC				10		9	1	10
Devils Lake Public	LAVTC			16				16	16
Devils Lake Public	LAVTC		30				?	?	30
Grafton Public	Grafton Public		93				46	47	93
Grafton Public	Grafton Public		82				42	41	82
Grafton Public	Grafton Public								
	RCAVTC		710				?	?	710
Fargo Public	Fargo Public		12	130	10		?	?	152
Minot Public	Minot Public		<--1,239-->		43		31	12	1,282
FHA Rally	NVAVTC		166				9	157	166
AAUW	NVAVTC					12		12	12
Grafton Public	NVAVTC			57			22	35	57
Consortium Schools	NVAVTC		794				?	?	794
Four Winds	NVAVTC			52					52
Rugby	NVAVTC			68					68
TOTAL			3,126	403	63	12	176	1,384	3,604

TO PROVIDE EQUITY TRAINING FOR SECONDARY AND POSTSECONDARY COUNSELORS, JOB SERVICE COUNSELORS AND INTERVIEWERS, AND OTHER SOCIAL SERVICE WORKERS.

Gender and Ethnic Expectations and Client Placement Program

I. INTRODUCTION

The goal of this project was to establish a 15-20 hour, graduate level, in-service program dedicated to the elimination of gender and ethnic bias found in the career development and job placement process. To complete this task, the following specific objectives were developed:

A. To establish a staff of educators and technical assistance providers who will develop this 15-20 hour in-service program.

B. To conduct state and national research regarding gender and ethnic bias found in the career development and placement process.

C. To conduct research regarding current counseling theories that when utilized will meet the needs of females and minorities.

D. To establish a working model for this workshop using the five areas of disparity outlined in the GESA and similar in-service programs as a guide.

E. To establish specific workshop activities that will actively engage participants in the understanding of the theories and skills necessary to overcome bias.

F. To field-test these activities in programs currently serving the needs of JOBS clients at the North Valley Vocational and Technology Center.

G. To provide one pilot workshop for high school counselors, Job Service employment specialists, and other human services personnel working in the state to serve as a means for program evaluation.

II. NEED

The need for this project stems from recognition that North Dakota educators have responded to GESA training enthusiastically in the past few years. However, issues school counselors and other career professionals deal with on a daily basis, while related to educator's issues, are different because the "helping" relationship is different.

Gender and Ethnic Equity and Client Placement is a program designed to help guidance or career professionals re-think and, consequently, correct practice that is ethnic and gender biased. The workshop format will give to participants tools needed to change personally and then affect change for their clients, agency and community.

III. CONTENT

This program addresses the opportunity "helping" professionals have assisting clients seeking career direction. Nontraditional choices can be difficult for client and counselor alike. The training helps professionals recognize and deal with difficult issues related to nontraditional choices.

The training includes the research regarding gender and ethnic bias found in career development and placement processes and research current counseling theories which, when utilized, meet female and minority needs. Also included in the training are the workshop activities that actively engage workshop participants in the understanding of the theories and skills necessary to overcome bias.

Section I: The Problem

A. Bias and the Helping Professional
B. Bias in Helping Theory
C. Bias and Helping Organizations

Section II: Helping Relationships—A Beginning

A. The Client's Frame of Reference
B. Recognizing Issues Relevant to the Client
C. Bias in Pre-Interview Perceptions
D. Initial Interview and Assessment Procedures

Section III: The Counseling Relationship—Moving Forward

A. Non-Biased Counseling Methods
B. Gender and Ethnic Fair Career Guidance Materials

Section IV: The Helper as an Agent for Change

A. The Ethics of Change
B. Beginning the Process of Change
C. Developing an Action Plan

IV. PILOT TRAINING

The pilot training was held at the North Valley Vocational and Technology Center, Grafton, North Dakota, on October 14-15, 1993. It included Job Service employees from Region IV, equity coordinators, and vocational high school counselors from that area.

V. BUDGET

The State Board for Vocational and Technical Education received a grant of $4,500 from Job Service North Dakota which it matched with equity money to develop this training program during 1992-93.

VI. STATEWIDE IMPLEMENTATION

The equity principles and methods in this training assume a continuum of career development and awareness from early childhood through all stages of adulthood. Men and women from all ethnic backgrounds have been, are, and will continue to be impacted by the bias of helping professionals in academia, private sector and public agency settings. The development of non-biased skills and attitudes will go a long way in moving equity one step closer to reality. Counselors have the unique opportunity and responsibility to work with clients, staff, employers and communities in achieving this end.

The participants of the training will now be able to provide the "helping" professionals in their communities to recognize their own bias and how they impact the client.

TO INTEGRATE EQUITY TRAINING INTO THE FOUR-YEAR COLLEGE VOCATIONAL TEACHER PREP PROGRAMS.

Equity In-service was provided to Minot State University, North Dakota State University at Fargo, and University of North Dakota at Williston.

A course was developed and presented for inclusion in the vocational/technical teacher preparation program that was implemented at Valley City State University. The goals for the class are:

To promote the full utilization of human resources within our institutions and outside of it.

To expand course participants' knowledge of gender equity related issues.

To foster activities at the college level that reduce gender bias and stereotyping in vocational education.

V. CRIMINAL OFFENDERS IN CORRECTIONAL INSTITUTIONS

TYPES OF INSTITUTIONS, ACHIEVEMENTS AND SERVICES FOR CRIMINAL OFFENDERS

The North Dakota State Board for Vocational and Technical Education provide funds to the Department of Corrections based on the regulations set forth by the Carl Perkins Vocational and Applied Technology Act of 1990. Funds are distributed to three divisions: State Penitentiary, Missouri River Correctional Center (formerly the State Farm), and the North Dakota State Industrial Secondary School. A collaborative effort exists between the Department of Corrections and two postsecondary institutions: Bismarck State College, 1500 Edwards Avenue, Bismarck, ND 58501 and North Dakota State College of Science, Continuing Education Division, 708 Dakota Avenue, Wahpeton, ND 58075.

The North Dakota State College of Science is involved in the Auto Mechanics program at the Missouri River Correctional Center. Bismarck State College provides technical assistance to the Office Education program, Guidance program, and a new Restaurant Management program at the North Dakota State Penitentiary. This program accepted incarcerated individuals in PY 93. A Welding program at the Missouri River Correctional Center is affiliated with Bismarck State College. The North Dakota State Industrial School provides services to adjudicated youth through pre-employment maturity skills, human relation skills, and basic communication skills, and the Technology Education program.

Individuals that have been incarcerated are involved in student organizations, namely VICA. Inmates have been involved in leadership and skills contests. Several students have placed first or second in these contests.

VI. SPECIAL POPULATIONS

The goal of this section of the act is to provide vocational education services and activities to specific populations. The following summarizes these parts of this title.

INDIVIDUALS WITH DISABILITIES

At the secondary level each program submitted assurances that all equal access requirements of the Carl D. Perkins would be met. In addition, funding for each program was based on a narrative description of the program which included explanation of how students who are disabled and their parents were informed of all vocational options by no later than the beginning of their ninth grade year. The narratives also described the program referral process; the process for determination of eligibility; the cooperative efforts with Special Education, Vocational Rehabilitation, and Developmental Disabilities; the involvement of professionally trained counselors in assessment and planning; and the process of planning and preparing for the transition from school to work.

The Interagency Steering Committee has continued its efforts in developing and implementing transition planning. The project is funded with local and Carl Perkins II federal funds. The program is designed to serve severely disabled students. The program serves students from the Bismarck-Mandan schools.

The State Steering Committee is made up of members from Special Education, Vocational Rehabilitation, Developmental Disabilities, Job Service and Vocational and Technical Education. Individuals from these five agencies have spearheaded the grant application process to secure funds for providing transition services to individuals with disabilities throughout the state. The planning activities include: hiring a coordinator, completing a needs assessment, establishing regional transition councils, hiring regional transition coordinators, having a workshop on transition services, and planning.

DISADVANTAGED

At the secondary level each program submitted assurances that all equal access requirements of the Carl D. Perkins would be met. In addition, funding for each program was based on a narrative description of the program which included explanation of how students who are disadvantaged and their parents were informed of all vocational options by no later than the beginning of their ninth grade year. The activities were based on a statewide survey of special needs personnel.

A program to serve adjudicated youth was started in January of 1989. This program is funded through Carl Perkins, local funds, JTPA and Division of Juvenile Services.

The diversified occupations program allows students the opportunity to develop the following: pre-employment skills, vocational career planning and education along with work experience. In addition, it is expected to provide a student the opportunity to get a GED or high school diploma.

The program is located at a youth correction facility and linked to seven similar programs throughout the state. The communities are as follows: Belcourt, Bismarck, Beach, Devils Lake, Dickinson, Grand Forks, and Williston. This network of services allows prompt and appropriate placement of students.

Postsecondary schools continue their efforts toward improved services to the disadvantaged. Several postsecondary institutions that serve Native American students provide services in the basic skills area. Other postsecondary institutions provide both tutorial and basic skills remediation.

LIMITED ENGLISH SPEAKING

Services to Limited English Proficient have been provided as requested by local education agencies. Continued efforts were made in providing services to refugee students through career development, English as a second language instruction, and assistance relative to vocational assessment.

Services are provided to LEP Native American students in a small rural southwestern school. These services are provided through the use of an aide and a tutor. The school administration is very positive about the effects of the program.

VII. STATE LEADERSHIP AND PROFESSIONAL DEVELOPMENT

The State Board for Vocational and Technical Education conducted several projects in professional development and curriculum. The following is a summary of these activities and projects and the amount of dollars expended:

PERSONNEL DEVELOPMENT

Activity	*Federal $*	*Notes*
Emerging Technologies	$ 12,000	Statewide Workshops
Applied Mathematics In-service	7,792	Statewide Workshops
North Dakota LEAD Center	1,000	Administrator In-service
Applied Communications In-service	297	Statewide Workshops
Vocational Guidance In-service	850	Statewide Workshops
Teacher Education In-service	3,451	Teacher Ed In-service
Desktop Publishing In-service	12,334	Statewide Workshops
Applied Bio/Chemistry In-service	2,957	Statewide Workshops
Statewide High-Tech Consortium Support	63,777	Manage High Tech In-service
	$104,458	

CURRICULUM DEVELOPMENT

Activity	*Federal $*	*Notes*
No Dak Vocational Curriculum Library	$ 11,848	Statewide Vo-Tech
Marketing Education Model Programs	10,000	Statewide Modelling Project
Statewide Curriculum Project	51,252	Statewide Curriculum Coordination
ERIC Project	747	Statewide Use by Vo-Tech People
	$ 73,847	

PERKINS ASSESSMENT

Activity	*Federal $*	*Notes*
1993 Perkins Assessment	$ 4,000	Perform Perkins Assessment
	$ 4,000	

PY 94$ COMPARED WITH PY 91$	*PY 91*	*PY 92*	*PY 93*	*PY 94*	*DIFFERENCE*	*PY 94 IS*
Personnel	$280,195	99,659	86,881	104,458	-103,737	37% of PY 91
Curriculum	$106,513	63,062	65,515	73,847	- 32,666	69% of PY 91

Much fewer curriculum and personnel federal dollars available for these purposes caused dramatic reductions in services to local agencies and teachers.

Curriculum/In-service Meetings held during PY 94 numbered 56 with an attendance of 1020 people. Included were:

KIND	*NO. MEETINGS*	*ATTENDANCE*
Statewide Applied Math In-service	5	37
Statewide Applied Communications In-service	3	83
Statewide Applied Bio/Chemistry In-service	2	26
Statewide Workplace Readiness In-service	6	108
Statewide Principles of Technology In-service	1	12
Statewide CBE Curriculum In-service	5	58
Statewide High Technology In-service	6	108
Statewide Career Development In-service	3	102
Statewide Special Needs Curriculum	1	47
Statewide Marketing Curriculum	1	7
Statewide Welding Curriculum	2	17
Statewide Agriculture Education Curriculum	1	15
Statewide Adult Farm Management Curriculum	1	63
Statewide Auto Collision Curriculum	1	8
Statewide Graphic Arts Curriculum	1	4
Statewide Health Careers II Curriculum	4	23
Statewide Diesel Technology Curriculum	2	14
Statewide Biological Science in Ag Ed Curriculum	1	35
Statewide Postsecondary Ag Ed Articulation	1	19
Statewide Tech Prep Train the Trainer	2	85
Statewide Tech Prep Engineering/Industrial Cluster	2	47
Statewide Tech Prep Business/Marketing Cluster	1	14
Statewide Gender Equity	4	88

These activities were funded with federal dollars almost exclusively.

VIII. COMMUNITY-BASED ORGANIZATIONS

The community-based organization projects in North Dakota follow the guidelines established by the Carl Perkins Act. Federal funds under this provision of the Act are used to encourage seven types of projects. These are:

1) Outreach programs facilitating entrance into vocational and technical education employment;

2) Transitional services;

3) Pre-vocational education preparation;

4) Special pre-vocational programs for non-English speaking youth or areas having a high density of poverty;

5) Career intern programs;

6) Assessment in relation to vocational education and jobs;

7) Career guidance and counseling.

Furthermore, all applications are required to be joint projects between Community Based Organizations and public education schools or institutions. The public education school or institution serves as the LEA for the project.

In PY 93, eight community-based organization projects were funded at a total cost of $61,410. A total of 307 clients received direct services as a result of these projects. Funds could be used for operating expenses (excluding facilities lease or rental), personnel costs directly associated with instructional services, instructional materials and supplies, and contractual services. Because of the limited funding of this project, the State Board for Vocational and Technical Education has decided not to use the funds for the purchase of equipment. The eight funded projects were:

Able Inc.
653 19th St West
Dickinson ND 58601
(10 participants)

Career Bank Reachout Program
1104 2nd Ave South
Fargo ND 58103
(10 participants)

Dakota Prairie Comm Action Agency
1219 College Drive
Devils Lake ND 58301
(3 participants)

Dakota Boys Ranch
PO Box 5007
Minot ND 58702
(24 participants)

ND Opportunities
PO Box 608
Fargo ND 58107-0608
(33 participants)

Preparation for Employment Program
Pathfinder Services of North Dakota
PO Box 1000
Minot ND 58702-1000
(16 participants)

Transitional Services
Fargo Public Schools
Fargo ND 58103
(4 participants)

Police Youth Bureau
Bismarck Police Department
760 S. 9th St
Bismarck ND 58504
(12 participants)

Southeast ND Community Action Agency
3343 15th Street South
PO Box 2871
Fargo ND 58108
(62 participants)

The following types of services were provided by each Community-Based Organization Project:

Able Inc.: On-site summer work experience for Developmentally Disabled 16 to 21 year olds. Work sites were located in 6 North Dakota rural communities.

Career Bank Reach Out Program: Dropout prevention, career guidance, career internship. Focus was on Teenage Parents trying to complete their high school education in alternative high school settings.

Dakota Prairie Community Action Agency: Career guidance career search training for the chronically unemployed young adults and adults.

Dakota Boys Ranch: Career and educational guidance. Vocational evaluations. Using career interests and aptitudes as a tool to improve math and language arts development.

North Dakota Opportunities: Postsecondary vocational opportunities and career guidance services for economically deprived migrant farm workers.

Preparation for Employment Program: Career guidance and career internship project in a small rural community setting. Clients were high risk students.

Police Youth Bureau: Dropout prevention, career guidance, career exploration, access to alternative high school. Clients were at risk, adjudicated or near adjudication students.

Southeast North Dakota Community Action Agency: Career guidance, career search training for chronically unemployed young adults and adults.

Transitional Services: To provide vocational experiences to individuals with developmental disabilities.

CLIENTS SERVED:	SITE:	PURPOSE:
10 participants 16-21 2 - males 8 - females	Able Inc. 653 19th St West Dickinson ND 58601 Grant Amount - $8,638	To provide Developmentally Disabled Clients a summer work experience. Six rural communities were used. Job sites included grocery store, beauty shop, schools, nursing homes, courthouses, retirement home, restaurant, city. Work attitude was emphasized.
10 students age 15-21 10 - female	Career Bank Reach Out Program Fargo Public Schools Grant Amount - $10,000	To serve at risk students at Fargo, West Fargo Public Schools. These students have all dropped out of their high school programs. This alternative allows them to re-enter a high school program that emphasizes work experiences in a real life work situation allowing for career exploration that would encourage high school graduation. Teenage parents are a focus of this program. Parenting skills are also taught.
24 participants all males age 16-19	Dakota Boys Ranch PO Box 5007 Minot ND 58702 Grant Amount - $10,000	To provide intense vocational evaluation services. Using the results, provide career guidance. Emphasis placed on improving math and language arts skills to become employable. All participants were emotionally disturbed teenage boys.
3 participants 27-41 to adulthood 2 - female 1 - male	Dakota Prairie Community Action Agency 1219 College Drive Devils Lake ND 58301 Grant Amount - $1,650	To assist chronically unemployed, homeless, extreme poverty level, individuals receive job entry skills, re-enter the workforce. As a result of the program clients received full-time employment, part-time employment, and enrolled in some types of postsecondary training.
33 participants 13 - females 20 - males	Midwest Farmworkers Hillsboro Public School Grant Amount - $8,021	To provide personal contact with Migrant farmworkers located in the Red River Valley of North Dakota. The purpose was to inform these individuals of vocational technical training opportunities in the Red River Valley area and to encourage their enrollment in these programs.
34 participants 16 - 21 17 - female 17 - male	Pathfinder Service Mohall Public School Grant Amount - $6,527	To provide career/work experience to severely at risk students within a rural high school setting. Students are provided classroom and community work experience.
12 participants 16 - 21 2 - female 10 - male	Police Youth Bureau South Central High School Bismarck, ND Grant Amount - $6,888	To provide career counseling to first and second time juvenile offenders through a process of diversion, prevention and crises intervention. To help young people explore their future career goals on a realistic basis, develop present skills and job options.
69 participants 60 - adulthood 42 - females 27 - males	Southeast North Dakota Community Action Agency NDSU-Fargo Grant Amount - $9,967	To assist chronically unemployed, homeless, extreme poverty level, individuals receive job entry skills, re-enter the workforce. As a result of the program, 13 clients received full-time employment, 15 part-time employment, 13 enrolled in some types of postsecondary training, 10 in volunteer positions.
4 participants 2 - female 2 - male	Transitional Services Fargo Public Schools Fargo, ND Grant Amount - $5,722	To provide vocational experiences to individuals with developmental disabilities. 777 hours of actual on the job work experiences was completed by these clients.

TOTAL PARTICIPANTS = 199

TOTAL GRANT AMOUNT = $67,413

IX. CONSUMER AND HOMEMAKING EDUCATION

A. ACHIEVEMENTS IN PROGRAMS AND SUPPORT SERVICES IN DEPRESSED AREAS

Seventy three (73) secondary school districts identified as "depressed areas" received services during PY 94. One additional district did not receive funding because the program failed to meet the minimum offering of two credits. One program closed due to lack of a part-time instructor.

Services were provided to adult populations in depressed areas through one high school, one area vocational-technical center, and one Indian college.

Forty-seven percent (47%) of the total C&HE allocation for PY 94 was expended in depressed areas. Of the amount going directly to schools, rather than to statewide activities, 57% went to depressed area schools. These funds were used as follows:

- **grants to school districts for equipment and instructional aids.** Of 45 grants awarded in PY 94, 26 went to districts in depressed areas;

- **part-time adult education.** Funded programs for adults focused on the content areas of human development, individual and family health, and consumer education.

A $2000 grant to an area vocational-technical school was pooled with funds and in-kind support from several agencies to provide a variety of family life and parenting education activities for 2,508 persons (duplicated count). Because funding was available to defray costs to participants, low income adults were able to take advantage of these programs. Participants also included persons experiencing child-rearing problems who were court-ordered to attend.

A $10,000 grant to United Tribes Technical College helped to support the "Nurturing Program". This program involved cooperation among C&HE, elementary education, nursery school and day care, social services and other family support personnel.

- **continuation of C&HE pilot programs at 2 alternative high schools.** Programs at South Central High School, Bismarck, and Souris River Campus, Minot, completed their second and third years respectively. Assessment by instructors and administration is that the C&HE program fills a gap in the instructional program and services provided at the alternative schools. There is a strong link between the C&HE program and the counseling and guidance and social services programs provided to students.

B. ACHIEVEMENTS IN PROGRAMS AND SUPPORT SERVICES IN NON-DEPRESSED AREAS

Programs in 3 districts (Hope, Milnor, Watford City) were ineligible for funding because they did not meet the minimum requirement of 2 credits per year.

53% of the total C&HE allocation was expended in non-depressed area schools. These funds were used for equipment and instructional aids and were allocated through competitive grant applications. Nineteen districts received grants.

C. ACHIEVEMENTS IN STATE LEADERSHIP AND STATE ADMINISTRATION, INCLUDING COORDINATION WITH SEX EQUITY COORDINATOR

State staff conducted technical assistance visits and on-site evaluations in 22 districts during PY 94. Additional technical assistance was provided through articles in 3 VHE and 2 FHA/HERO newsletters written by the state supervisors.

State supervisors made presentations to teacher education classes at both NDSU and UND. Topics included:

- Roles and Functions of state staff
- Occupational Education programs
- Adult Education
- Advising a vocational student organization

A teacher availability study was conducted by NDSU to gather baseline data on the supply of, and demand for, home economics instructors nationwide. This information, which will be updated annually, will provide documentation of the need many states are currently experiencing for teachers. This information is essential because inaccurate data is being used by others to show that there is no demand for home economics instructors.

Planning with teacher education staff concerning preservice and in-service programs for teachers is on-going. To assure that teacher educators are able to take advantage of in-service that will increase their effectiveness, some funds are allocated for their travel to professional development activities.

Coordination with the administrator of educational equality is on-going and primarily informal. Resources are shared and information is provided when needed. The mid-year C&HE report includes a section to collect data on how equity issues are addressed in the C&HE classroom.

D. BENEFITS DERIVED UNDER PROGRAM DEVELOPMENT, PROGRAM IMPROVEMENT, CURRICULUM AND OTHER ANCILLARY SERVICES

One of the best indicators of benefits derived from the above activities is the evidence of program improvement which state staff see and hear about when they visit programs. If activities, such as the All-Service Vocational Conference, have been successful in meeting teacher needs, this will be (and is) reported by the instructor.

Several statewide activities benefitted programs in both depressed and non-depressed areas. These included:

- **curriculum development.** A mini-curriculum on nutrition education using the dietary guidelines and the food pyramid was edited in preparation for statewide distribution.

- **instructor in-service.** Funds were used to develop a workshop plan, to conduct a workshop on Food Science for C&HE instructors, and to provide some instructional resource materials for each participant. 13 persons attended the pilot workshop. More workshops will be held in PY 95.

C&HE funds also supported workshop sessions during the 1993 All-Service Vocational Conference. Seventeen workshops and 3 field trips were offered, giving each instructor the opportunity to develop a personalized in-service plan. Topics for the general home economics session included goal-setting, establishing priorities, and an update on nutrition information and its application. The conference was attended by 130 instructors.

- **FHA/HERO Leadership Development.** C&HE funds were used to provide in-service for all advisors on topics related to advising an FHA/HERO chapter. These funds also paid some of the expenses incurred by local advisors who are appointed to coordinate statewide activities such as the peer education teams.

The FHA/HERO peer education pilot program on HIV/AIDS awareness was successful. Plans were made to expand the program to all 8 FHA/HERO districts in PY 95.

- **Revision of Data Collection Instruments.** A committee of teachers was called in to review fall and mid-year reports which are required of all C&HE instructors. Their recommendations, designed to make the reports more "user friendly" and to facilitate compilation of the data, were incorporated into the report forms for PY 95.

E. APPEND EXEMPLARY PROGRAMS TO THIS REPORT, WITH CRITERIA USED IN SELECTION

Director's Award - Grafton Junior & Senior High Schools

F. ADDITIONAL DOCUMENTATION ON PERFORMANCE STANDARDS AND CORE MEASURES

G. SUCCESS STORIES

I have one student this year who is facing an extra challenge -- coping with pregnancy. LH chose to keep her baby and to finish high school. This was not a popular decision among her peers, who encouraged her to have an abortion, or with her family, who felt she should drop out of school and get married. The work we did in Choices and Challenges class helped LH to realize that females, even more than males, need education to compete in a world where women, on average, earn 2/3 of what men earn. LH will graduate this spring and has been on the honor roll both quarters during first semester. She has applied for admission to postsecondary programs at vocational-technical schools and is seeking financial aid. She has also decided that marrying just because her parents think it is best is not the best choice for her. Some adults may consider an adolescent pregnancy a failure of our education system, but I see success in the mature way that LH has chosen to deal with her situation and the kinds of decisions she has made and is continuing to make.

Sykeston High School

When Heidi enrolled in Child Development class, she knew she'd be going to college after graduation, but had no idea about her area of study. After learning about children in class and going on a field trip to NDSU she enrolled in Child Development and Family Science at NDSU. She graduated with a degree in Child Development and has made a career working in a preschool. The class in high school developed her interest in the field and she realized how important early childhood education is and how she could make a difference.

Northwood High School

A class assignment on holiday traditions led to increased communication between generations. As a group students developed a list of questions about Christmas traditions and memories, and then interviewed a nursing home resident, another adult, and a student. Students learned more about the traditions of their own families and gained insights into their parents' lives by exchanging this information. Relationships developed with the nursing home residents as a result of the visits and interviews. Some students who still have grandparents living realized how much they could learn from them.

MayPort CG High School, Mayville

Leah has been a student in home economics for 4 years. As a senior she is taking a second year (special arrangement) in child development. This led to her career decision to pursue early childhood education and special education at Moorhead State University next year. Recently Leah landed a job as latchkey coordinator for after school care, a program which is housed at the local nursing home. She is in charge of 6-18 children daily, supervising their activities and behavior. Her experiences in child care and Home Economics I gave her courage to pursue a job with this kind of responsibility.

Enderlin High School

Lynnette is a former FHA/HERO member who received a gold rating at the National STAR Events competition in the Job Interview-Senior category. Recently Lynnette's mother reported to me that Lynnette is still using these job interview skills -- she interviews others as part of her job.

Edmore High School

Recently I ran into a former student who attends UND. She is working toward her undergraduate degree in home economics and is planning on earning a Master's degree in vocational counseling. She stated that she felt home economics would be the best background for a counselor because it deals with a wide range of life skill areas as well as career awareness. She also indicated that her high school home economics experience played a major role in her career decision and goals.

Thompson High School

Brock was a student enlisted from a study hall into an advanced foods class. He entered the class with great reservations but gained enough confidence and skills during the semester that he applied for a summer and after-school job as a part-time cook at the local nursing home. He is now employed and learning many more job skills required for future employment.

New Town High School

K transferred into our school system midyear last year. When she walked into the classroom the first day she informed me she was only here because she needed another class and this was all she could work into her schedule. She was going through a tough time personally, dealing with the move and her parents' divorce. Shortly after moving here she had to cope with her mother's remarriage and living with step-siblings. In the spring we had a unit on Family Living and relationships. Since then she has seemed to pull things together. Her attitude and behavior in class made a 180 degree turn. I was surprised when she showed up in my classes again this year. She told me she thought these were the most important courses in the school because they deal with the problems teenagers face. She further surprised me by joining FHA/HERO and becoming one of my most productive

members. She has decided to do a STAR event on Family Communication to try and work out differences with her stepfamily.

Kenmare High School

Aaron is a student who came to our school on probation. He became very active in our Child Development program. We ran a 6-week preschool program. Aaron was active in the planning and in working with the children. He was also in charge of setting up equipment and video-taping the activities. He is much easier to work with since these experiences helped build his self-esteem. He has a more positive response to young children and to his fellow students.

Golden Valley-Dodge High School

I had Rachel in class all four of her high school years. As a senior Rachel participated in the "Know Your State" contest, and received second place. Both Rachel and her mother visited with me about the reasons for her success. Rachel felt that it was due to the leadership skills she had learned through FHA/HERO. There were essay questions on the quiz and students could choose the questions they felt most comfortable answering. She selected a question about running for governor and preparing a platform. She used what she had learned in leadership workshops, and through being an officer and active member in our organization to answer the question.

Finley-Sharon High School

I had a student in foster care who began confiding in me early in the school year. After a couple of months she confided that she was planning to kill herself. I consulted the principal and the counselor, and we were able to get her some help. She has been transferred to another foster home, but I still hear from her, and she appears to be making progress. She wrote that she had confided in me because everything we had been discussing in class had somehow related to her life and she knew that I would understand. This proves even more how very important home economics is to the lives of students. We teach areas that students can relate to personally.

Lakota High School

One unit in Independent Living is on jobs and careers. In this unit we discuss the job search process, write resumes and learn about interviewing. We also discuss different careers and use the "Choices" software program. Students have said that this unit makes them more aware of career options and also gives them better preparation for looking for a job.

Des Lacs-Burlington High School

X. TECH PREP

SERVICES, BENEFITS AND IMPACT OF TECH PREP

North Dakota's Tech Prep demonstration project is unique in that it addresses the needs of the entire state, a very rural state with vast spaces and small population. The list of participating schools shows that the size of the project grew beyond original expectations because of school demographics and practices in the state. Regardless of the size of the school, all graduates must be able to compete in a marketplace which calls for very different skills from the traditional workplace. That competition calls for a strong foundation of academic preparation integrated with a broad array of technical skills. (See appendix for Tech Prep model developed in our state).

The following is the Tech Prep final report based on the objectives established for this program.

Objective 1: Establish a Tech Prep Consortium

All five of the public two-year colleges, all five of the tribal colleges, and 53 of the state's high school districts are partners in the Tech Prep Consortium.

Objective 2: Establish a management team for the ND Tech Prep initiative

Membership on the management team remained the same with the exception of David Tehle, vocational director of the Fargo Public Schools, who replaced David Hinkley, who resigned as vocational director of the Grand Forks Public Schools.

Membership on the management team includes:

- Dr. Wayne Boekes, Chair, Dean, Vocational-Technical Education, Bismarck State College
- Liz Daby, Director, North Valley Vocational and Technology Center
- Gwen Eltz, Vocational Director, North Dakota State University - Bottineau
- Jeff Geiger, Principal, Century HS, Bismarck
- Bob Gette, Vice President - Instructional Affairs, ND State College of Science
- Dean Hermanson, Dean of Instruction, UND - Lake Region
- David Tehle, Vocational Director, Fargo Schools
- Ken Quamme, Vocational Director, University of North Dakota - Williston
- Kim Schock, Counselor, Elgin HS
- Tom Tracy, Superintendent, Kensal Public Schools
- Bennett Yellow Bird, Vice President, United Tribes Technical College

Ex officio members appointed by the State Board for Vocational and Technical Education are:

Ron Mehrer, Curriculum Specialist, State Board for Vocational and Technical Education and UND

Don Roloff, Supervisor, State Board for Vocational and Technical Education, Trade, Technical, and Health Programs

The project director also serves as an ex officio member of the team.

Meetings of the Management Team were held in September, November, December, January, and April.

Objective 3: Establish a Tech Prep Steering Committee to advise on policies and procedures relating to implementation

The Steering Committee was discontinued during PY 93 and several of its members were placed in more specific advisory positions.

Objective 4: Establish a fiscal agent

Bismarck State College has provided exemplary service as fiscal agent for the project.

Objective 5: Hire Tech Prep Project Staff

Anita Decker continues as director of the statewide project. Renell Henke continues as full-time secretary to the project.

Objective 6: Define "mid-level technology careers"

Information centers and publications as well as professional technical education journals, indicate that most technical occupations are in a process of evolution and may change swiftly from low-tech to high-tech. The incredible rate of change both in technology and procedures/information resulting from the use of technology indicates that today's efforts may quickly yield to obsolescence. This makes it difficult to define mid-level technology careers with any accuracy. For that reason, a more general approach to development of education required for mid-level technology careers involving the use of occupational clusters has emerged.

Objective 7: Identify existing postsecondary programs designed to prepare student for mid-level technology careers

Efforts to find linkages between education and economic development continue with many communities eagerly seeking ways to encourage their young people to remain in the state/area by providing challenging, well-paying jobs. More mature projects are actively working within their communities for worksite learning stations as well as mutual support between education and business communities.

Objective 8: Select secondary demonstration sites

No additional high school sites were selected during PY 93.

Objective 9: Establish "systemwide" Tech Prep Technology Committees

During the 1993-94 fiscal year, the business technology cluster (composed of business education and marketing education) met to affirm competencies and sequences in their cluster. Team members

include Jeff Auch, BSC; Gary Bickel, UND-Williston; Carla Bickert, BSC; Nelda Curtis, UND-Williston; Donna Fricke, Century HS (Bismarck); Bruce Harmon, South HS (Fargo); Ethel Keeley, Bismarck HS; Michael Kern, BSC; ReMae Kuehn, Center HS; Jerry Lydeen, State Board for Vocational and Technical Education; Ron Mehrer, State Board for Vocational and Technical Education; Curt Nolander, NDSU-Bottineau; Jeanne O'Gorman, Lake Area VTC (Devils Lake); Leonard Pokladnik, State Board for Vocational and Technical Education; Hollis Quamme, North HS (Fargo); Kevin Reisenauer, Magic City HS (Minot); Karla Skow, UND-Williston; Kim Slotsve, Turtle Mt. Community HS; Paulette Swartz, Red River HS (Grand Forks); Gene Turner, Standing Rock Community College; Margaret Wall, NDSCS.

The draft document has been circulating for field testing among team members and others and will be reviewed and edited by the same team. They continued to search for standards in the marketing education areas. Because of the diversity of occupations within the marketing strand of the curriculum, two standards against which to measure will be the standards set by MarkEd in their nationally validated curriculum and the skill standards for retail occupations which will be published in PY 95. The identified standard of excellence within the business/office education area, the Certified Professional Secretary designation, remained. However, the model curriculum sponsored by the Professional Secretaries International organization (which sponsors the CPS) was not available as a yardstick until early spring 1994.

The environmental technologies curriculum area has been dissolved and will be reformed as the natural resources cluster in PY 95. This will expand the cluster from environmental occupations only to agriculture-related occupations including forestry, greenhouse management, etc.

Wade Forster was the only team member to attend the second conference called by PETE NW (Partners for Environmental Technology Education) in Idaho in May. A postsecondary team member, Mrs. Kay Fulp of NDSCS, had planned to attend but was unable to because of illness.

PETE NW is a regional consortium including eight states (North and South Dakota, Wyoming, Montana, Washington, Idaho, Oregon, and Alaska). PETE joins historically separate vocational/academic arenas, thereby producing highly trained technicians able to meet today's challenging public and private environmental compliance and remediation concerns. PETE operates with the assistance of a grant from the Environmental Protection Agency.

The engineering/industrial cluster met in August 1993 and in January 1994. Team members include Joan Amsden, UND-Williston; David

Anderson, Valley City VTC; Jeff Bopp, Valley City VTC; Ken Engh, NDSCS; Laurie Erickson, North Valley VTC (Grafton); Mary Gleason, McVille HS; Joe Helmer, United Tribes Technical College; Dan Hinnenkamp, Red River HS (Grand Forks); Ray Hintz, Watford City HS; Sandy Hoffman, Central HS (Grand Forks); Michelle Keller, Bisbee HS; Steve Kennedy, South HS (Fargo); Bob Laches, Bismarck VTC; Lyle Lee, Devils Lake HS; Larry Locken, UND-Lake Region; Rita Loibl, McVille HS; Jeff Meester, Valley City VTC; Wanda Meyer, UND-Williston; Dianne Mondry, Red River HS (Grand Forks); Ken Paulus, BSC; Eddie Poehls, Tolna HS; Max Reinke, NDSCS; Jodi Shorma, NDSCS; Bill Thompson, Beulah HS; Mike Wilson, BSC; and George Zenk, Lake Area VTC (Devils Lake).

The technology programs currently included are welding, construction, auto collision, engineering, automotive, diesel, lineworker, precision machining, drafting, and electronics. A draft sequence in these program areas which includes both academic and vocational coursework has been proposed and is being assessed and field tested by member schools.

Objective 10: Identify and validate the full range of essential skills and critical attributes needed for students to enter and succeed in the career

As each curriculum cluster area is studied, every effort is made to identify the standards and requirements for workers entering such careers. Each curriculum team has determined what the enhanced skill requirements must be as well as what current needs are.

Assessment was identified early as one of the components of the Tech Prep process. Mathematica Policy Research has been hired to do a national assessment of projects across the country. The state and local assessment for Mathematica will be completed by the director through the pilot project. However, she anticipates that local sites will be responsible for the local assessment beyond the pilot.

FINDET (Follow-Up Information on North Dakota Education and Training) links key agencies in the state to develop a longitudinal database, which will chart students' progress through high school into college and beyond. ND Tech Prep has been a partner in this process since the beginning and during PY 94 contributed seed money to get the demonstration project begun.

Objective 11: Develop a program improvement plan for each postsecondary Tech Prep program

This objective is being met concurrently with Objectives 9 and 10. As standards are identified and curriculum is written, postsecondary programs will determine directions and emphasis for growth and change.

In addition, the success of FINDET will provide a valid, reliable tool to assess job placement or continuing education status of postsecondary graduates.

Objective 12: Identify and validate the full range of essential skills and critical attributes needed for students to enter and succeed in the postsecondary Tech Prep program

This will be done concurrently with Objective 10.

Much in-service has been done with both secondary and postsecondary teachers, counselors, and administrators as a means of discerning what areas of educational practice and content need to change.

The *Phoenix* project also serves to validate curriculum on the postsecondary level. They do this by testing students for competence, interests, and aptitude, by providing focused career guidance, and by incorporating those areas into their short-term program. Because the project is basically preparatory in nature and because it is only a semester in duration, we have received excellent feedback from students, the project coordinator, and from postsecondary instructors on areas of strength and weakness in our curriculum competencies.

Two English instructors from State College of Science, Mr. Alan Petersen and Mrs. Jodi Shorma, conducted a Technical Communications Seminar for all English instructors (emphasizing postsecondary applications and techniques) at the Heritage Center in December 1993. These two instructors also presented their postsecondary applied communications approach at the National Tech Prep Conference in April in Baltimore.

In late November the project director convened a Counselors' Focus Group to determine needs of counselors in adapting to the Tech Prep concept and to discuss revision of the *ND Occupational Digest* and the *American Careers* magazine.

Two Bismarck counselors, Mike Block and Wayne Jundt, revised the *ND Occupational Digest* during winter 1993-94. This project, originally underwritten by the North Dakota State Occupational Information Coordinating Council and North Dakota Tech Prep, has been adopted for use by employment specialists within Job Service district offices. Surveys of *Digest* users in May 1993 indicated wide interest and acceptance of this new guidance tool. Their suggestions for improvement were incorporated in the revision. A revised copy was mailed to all counselors in the project schools in the summer.

Another tool provided for counselors to use in acquainting students with the realities of the work world was the *American Careers* magazine with its accompanying Learning Guide. All editions -- fall, winter, and spring -- were sent to schools during PY 94. They received enough copies of each issue to serve one grade level.

In an effort to assist local project meet their implementation concerns and in an attempt to model after workplace practices, a three-tiered workshop was planned. The first workshop in the series, Train the Trainer, was held at the Seven Seas in Mandan, April 20 and 21. Career Solutions Training Group of Pennsylvania led by Dr. Doris

Humphrey and assisted by Mr. Bud Dombay worked with the local Tech Prep leaders in an effort to help each identify who should be on the local team. The major strands of this training session included identifying local stakeholders and resources, identifying barriers/solutions to Tech Prep implementation, identifying local priorities, and identifying reporting requirements and opportunities. Over 30 educators attended.

The second workshop in the series was held June 21 through 24 on the campus of Valley City State University. This was to expand issues of the Train the Trainer workshop. Each team leader was to come back with whatever size team they felt appropriate. Again Career Solutions Training Group, with Dr. Doris Humphrey and Mr. Bud Dombay, led the training. Not all team leaders returned with a team. Some returned alone. There were many new people. Some project sites could not put together a team at that point. A total of about 50 people attended. The group determined that the final workshop in the series should be held during the week, after school started in September, at the State College of Science. They also felt strongly that teams should be required so they could get to work.

The final workshop was scheduled for September 13 and 14 at the State College of Science, and no school will be represented except by a team.

Six in-service workshops were conducted using the *Workplace Readiness* curriculum from the Agency for Instructional Technology. Over 100 educators attended. Regular 15-hour workshops were held in Bowman, Fargo, Watford City, and Elgin. Special workshops included one day in Dickinson and 3 half-day sessions under provisions of the grant to Bismarck Public Schools.

During the final year of the pilot project, in-service in the applied academic courses had to be provided within a school's Tech Prep implementation grant. In that way each district/college identified their needs and those of their instructional staff and made provision for meeting those needs. Coordination of applied academic in-services was discussed at a meeting held between those from the State Board offices who are responsible for the applied academics in-services. Also discussed was the need to provide preservice training for teachers in these courses.

The Tech Prep management team, based on recommendations from the Engineering/Industrial curriculum group, agreed to purchase membership in the Applied Math II consortium. This curriculum, developed by the Center for Occupational Research and Development, will be available for in-service in ND in PY 95. Larry Merbach of NDSCS and Ray Hintz of Watford City, both teachers of mathematics, will be responsible for the in-service activities.

As part of the effort to systematize the reforms achieved through Tech Prep, the project director became involved in several school improvement processes. She has agreed to chair two different North Central Evaluation teams, one in Watford City (traditional) and one in South Central (Alternative) High School in Bismarck (continuous). She also took part in training in the Curriculum Leadership Institute system, which has a basis in both school improvement and curriculum development.

Other activities and in-services attended by the project director:

- MarkEd Tech Prep Conference - Tempe, AZ
- NDSCS tour of the BSC *Phoenix* program
- National School-to-Work/Agriculture Education Conference - St. Louis, MO
- Hazen High School/BSC Articulation Meeting
- National Tech Prep Network Conference - Baltimore
- BSC Faculty Development Day
- School-to-Work Speaker - Tom Lopp
- Integration of Vocational and Academic Education Seminar, Beaver Creek, CO
- All-Service Conference presentations to business and office educators and to counselors and local directors
- National Tech Prep Network Conference - Atlanta
- NCRVE Teleconference - Breaking the Mold
- NCRVE Teleconference - Assessment
- Luncheon meeting - Dave Pierce, president, American Association of Community Colleges

Other activities and in-services conducted by the project director:

- Grand Forks Tech Prep Within the Process of Education Renewal presentation
- Minot Tech Prep Conference presentation
- Minot Exchange Club presentation
- Williston High School In-service presentation
- Technology Learning Cooperative (Devils Lake area) Business Conference presentation
- Valley City Public Schools Curriculum Integration Workshop presentation
- Train the Trainer Workshop - Mandan
- North Dakota ACTS (Cooperative Education) Project presentation
- South Dakota Tech Prep Grant reader
- Teacher Prep Integration and Implementation Conference - Valley City State University
- Technical Communications Seminar, Bismarck

Objective 13: Establish secondary Tech Prep programs

During PY 94 12 grants to schools/colleges were awarded totaling $89,909. The following lists the schools receiving grants, along with a project description and the amount of funding.

1994 TECH PREP GRANT AWARDS

Grand Forks	Tech Prep Implementation	$12,900
Lake Area Business	Tech Prep Implementation	11,185
North Valley	Restructuring and Staff Development	4,525
Valley City	Counseling and Implementation	20,700
Oliver-Mercer	Curriculum	4,500
Fargo/NDSCS	Counseling/Graphic Arts	2,500
Minot	Counseling and Implementation	10,795
Ft. Totten	Math/Science Curriculum	2,000
Tech Lrng Coop	Counseling & Assessment	4,495
Kensal	Occupational Observation	827
Bismarck	Implementation and Curriculum	14,000
United Tribes	Recruitment/Outreach	1,482

Objective 14: Establish "systemwide program and student performance standards and measures" for secondary, adult and postsecondary Tech Prep programs

These standards have been developed or are evolving within each occupational cluster area. The standards, wherever possible, are benchmarked to industry expectations and criteria.

Objective 15: Establish a systemwide public information campaign for Tech Prep

In the December issue of *Keying In,* a publication of the National Business Education Association, the director was quoted in an article about curriculum development and the search for standards. This was a direct result of a conversation based on an article she wrote which was published in the *Journal of Business Education.*

In June a general informational brochure about Tech Prep was developed with the assistance of Kim Eslinger, professional commercial artist.

The director also was interviewed by Wayne Jundt for the radio spots called Voc Ed on the Air.

Project visibility and collaboration have been maintained through the director's position on the management team of the competency-based education project headed by Ron Mehrer of the State Board for Vocational and Technical Education. In addition, the director has developed and maintained close contact with the ND ACTS project, a cooperative education project of the two-year colleges with North Dakota State University, University of North Dakota, and Mayville State University. She also serves on the advisory committee for the

TOPS program headed by Gaylene Massey at the State Industrial School. She maintains business contact through her membership in Zonta. Professional memberships include National Tech Prep Network, Association for Supervision and Curriculum Development, American Vocational Association, ND Vocational Association, National Business Education Association, ND Business and Office Education Association, National Education Association, ND Education Association, and Phi Delta Kappa. She currently chairs the local chapter of PDK.

Objective 16: Establish adult Tech Prep programs on each postsecondary campus for students who did not complete the secondary Tech Prep program

Many Tech Prep programs across the nation have developed a "bridge" curriculum as a means of providing adults entering college technical programs with skills and knowledge typically taught in the high school. Throughout fiscal year 1992-93, the Tech Prep project director worked with a curriculum committee composed of coordinators of single parent and displaced homemaker programs from across the state to develop such a program for North Dakota. The result is the Phoenix project which was piloted at Bismarck State College beginning in September 1993. This curriculum is valuable to Tech Prep because it looks at student assessment of career interest and competence, then at academic and technical skills required to successfully complete a technical program and enter a technical occupation.

Objective 17: Establish a Tech Prep Leadership Academy

Throughout this final year of the pilot project, all activities have been offered for undergraduate or graduate credit, evidence that the University of North Dakota and North Dakota State University are interested in educational change endeavors, notably Tech Prep.

The workshops conducted by Career Solutions Training Group have moved the thrust of many activities to the local level where change must be systematized. As we complete the final year of our pilot project, it remains essential to push for change that will continue regardless of legislation and funding. Translated this means that change must occur in the classrooms of North Dakota's educational institutions.

The Tech Prep offices will be moved to the Capitol July 1 at the conclusion of the pilot phase of Tech Prep in North Dakota.

TECH PREP HIGH SCHOOL PARTNERS

Larger B	Smaller B	A
New Town (177)	Solen (66)	Devils Lake[2] (661)
Lakota (106)	Dakota (56)	Fargo (2959)
Oakes[1] (199)	Milnor[1] (68)	Minot (2172)
Sar. Cent.[1] (138)	N. Sargent[1] (70)	Bismarck (3238)
Cando[2] (113)	Verona[1] (20)	Grand Forks[4] (2619)
Langdon[2] (216)	Bisbee[2] (48)	Jamestown (979)
New Rockford[2] (136)	Border Central[2] (19)	Belcourt (557)
Watford City (220)	Edmore[2] (58)	Valley City[6] (471)
Hettinger (155)	Leeds[2] (84)	
Bowman (169)	Maddock[2] (73)	
Beulah[3] (302)	Midkota[2] (75)	
Hazen[3] (278)	McVille[2] (73)	
Center[3] (146)	Minnewaukan[2] (61)	
Ft. Totten (125)	Munich[2] (66)	
Thompson[4] (140)	Rock Lake[2] (31)	
Park River[5] (164)	Starkweather[2] (42)	
Grafton[5] (367)	Sheyenne[2] (48)	
	Tolna[2] (57)	
	Golden Valley[3] (52)	
	Stanton[3] (50)	
	Drake (42)	
	Kensal (33)	
	Buxton[4] (114)	
	Hoople[5] (60)	
	Inkster[5] (93)	
	Rogers[6] (74)	
	Oriska[6] (30)	
	Tower City[6] (72)	
Schools 17 (32%)	Schools 28 (53%)	Schools 8 (15%)
Students 3,151 (17%)	Students 1,635 (9%)	Students 13,656 (74%)

Total Schools 53
Total Students 18,442

[1]Southeast Restructuring Unit
[2]Lake Area Perkins Consortium
[3]Oliver-Mercer Consortium
[4]Grand Forks-Thompson Perkins Consortium
[5]North Valley Area Vocational and Technology Center
[6]Valley City Area Vocational and Technology Center

XI. INTEGRATING APPLIED ACADEMICS

The State Board for Vocational and Technical Education has selected Applied Communication, Applied Bio/Chemistry and Applied Math as programs to be integrated into existing vocational education programs. The following describes the accomplishment in these three programs.

APPLIED COMMUNICATIONS

No specific data is collected on the number of students; however, if all programs are integrating the applied academics as required, the number of students receiving this instruction should equal the total enrollment in vocational-technical education programs.

The majority of in-service activities are now conducted at the request of individual school districts or vocational consortiums. One workshop on Applied Communication was conducted during PY 94.

In home economics a team of instructors developed a new reporting form to facilitate collection of information on which applied academics concepts are being integrated into each home economics class.

The instructor in-service in Applied Communication (and probably the other applied academics, as well) includes discussion on implications for students identified as having special learning needs.

No specific data is collected from all schools on team teaching and developing curriculum. Integration of applied academics is one topic which may be discussed during a technical assistance visit and, if so, will be documented on the Supervisory Report form.

APPLIED MATH

The implementation of the Carl Perkins Act and the development of area consortiums has provided an excellent avenue for the integration of applied academics into curriculums for North Dakota vocational education students. Funding has been provided for equipment and in-service activities for vocational teachers. To date 36 workshops have been held with 640 teachers participating.

Curriculum activities in all service areas have addressed the inclusion of applied math into new or existing curriculum. Some curriculum committees have listed

the CORD Units that should be taught with every service area unit. Students in all programs areas are participating in curriculum where applied academics are taught.

The State Board for Vocational and Technical Education has also invested in the Applied Math II series and provided in-service opportunities for two teachers to participate in national activities. These two teachers represent secondary and postsecondary teachers in the state and will coordinate in-service activities for teachers in the state. Plans are to offer educational opportunities for teachers to become acquainted with Applied Math II.

The state-wide curriculum committee is also supporting the effort of applied math by providing continued support for the applied math in-service activities that will continue around the state. Major emphasis of one project is to insure integration by providing special in-service addressing that very issue.

The SBVTE has adopted a Standard of Quality to assist schools and colleges to provide quality vocational education programs and services. The curriculum section of the standard supports the integration of applied academics and provides an evaluation procedure to verify the standard. A measure of success is addressed in the Quality of Performance section which deals with learner outcomes.

APPLIED BIOLOGY/CHEMISTRY

The Applied Biology and Chemistry (ABC) in-services began July 1, 1994 and ended June 30, 1994. During July three ABC workshops were held at Hillsboro High School and Bismarck High School. In September a two-day workshop was given by two Bismarck Public School instructors for Bismarck Public Schools teachers. A third workshop was held in Tioga serving the Northwest Consortium.

Forty instructors participated in the three workshops in PY 94 bringing to a total 159 participants since the project began.

PRINCIPLES OF TECHNOLOGY

The number of applied physics courses, Principles of Technology, remained relatively static for PY 94. Despite the evidence that this course is a critical component for students entering careers in the technical fields, the availability of the course to students lags behind the obvious need.

Efforts by the State Board for Vocational and Technical Education to provide financial incentives to promote the expansion of the program to more schools has done little to foster its implementation. Perhaps one of the major factors in the slow growth of the program is the tight money situations facing a large percentage of North Dakota schools. Start-up costs to establish the program at this time of financial stress is a real deterrent to its implementation. Other factors include availability of space in class schedules, lack of science credit, and reluctance on the part of vocational instructors due to a perceived lack of background in math and science.

The majority of students enrolled in the Principles of Technology course are sophomores with a small percentage of freshmen. Response to the course by students is positive, but the lack of a science credit is questioned. Instructors are generally positive with regard to the course because it is well organized and excellent instructional resources are available.

A continuing effort will be made to promote the course, and in-service workshops will be conducted if sufficient interest is shown. The possibility of establishing Principles of Technology within the high tech coops will be investigated.

XII. CAREER GUIDANCE AND COUNSELING

1. FOCUS ON THE GUIDANCE PROGRAM

Guidance and counseling is not a state mandated program in North Dakota. The focus of the vocational guidance program is to assist public secondary and postsecondary institutions in supporting vocational technical programs. Because North Dakota is a very rural state, student populations will support vocational guidance programs only if schools cooperatively join in establishing a program. The ideal counselor-student ratio is 350 to 1 and this is the goal of each program. It is also the goal of each vocational guidance program to be operated by a masters degree level, state certified, professionally trained guidance counselor. Personnel requirements are set by state law and enforced by the North Dakota Department of Public Instruction and the North Dakota State Board for Vocational and Technical Education.

The major mission of each vocational guidance program is to provide career and educational guidance services to the schools and communities they serve. Each vocational guidance program contains the following components:

1. A career guidance testing program that contains both aptitude and interest testing components.

2. Up-to-date occupational and educational information and materials.

3. Assistance to students and parents in applying for various postsecondary financial aid programs. This includes federal, state, local financial aid programs and includes scholarship assistance.

4. Counsel students with their personal, social, educational and vocational concerns that will assist their entrance into their occupational endeavors.

5. Promote career education and career education activities in local schools at all educational levels.

6. Assist the staff of each participating school with students who have special needs. Provide career guidance and counseling services to each special needs student.

7. Provide career guidance and counseling services to potential dropouts, former students and unemployed/underemployed adults in the local communities served by vocational counselors.

8. Provide assistance to students having academic problems.

9. Provide follow-up studies of past graduates.

10. Assist students in orientation, class/course selection, and registration for classes that will best assist each student in reaching their career goals.

11. Assist students with their postsecondary plans. Assist students in choosing a program of study that will help them meet their occupational goals.

12. Help students explore the world of work through many varied methods including Career Days, Job Shadowing and Co-op work experience.

13. Serve as a consultant to teachers, administrators, parents and appropriate referral agencies.

14. Provide public relations activities to make the public aware of the vocational guidance program and vocational technical education employment opportunities.

15. Supplement career guidance activities with individuals from business/industry, military, postsecondary institutions.

16. Establish and actively use a vocational guidance advisory committee.

17. Establish local program goals and objectives. Be accountable for these through the use of a written Management By Objectives and quarterly reports. Each school administrator and the state supervisor is to receive copies of these.

18. Upgrade and maintain professional skills and abilities through active in-service involvement.

19. To help students explore the various career opportunities and aid them in their career-decision making.

20. Promote sex-equity through the area guidance program and in vocational education planning. Emphasize the opportunities available for those who make non-traditional occupational choices.

21. Keep students abreast of guidance activities and the area counselors scheduled time to visit each school.

2. SOURCES OF LEGISLATIVE FUNDS

The funding of vocational guidance programs comes from a combination of 3 sources: state - $398,353; federal - $276,718; local - $933,738; for a total of $1,608,809 in total funds allocated for these projects.

3. FUNDING MECHANISMS USED

All LEA's interested in state funding of projects must have as part of the total state program cost, a 55 percent match of local funds. There is no requirement for a match to the federal portion of the funding, however, a number of sites do provide local funds to supplement the federal funds.

4. TYPES OF ACTIVITIES FUNDED

During PY 94 a total of 133 secondary schools and 21,443 secondary students were part of the program. In addition, four postsecondary institutions and 2,665 students were part of the program. A program also exists at the State Penitentiary and State Farm. Five-hundred (500) incarcerated inmates were impacted by that vocational guidance program. Computer assisted guidance activities were again an important program activity in nearly all vocational guidance programs.

The vocational film library was again enhanced and updated. This resource is used by vocational education instructors to enhance the quality of their instruction. Sixteen additional videotapes were added to the vocational film library during PY 94.

Personnel development was carried out three times during the year:

- -- All-Service Vocational and Technical Education Conference, (Warren Wolff - Today's youth and Tomorrow's Careers)
- -- Two Improved Career Decision Making (ICDM) workshops
- -- One workshop on The National Career Guidance Guidelines Implementation was completed.

5. DURING PY 94 THE FOLLOWING CLIENT COUNSELING CONSULTATIONS WERE HELD AS SELF-REPORTED BY VOCATIONAL COUNSELORS

--	Education Problems	13,043
--	Vocational Problems and Plans	23,640
--	Personal/Social Problems	7,716

--	Teacher Conferences (Program)	3,695
--	Teacher Conferences (pupils)	4,996
--	Other Pupil Personnel Workers	5,826
--	Referral Agencies	3,074
--	Parent Meetings	1,466
--	Group Meetings	3,613
--	Pupils Tested	24,341
--	Interviews with Graduates	1,254
--	Interviews with Dropouts	442
--	Interview with Adults	1,087
--	Visits to Colleges & Industries	1,364
--	Meetings	3,113
--	Other	3,014

6. PROGRAM EVALUATION

Vocational guidance follows the same evaluation procedure established for all vocational education programs in North Dakota. Each vocational guidance program receives a program supervisory visitation each year. In addition 20 percent of all vocational programs receive formal team evaluations each year. In addition each LEA is responsible to complete two local administrative evaluations each year.

7. PROGRAM EFFECTIVENESS

Program effectiveness for vocational guidance is very difficult to measure because of the very personal nature of the counseling relationship between client and counselor. However, the following information is known about our students and the public schools.

1. North Dakota students have a very high completions rate and a very low drop out rate.

2. A very high proportion of our high school graduates go on to postsecondary education. Over seventy percent of North Dakota's graduates attend some form of postsecondary training upon graduation.

3. Local support for vocational guidance programs is very strong. In PY 94 a number of programs enhanced their guidance staffing patterns and services to students because of Carl Perkins funds.

4. There is wide spread support throughout state agencies for career guidance. The approval of North Dakota as the developer of the National Career Guidance Standards has increased that support. Seven North Dakota government agencies: Vocational and Technical Education, Public Instruction, Higher Education, Economic Development, Vocational Rehabilitation, Job Service, Governor's Employment and Training Forum provide leadership for that support.

5. The Children At Risk Task Force, a specific North Dakota group established by the Governor, highlights the need for the expansion of guidance and counseling in our state's schools.

6. North Dakota counselors are actively involved in the Tech Prep process and the School-to-Work Act. Vocational guidance supports these systems and sees an important role for the professional counselor.

APPENDIX A

VOCATIONAL-TECHNICAL EDUCATION

STANDARDS OF QUALITY

NORTH DAKOTA

VOCATIONAL - TECHNICAL EDUCATION

THE CYCLE OF CONTINUOUS IMPROVEMENT

North Dakota State Board for Vocational and Technical Education
State Capitol Building - 15th Floor
Bismarck, North Dakota 58505

February 1994

NORTH DAKOTA STATE BOARD FOR VOCATIONAL AND TECHNICAL EDUCATION

It is the policy of the North Dakota State Board for Vocational and Technical Education not to discriminate in its educational programs, activities, or employment policies as required by Final Regulation implementing Title IX of the 1972 Education Amendments, Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973.

The Board policy does not advocate, permit, nor practice discrimination on the basis of sex, race, color, national origin, religion, age, or disability as required by various state and federal laws. Equal education opportunity is a priority of the North Dakota State Board for Vocational and Technical Education.

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NORTH DAKOTA
COMMITTEE OF PRACTITIONERS

REPRESENTING PARENTS

Dave Helbling . . . . . Mandan
Sue Hitchcock . . . . . Bismarck

REPRESENTING STUDENTS

Dee Janzen . . . . . Bismarck
Chad Rotenberger . . . . . Bismarck

REPRESENTING HIGHER EDUCATION

Dr. Ellen Chaffee . . . . . Bismarck
Clarke Marion . . . . . Belcourt
Ken Quamme . . . . . Williston

REPRESENTING SCHOOL ADMINISTRATORS

Darryl Frederick . . . . . Turtle Lake
Eddie Poehls . . . . . Tolna
Dan Rood, Jr. . . . . Wahpeton

REPRESENTING TEACHERS

LaDonna Elhardt . . . . . Minot
Donna Fricke . . . . . Bismarck
Sue Myxter . . . . . Fargo

REPRESENTING LOCAL SCHOOL BOARDS

Nancy Johnson . . . . . Dickinson
Oris Seilstad . . . . . Forest River

ACKNOWLEDGEMENTS

The Standards of Quality in Vocational-Technical Education in North Dakota were designed to assist schools and colleges in developing and maintaining excellence in programs that serve teens and adults.

Through the efforts of the following people, the Standards of Quality have become a reality. Special thanks is given to them for their many hours of reviewing information, writing, editing, analyzing and compromising. Without their continued support, this project could not have been completed.

Standards of Quality Committee Members

Vicki Neuharth, Assistant Supervisor, Vocational Home Economics
North Dakota State Board for Vocational and Technical Education
Chairperson

Dr. Larry Barnhardt, Past Executive Director
North Dakota Council on Vocational Education

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North Dakota State Board for Vocational and Technical Education

Nancy Thorndal, Past Administrator, Educational Equity
North Dakota State Board for Vocational and Technical Education

Doug Vannurden, Assistant Supervisor, Agriculture Education
North Dakota State Board for Vocational and Technical Education

A special note of appreciation is given to Ernest Breznay, Deputy State Director, North Dakota State Board for Vocational and Technical Education, for serving as an advisor to the committee in the completion of this project.

STANDARDS OF QUALITY VOCATIONAL-TECHNICAL EDUCATION

It is the goal of the North Dakota State Board for Vocational and Technical Education to support, by allocating state and federal funds, quality vocational-technical education for all secondary, postsecondary, and adult students who need, want, and can benefit from instructional programs.

The Standards of Quality, outlined in this document, are designed to assist schools and colleges to provide quality vocational-technical education programs and services. The Standards of Quality include: (1) quality of design/redesign*, (2) quality of performance*, and (3) quality of conformance*—which are a cycle of continuous improvement.

THE CYCLE OF CONTINUOUS IMPROVEMENT

1.0 QUALITY OF DESIGN/REDESIGN

Quality of design begins with assessment, planning, and design of the learning environment. Vocational-technical education should be designed/redesigned, resulting in a full range of programs and services of sufficient size, scope, and quality. Appropriate and sequential courses of study will promote academic and occupational competence for every student.

2.0 QUALITY OF PERFORMANCE

Quality of performance is a determination of the actual performance of the students in the classroom and in the workplace. The school or college shall annually evaluate, using follow-up studies and other analysis techniques, the effectiveness of its programs based on selected student performance outcomes.

3.0 QUALITY OF CONFORMANCE

Quality of conformance is a determination of how well the school or college meets or exceeds the elements of "1.0 Quality of Design/Redesign" and "2.0 Quality of Performance."

*The three categories of Quality of Design/Redesign, Quality of Performance, and Quality of Conformance come from W. Edward Deming's principles of Total Quality Management. The source of this information is The Deming Guide to Quality and Competitive Position, by Howard S. Gitlow and Shelly J. Gitlow, Prentice-Hall, Inc., 1987.

1.0 QUALITY OF DESIGN/REDESIGN

STANDARD 1.1 — MISSION/PHILOSOPHY STATEMENTS
The school or college shall include a rationale for and the role of vocational-technical education programs in its mission/philosophy statements.

STANDARD 1.2 — NEEDS ASSESSMENT
The school or college shall conduct and utilize a needs assessment to design/redesign its vocational-technical education programs and services.

STANDARD 1.3 — COOPERATIVE PLANNING
The school or college shall coordinate its local planning with area schools and colleges, community organizations, industry/economic development efforts, and other providers of education and training for employment.

STANDARD 1.4 — EDUCATIONAL EQUALITY
The school or college shall ensure equal access and treatment for all students regardless of race, color, religion, national origin, sex, age, handicapping condition, or other legally protected classification.

STANDARD 1.5 — CLASS SIZE AND PROGRAM SCOPE
The school or college shall meet State Board for Vocational and Technical Education policies on class size and minimum offerings for program approval.

STANDARD 1.6 — ADVISORY COMMITTEES
The school or college shall establish and utilize program advisory committees.

STANDARD 1.7 — LOCAL ADMINISTRATION
The school or college shall assign a person to administer vocational-technical education programs and services and the administrator shall continue to participate in professional growth experiences.

STANDARD 1.8 — PROFESSIONAL STAFFING
The school or college shall assure all vocational-technical education personnel hold a valid and appropriate professional certificate or credential and the staff continue to participate in professional growth experiences.

STANDARD 1.9 — CAREER DEVELOPMENT
The school or college shall provide a comprehensive career development program.

STANDARD 1.10 — CURRICULUM AND INSTRUCTION

The school's or college's vocational-technical education programs shall contribute to a person's academic knowledge, reasoning, problem-solving, work attitudes, general employability skills, and occupationally specific skills necessary for economic independence as a productive and contributing member of society.

STANDARD 1.11 — SUPPLEMENTARY SERVICES

The school or college shall provide students of special population groups the necessary supplemental and supportive services required for successful completion of the vocational-technical education program of study.

2.0 QUALITY OF PERFORMANCE

MEASURE 2.1 — LEARNER OUTCOMES

Student progress in competency attainment of academic skills and occupational-technical skills shall be measured.

MEASURE 2.2 — EDUCATION/EMPLOYMENT OUTCOMES

The occupational and/or educational placement of completers of occupational programs shall be measured.

3.0 QUALITY OF CONFORMANCE

3.1 — NEEDS ASSESSMENT

The school or college shall conduct and utilize a needs assessment to design/redesign its vocational-technical education program and services.

3.2 — PROGRAM EVALUATION

The school or college shall be evaluated for the effectiveness in meeting the quality of design/redesign. This evaluation will be conducted by the State Board for Vocational and Technical Education in conjunction with the school's or college's self-evaluation, regularly scheduled evaluation by the North Central Association of Colleges and Schools, State School Improvement Process (associated with the Department of Public Instruction), or through individual supervisory evaluations.

3.3 — PROGRAM IMPROVEMENT PLAN

The school or college shall periodically review its quality of conformance and quality of performance and, if not making substantial progress in meeting these standards, shall develop a program improvement plan.

1.0 QUALITY OF DESIGN/REDESIGN

STANDARD 1.1 MISSION/PHILOSOPHY STATEMENTS

The school or college shall include a rationale for and the role of vocational-technical education programs in its mission/philosophy statements. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.1

Mission/philosophy statements:

1.1.1	— Include goals to provide programs which impart knowledge and develop skills necessary for employment, further education and training, or entrepreneurship.	☐ yes ☐no
1.1.2	— Are reviewed and revised by faculty, administration, advisory committees, students, and industry representatives according to a systematic review/revision plan.	☐ yes ☐no
1.1.3	— Are consistent with the philosophy and objectives of North Dakota vocational-technical education approved by the North Dakota State Board for Vocational and Technical Education.	☐ yes ☐no

COMMENTS/RECOMMENDATIONS — STANDARD 1.1

STANDARD 1.2 NEEDS ASSESSMENT

The school or college shall conduct and utilize a needs assessment to design/redesign its vocational-technical education programs and services. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.2

Needs assessment:

1.2.1 — Design activities include:	
a. Program objectives consistent with objectives of the State Board for Vocational and Technical Education for each service area.	☐ yes ☐ no
b. Description of facilities.	☐ yes ☐ no
c. Needs of community, business and industry, school, and students included in the program design.	☐ yes ☐ no
d. State/regional labor market analysis for occupational programs.	☐ yes ☐ no
e. Plans for serving students in other schools/colleges (cooperative arrangements, consortiums, shared instructors).	☐ yes ☐ no
f. Provision for certifiable staffing.	☐ yes ☐ no
g. Approvable curriculum and instruction.	☐ yes ☐ no
h. Program articulation.	☐ yes ☐ no
i. Plans for continued program funding.	☐ yes ☐ no
1.2.2 — Redesign activities are based on:	
a. Review of design components of 1.2.1.	☐ yes ☐ no
b. Results of program evaluations including North Central Association, State School Improvement Process, State Board for Vocational and Technical Education team and individual evaluations, and self-evaluations.	☐ yes ☐ no
c. Results of student performance evaluations.	☐ yes ☐ no
d. Analysis of assessments of students' needs, achievements, interests, and abilities.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.2

STANDARD 1.3 COOPERATIVE PLANNING

The school or college shall coordinate its local planning with area schools and colleges, community/government organizations, industry/economic development efforts, and other providers of education and training for employment. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.3

Cooperative planning includes documentation of:

1.3.1	— A written vocational-technical program articulation plan with other schools and/or colleges.	☐ yes ☐ no
1.3.2	— Community/government organizations involved in vocational-technical program planning and economic development efforts.	☐ yes ☐ no
1.3.3	— Other providers of education and training (e.g., industry sponsored training, private business sponsored training, etc.).	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.3

STANDARD 1.4 EDUCATIONAL EQUALITY

The school or college shall ensure equal access and treatment for all students regardless of race, color, religion, national origin, sex, age, handicapping condition, or other legally protected classification. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.4

The school or college has:

1.4.1	— Complied with all Title IX requirements for an educational institution *	☐ yes ☐ no
1.4.2	— Established a program of nontraditional recruitment based on a review of course offerings.	☐ yes ☐ no
1.4.3	— A facility "access/transition" plan which is filed with the State Board for Vocational and Technical Education.	☐ yes ☐ no
1.4.4	— Agreements with employers which contain a written statement of nondiscrimination.	☐ yes ☐ no
1.4.5	— Supported in-service programs for faculty as they make the transition to nontraditional classrooms.	☐ yes ☐ no
1.4.6	— An educational equity plan.	☐ yes ☐ no

* See Appendix A

COMMENTS/RECOMMENDATIONS — STANDARD 1.4

STANDARD 1.5 CLASS SIZE AND PROGRAM SCOPE

The school or college shall meet State Board for Vocational and Technical Education policies on class size and minimum offerings for program approval. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.5

The school or college meets State Board for Vocational and Technical Education policies regarding:

1.5.1	— Class size meets State Board for Vocational and Technical Education policies for program approval.	☐ yes ☐ no
1.5.2	— Offerings meet State Board for Vocational and Technical Education policies for program approval.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.5

STANDARD 1.6 ADVISORY COMMITTEES

The school or college shall establish and utilize program advisory committees. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.6

Advisory committees:

1.6.1	— Have been established for each vocational-technical education program area in the school/college.	☐ yes ☐ no
1.6.2	— Meet two or more times annually and maintain records of each meeting.	☐ yes ☐ no
1.6.3	— Include five or more non-educators (e.g., parents, employers, employees, and other community or industry representatives) representing the occupational area(s) served by the vocational-technical education program.	☐ yes ☐ no
1.6.4	— Include gender and special population representation.	☐ yes ☐ no
1.6.5	— Provide advice and recommendations to programs on current job availability.	☐ yes ☐ no
1.6.6	— Provide advice and recommendations to programs on the relevance of curriculum content.	☐ yes ☐ no
1.6.7	— Recommendations are utilized in program planning. Advisory committee recommendations are submitted to: _____.	☐ yes ☐ no
1.6.8	— Are organized under the suggested outline of the *North Dakota VIP Advisory Committee Leadership Guide*.	☐ yes ☐ no
1.6.9	— Conduct a program of work based on assessed needs of the program and the requirements of the community it serves.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.6

_____

_____

_____

_____

STANDARD 1.7 LOCAL ADMINISTRATION

The school or college shall assign a person to administer vocational-technical programs and services and the administrator shall continue to participate in professional growth experiences. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.7

Local administration:

1.7.1	— The school or college designates a person who is responsible for the administration of vocational-technical education.	☐ yes ☐ no
1.7.2	— The school or college provides a specific amount of assigned time to devote to the administration of vocational-technical education, to include:	
	a. Scheduling and holding a minimum of three staff meetings with vocational-technical education instructors.	☐ yes ☐ no
	b. Soliciting and utilizing vocational-technical education teacher and staff input in operational decisions affecting them.	☐ yes ☐ no
	c. Evaluating vocational-technical education programs and curriculum.	☐ yes ☐ no
	d. Monitoring the safety standards and practices in the school's or college's training programs.	☐ yes ☐ no
	e. Maintaining enrollment limits that are within any established guidelines for each training program.	☐ yes ☐ no
	f. Providing for in-service and/or upgrade training in accordance with identified needs.	☐ yes ☐ no
	g. Providing avenues for vocational-technical education teachers and staff to keep updated on new technologies and to integrate those into the vocational-technical instruction.	☐ yes ☐ no
	h. Providing support for the training program by providing quality, up-to-date equipment and supplies.	☐ yes ☐ no
	i. Ensuring that each training program utilizes advisory committee input in program planning.	☐ yes ☐ no
	j. Serving as the liaison between the school or college and all appropriate government agencies.	☐ yes ☐ no
1.7.3	— The local vocational-technical education administrator holds the appropriate administrative certificate and/or credential which meets or exceeds the requirements of the North Dakota State Board for Vocational and Technical Education.	☐ yes ☐ no
1.7.4	— The local vocational-technical education administrator continues his/her professional growth (e.g., through college credit courses, professional improvement activities, workshops, all-service conference, and other sources of in-service training).	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.7

STANDARD 1.8 PROFESSIONAL STAFFING

The school or college shall assure all vocational-technical education personnel hold a valid and appropriate professional certificate or credential and the staff continue to participate in professional growth experiences. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.8

The vocational-technical education personnel:

1.8.1	— Hold the appropriate teaching certificates and/or credentials which meet or exceed the requirements of the North Dakota State Board for Vocational and Technical Education.	☐ yes ☐ no
1.8.2	— Have up-to-date personnel development plans on file with the local vocational-technical education administration and continue their professional and technological growth. Examples include college credit courses, professional improvement activities, attendance at workshops, attendance at the all-service conference, and other sources of in-service training.	☐ yes ☐ no
1.8.3	— Are provided an extended contract. Personnel under extended contract are responsible for: a. Supervising students' occupational experience programs. b. Developing curriculum. c. Maintaining the laboratory. d. Coordinating student organization activities. e. Attending all-service conference. f. Other: _____	☐ yes ☐ no ☐ yes ☐ no ☐ yes ☐ no ☐ yes ☐ no ☐ yes ☐ no ☐ yes ☐ no ☐ yes ☐ no
1.8.4	— Assure that all administrators, counselors, and other instructional personnel are familiar with the goals, objectives, activities, prerequisites, etc., of the vocational-technical education programs.	☐ yes ☐ no
1.8.5	— Maintain membership(s) in educational/occupational/ professional organizations.	☐ yes ☐ no
1.8.6	— Monitor the needs of community, business, and industry relevant to the vocational-technical education programs.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.8

STANDARD 1.9 CAREER DEVELOPMENT

The school or college shall provide a comprehensive career development program. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.9

Career development includes:

1.9.1	— Coordination by a guidance counselor credentialed by the Department of Public Instruction and/or the State Board for Vocational and Technical Education.	☐ yes ☐ no
1.9.2	— Students meeting at least once a year with the guidance counselor/postsecondary advisor for purposes of developing written individualized education/career plans.	☐ yes ☐ no
1.9.3	— Students having a sequential program of study which is based on the individual education/career plans.	☐ yes ☐ no
1.9.4	— Integration throughout the curriculum of competencies stated in the *National Career Development Guidelines*.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.9

STANDARD 1.10 CURRICULUM AND INSTRUCTION

The school's or college's vocational-technical education programs shall contribute to a person's academic knowledge, reasoning, problem-solving, work attitudes, general employability skills, and occupationally specific skills necessary for economic independence as a productive and contributing member of society. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.10

Curriculum and instruction:

1.10.1 — Incorporates a competency based instructional delivery system.	☐ yes ☐ no
1.10.2 — Is based on a validated set of competencies, identified by employers and employees representative of the occupation being taught, which is revalidated/updated annually.	☐ yes ☐ no
1.10.3 — Is appropriate to the assessed needs, achievements, interests, and aptitudes of enrolled students and, if necessary, is modified and/or adapted to meet the individual needs of those students.	☐ yes ☐ no
1.10.4 — Includes provisions for application of knowledge and skills in workplace settings, through some form of work experience program.	☐ yes ☐ no
1.10.5 — Includes structured educational experiences in each program which provide an opportunity to explore career options.	☐ yes ☐ no
1.10.6 — Integrates and/or reinforces related basic and advanced academic skills, including mathematics, science, technology, and communications skills.	☐ yes ☐ no
1.10.7 — Integrates workplace basics skills.	☐ yes ☐ no
1.10.8 — Includes access to modern technology, equipment, and supplies used in the occupations for which training is being provided.	☐ yes ☐ no
1.10.9 — Includes vocational student organizations as an integral component.	☐ yes ☐ no
1.10.10 — Is conducted in approvable facilities for the service area.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.10

STANDARD 1.11 SUPPLEMENTARY SERVICES

The school or college shall provide students of special population groups the necessary supplemental and supportive services required for successful completion of the vocational-technical education program of study. **Do you feel your program:**

☐ **Meets Standard** ☐ **Does Not Meet Standard**

QUALITY INDICATORS FOR STANDARD 1.11

Supplementary services include:

1.11.1 — A special population program coordinated by personnel certified by the Department of Public Instruction and/or the State Board for Vocational and Technical Education.	☐ yes ☐ no
1.11.2 — Assessment of the needs of each student participating in vocational-technical education programs.	☐ yes ☐ no
1.11.3 — Information to students and parents of students, who are members of special populations, concerning:	
a. Opportunities available in vocational-technical education.	☐ yes ☐ no
b. Requirements for eligibility for enrollment in such vocational-technical education programs.	☐ yes ☐ no
c. Specific courses available.	☐ yes ☐ no
d. Special services available.	☐ yes ☐ no
e. Employment opportunities.	☐ yes ☐ no
f. Placement.	☐ yes ☐ no
1.11.4 — An Individual Vocational Education Plan (IVEP) for each special population student enrolled in a vocational-technical education program who needs supplementary services to succeed. These services may include curriculum modification, equipment modification, classroom modification, supportive personnel, and instructional aids and devices.	☐ yes ☐ no
1.11.5 — Counseling and instructional services designed to facilitate the transition from school to work or further education.	☐ yes ☐ no

COMMENTS/RECOMMENDATIONS — STANDARD 1.11

2.0 QUALITY OF PERFORMANCE

MEASURE 2.1 LEARNER OUTCOMES

Student progress in competency attainment of academic skills and occupational-technical skills shall be measured.

2.1.1 (for secondary)
The 11th-grade Comprehensive Test of Basic Skills (CTBS) statewide testing system scores of 12th graders enrolled in vocational-technical education will be compared to their 8th-grade CTBS scores. The minimum standard for this measure is a gain of .1 normal curve equivalent.

WORKSHEET FOR MEASURE 2.1.1

+	Include only 12th-grade students enrolled in vocational-technical education on February 1 of the current school year.
+	Include only 12th-grade students that have both 8th-grade and 11th-grade CTBS scores.
+	Include only students who have completed at least 3 semesters of vocational-technical education prior to February 1.

a. Total number of 12th-grade students meeting above criteria _____
b. Average 11th-grade normal curve equivalents--total battery score _____
c. Average 8th-grade normal curve equivalents--total battery score _____
d. Average difference (b minus c = gain) _____

2.1.2 (for secondary and postsecondary)

Program completers must demonstrate attainment of the competencies/tasks identified for that program. The minimum standard for this measure is 80 percent of the program completers attaining at least 80 percent of the program competencies/tasks. The student's program may be modified through an Individual Vocational Education Plan (IVEP).

WORKSHEET FOR MEASURE 2.1.2

Program Area *	A Number of Completers	B Number Attaining at Least 80% of the Competencies	(B ÷ A) Percent

* Does not apply to Consumer Homemaking and Technology Education (Industrial Arts)

MEASURE 2.2 EDUCATION/EMPLOYMENT OUTCOMES

Occupational and/or educational placement of occupational program completers shall be measured.

2.2.1 **(for secondary)**
A secondary occupational program shall maintain at least 75 percent positive placement[1] based on a six-month follow-up of program completers from the previous year.

WORKSHEET FOR MEASURE 2.2.1

Program Area *	A Number of Completers	B Number Having Positive Placement	(B ÷ A) Percent

* Does not apply to Consumer Homemaking and Technology Education (Industrial Arts)

[1] Secondary positive placement includes military placement, employment related to training, apprenticeship, additional high school education in a vocational-technical education program, additional high school education, college education in a related vocational field, and/or additional college education.

2.2.2 **(for postsecondary)**
A postsecondary occupational program shall maintain at least 75 percent positive placement[2] based on a six-month follow-up of program completers from the previous year.

WORKSHEET FOR MEASURE 2.2.2

Program Area	A Number of Completers	B Number Having Positive Placement	(B ÷ A) Percent

[2] Postsecondary positive placement includes military placement, employment related to training, apprenticeship, additional college education in a vocational-technical education program, and/or continuing college education in a related occupational field.

2.2.3 (for secondary and postsecondary)
At least 90 percent of the total completers on the follow-up report are reported in categories other than status unknown.

WORKSHEET FOR MEASURE 2.2.3

A.	Total number of completers	_____
B.	Total number reported in all categories except status unknown	_____
C.	Percent status known (B ÷ A = percent)	_____

3.0 QUALITY OF CONFORMANCE

3.1 NEEDS ASSESSMENT

The school or college shall conduct and utilize a needs assessment to design/redesign its vocational-technical education program and services.

3.2 PROGRAM EVALUATION

The school or college shall be evaluated annually for the effectiveness in meeting the quality of design/redesign. This evaluation will be conducted by the State Board for Vocational and Technical Education in conjunction with the school's or college's self-evaluation, regularly scheduled evaluation by the North Central Association of Colleges and Schools, State School Improvement Process (associated with the Department of Public Instruction), or through individual supervisory evaluations.

3.3 PROGRAM IMPROVEMENT PLAN

The school or college shall annually review its quality of conformance and quality of performance and, if not making substantial progress in meeting these standards, shall develop a program improvement plan.

APPENDIX

COMPLYING WITH TITLE IX

The Office for Civil Rights suggests the following components for an effective compliance program for Title IX for any educational institution receiving federal financial assistance:

1. Initiate self-evaluation in relation to Title IX requirements.

2. Designate an employee as the person responsible and publish and provide notification to students, employees, and persons applying for admission of that person's name, title, address, and telephone number.

3. Adopt and publish grievance procedures providing for prompt and equitable resolution of student and employee complaints which allege any action which would be prohibited by Title IX.

4. Disseminate the institution's policy regarding equal educational opportunity/non-discrimination on the basis of sex.

5. Review admissions/application procedures and materials to eliminate discriminatory questions from required forms.

6. Review publications or promotional materials and eliminate pictures or language which promote sex stereotypes.

7. Review policies and procedures to ensure that, on the basis of sex, they do not:

    a. Treat one person differently from another in determining whether she or he satisfies requirements with respect to course requirements.
    b. Provide different benefits or services or apply different rules.
    c. Deny benefits or services.
    d. Apply separate or different rules of behavior, sanctions, or treatment.
    e. Impact students or employees indirectly through assistance.

8. Examine access to course offerings.

9. Review testing procedures, materials, and interpretations to ensure that they do not discriminate (on the basis of sex).

10. Examine counseling materials and establish and use internal procedures to ensure that they do not discriminate (on the basis of sex).

11. Where tests or counseling result in substantially disproportionate enrollment, ensure that the disproportion does not result from discrimination in test instruments, from interpretation of test results, or from other counseling practices.

12. Adopt a sexual harassment policy.

GLOSSARY

Advisory committee	A committee made up of mostly private-sector members who usually serve a specific vocational-technical education program or service at the secondary, postsecondary, or adult level to advise, assist, and provide support and advocacy for quality vocational-technical programs.
Approvable facilities	The classroom, laboratory, and equipment provided to the program which meet the requirements of the program and have the approval of the service area state supervisor.
Articulation plan	A structured process for coordinating the linking of two or more educational systems to help students make a smooth transition from one level to another without experiencing delays, duplication of courses, or loss of credit.
Career development program	Subject matter and related techniques and methods organized for the development in individuals of career awareness; career planning; career decision making; placement skills; and knowledge and understanding of local, state, and national occupational, educational, and labor market needs, trends, and opportunities and which assist such individuals in making and implementing informed educational and occupational choices.
Class size	The minimum number of students enrolled in a specific vocational-technical class to be eligible for funding. The minimum class size requirement is 6 students enrolled, with adjustments made for small rural schools with less than 100 students in grades 9-12.
Competency based instructional delivery system	A methodology of instruction that (a) identifies the cognitive, psychomotor, and affective skills needed to meet a specified standard; (b) informs students and teachers of the precise and detailed learning objectives required to achieve performance: (c) emphasizes performance standards in testing, course requirements, and/or graduation; and (d) facilitates learning by allowing each student to master the task through flexibility in learning time and methods.
Completer	Describes a student who finished a planned sequence of courses, services, or activities designed to meet a vocational occupational objective that taught entry level job skills. This person must have met all the requirements of the school or college for program completion whether or not he/she graduated from the school or college.

Conformance	Being in compliance with a specified standard.
Cooperative planning	Coordination of local program planning with area schools and colleges, community/government organizations, industry/economic development efforts, and other providers of education and training for employment.
Course	An organization of subject matter and related learning experiences designed to provide learners with the knowledge and performance skills related to the competencies for an occupation or occupational cluster. A course may be a segment of an occupational program or may be taken as an exploratory or enrichment experience.
Individual vocational education plan (IVEP)	A management tool used to record the vocational planning process for each special populations student enrolled in a vocational-technical program.
Integration	Incorporation of more academic content into vocational-technical courses as well as making academic courses more vocationally relevant by incorporating vocational-technical applications into the curriculum.
Needs assessment	A process conducted by a school or college to design or redesign a vocational-technical program. The needs assessment may establish the need for a specific program or the need to redesign an existing vocational-technical program.
Normal curve equivalent	Normal curve equivalents (NCEs) have many of the characteristics of percentile ranks but have the additional advantage of being based on an equal-interval scale. That is, the difference between two successive scores on the scale has the same meaning throughout the scale. The normal curve is represented on a scale of 1 through 99 with a mean of 50 and a standard deviation of approximately 21. The use of NCEs allows meaningful comparisons between different achievement test batteries and between different tests within the same test battery. The NCEs obtained by different groups of students on the same test or test battery may also be averaged for the purpose of comparison.
Outcome	A measurable aspect of student performance.
Performance measure	A description of an outcome.

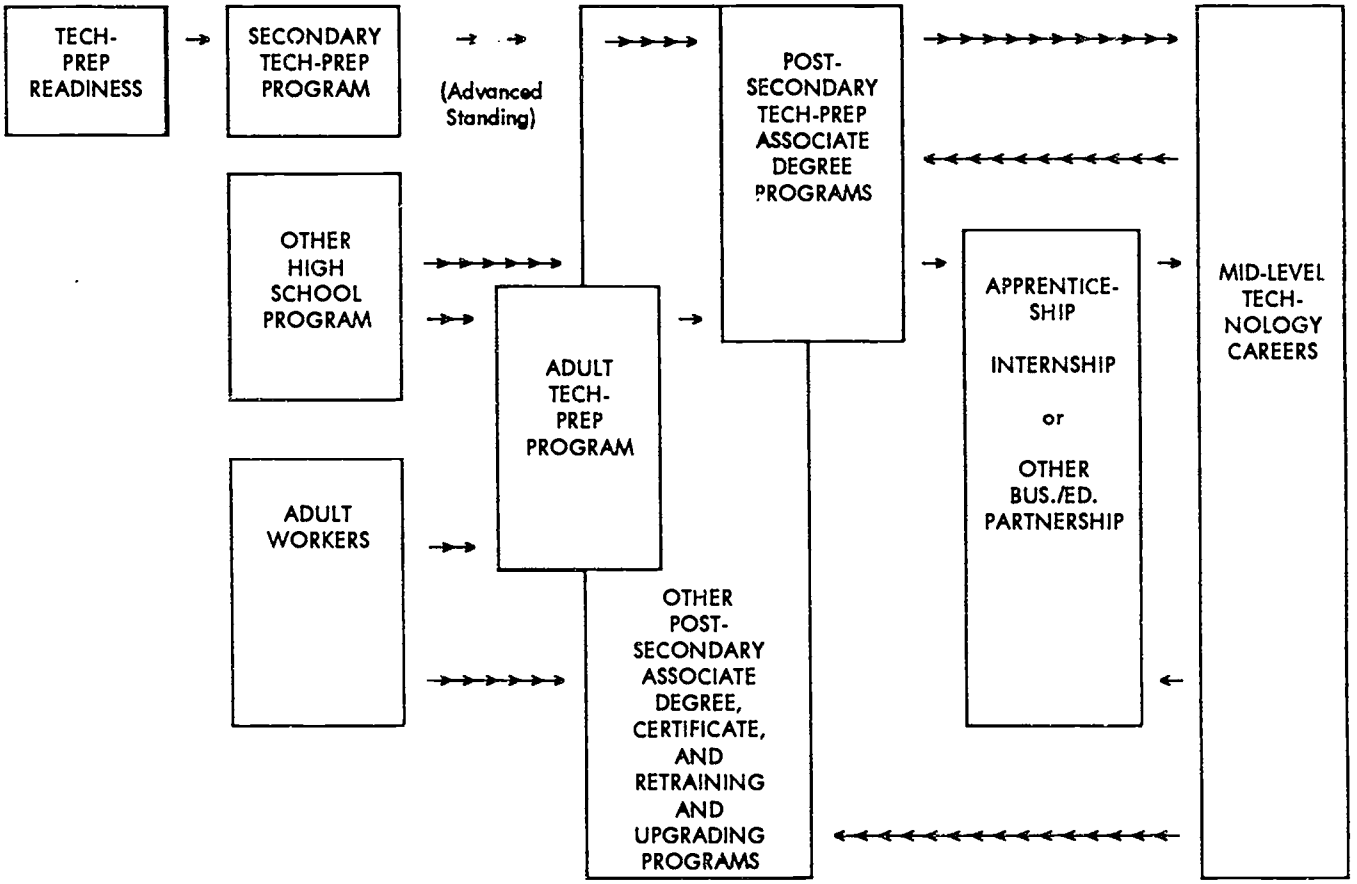
Positive placement	Favorable transition of students upon program completion. Secondary. Includes military placement, employment related to training, apprenticeship, additional high school education in a vocational-technical education program, additional high school education, college education in a related vocational-technical field, and/or additional college education. Postsecondary. Includes military placement, employment related to training, apprenticeship, additional college education in a vocational-technical education program, and/or continuing college education in a related occupational field.
Professional development plan	An individual plan for vocational staff and administrators to continue in-service and participation in professional growth experiences. Examples include college credit courses, professional improvement activities, attendance at workshops and conferences, and other sources of in-service training.
Program	An organized and articulated sequence of courses designed to develop the competencies required for a specific occupation or occupational cluster.
Program evaluation	The determination of how well a school or college meets or exceeds the outcomes desired as the result of the vocational-technical program. The design and performance of the program is compared to the state Standards of Quality through self-evaluations, State Board for Vocational and Technical Education team and individual evaluations, or North Central Association or State School Improvement Process coordinated evaluations.
Program improvement plan	The result of a program evaluation, a program improvement plan outlines the redesign of a program to meet the state Standards of Quality.
Program scope	The number of courses and credits offered within each State Board approved vocational-technical program.
Redesign	The process of evaluation, self-study, and consideration of program standards to restructure and plan changes to an existing program.
Scale score	Units of a single, equal-interval scale that is applied across all levels of Comprehensive Test of Basic Skills regardless of grade or time of year of testing.

Sequential program of study	An integrated series of courses which are directly related to the educational or occupational skills preparation of individuals for jobs or preparation for postsecondary education.
Special populations	Individuals with disabilities, educationally or economically disadvantaged individuals (including foster children), individuals of limited English proficiency, individuals who participate in programs designed to eliminate sex bias, and individuals in correctional institutions.
Standard	The level or rate of an outcome.
Standards of Quality	The minimum requirements for an approvable program as determined by the State Board for Vocational and Technical Education.
Supplementary services	Additional services that may be provided to students including curriculum modification, equipment modification, classroom modification, supportive personnel, and instructional aids and devices.
Vocational student organization (VSO)	Those organizations for individuals enrolled in vocational-technical programs which engage in activities as an integral part of the instructional program. Such organizations may have state and national units which aggregate the work and purposes of instruction in vocational-technical education at the local level.

APPENDIX B

TECH-PREP

A Path to Mid-Level Technology Careers And a Lifetime of Learning



THE NORTH DAKOTA TECH-PREP INITIATIVE

a collaborative effort of the
North Dakota Council on Vocational Education
State Board for Vocational Education and the
North Dakota TECH-PREP Steering Committee

February 1991

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INTRODUCTION

Rationale

The changing demands of the workplace have forced education and training to create new and better ways of preparing students for the challenges of the new work force. According to congressional findings, it is estimated that more than 50 percent of jobs that are developing will require skills greater than those provided by existing educational programs. The reason for these significantly changing skill requirements is the rapid scientific breakthroughs that have led to accelerated technological advances in the workplace. These advances have not only created entirely new occupations, they are continually changing the way most workers are performing their day-to-day responsibilities. Workers, therefore, not only need better training in technologies, they also need to become better prepared to transition from one set of skill requirements to another.

This initiative is designed to address the fastest-growing occupations that center around "mid-level technology careers." These careers consist of occupations that require a minimum of two years of postsecondary training but demand higher-order reasoning, language, math, and science abilities for students to enter and succeed in the postsecondary education.

To provide an incentive for states to experiment with new and innovative approaches to enhancing education and training programs, Congress has authorized a new program called TECH-PREP. This program is designed to be a system-wide articulated program of studies between secondary and postsecondary technical education and/or apprenticeship. To help North Dakota prepare itself for TECH-PREP, the North Dakota Council on Vocational Education undertook an initiative, in cooperation with the State Board for Vocational Education, to create a TECH-PREP program which meets the needs of a rural, sparsely populated state with limited resources and limited postsecondary offerings.

Objectives

This initiative had four primary objectives.

1. To acquaint key organization and agency leaders with the scope and status of TECH-PREP in America.

2. To determine the level of conceptual support among key leaders for implementing TECH-PREP.

3. To develop a system-wide model for TECH-PREP, including definitions, standards, policies, and procedures.

4. To develop a plan for the promotion, dissemination, and implementation of a TECH-PREP program in schools and colleges throughout North Dakota.

TECH-PREP Steering Committee

A TECH-PREP Steering Committee, made up of key leaders from business, education, and government, was formed. This committee consisted of:

Steering committee Members
Dr. Dale Anderson, President, Greater North Dakota Association
Dr. Tom Clifford, Acting Chancellor, North Dakota University System
Ron Dietz, Director, Governor's Employment and Training Forum
Michael Deisz, Executive Director, Job Service North Dakota
Del Easton, Superintendent, Williston Public Schools
Sharon Etemad, Dean, UND-Lake Region
Myron Haugse, Superintendent, Dunseith Public Schools
David Kemnitz, President, North Dakota AFL-CIO
Larry Klundt, Executive Director, North Dakota Council of School Administrators
Dr. Jerry Olson, President, North Dakota State College of Science
Dr. Richard Ott, Executive Director, North Dakota School Boards Association
Dr. Wayne Sanstead, Superintendent, North Dakota Department of Public Instruction

Resource Persons
Dr. Larry Barnhardt, Executive Director, North Dakota Council on Vocational Education
Reuben Guenthner, Deputy Director, North Dakota State Board for Vocational Education
Ron Mehrer, Coordinator of Research and Curriculum, University of North Dakota
Reid Straabe, Representative, North Dakota Council on Vocational Education

The steering committee met on October 26, 1990, to address objectives one and two of the initiative. The primary discussion of the organizational meeting was to provide a rationale using state and national data on the need for TECH-PREP. The National Assessment of Vocational Education report on Postsecondary Vocational Technical Education, the COVE modernization study on secondary vocational technical education, and an analysis of postsecondary vocational technical education data were presented. The steering committee concluded:

1. That they were extremely positive and supportive of TECH-PREP.

2. That a working group should meet prior to the legislative session to address objective number three of the initiative.

3. That the working group consist of steering committee members plus one or two other people selected by each steering committee member.

4. That there should be only one model of TECH-PREP developed and utilized in North Dakota.

FINDINGS OF THE TECH-PREP WORKING GROUP

To assist in carrying out objective three of the initiative, a TECH-PREP working group was formed. This group consisted of representatives appointed by the steering committee (see Appendix). The working group, which met December 20-21, 1990, reviewed and discussed five TECH-PREP models that are being promoted nationally:

- Partners in Academic & Career Education, Pendleton, South Carolina
- Center for Occupational Research and Development, Waco, Texas
- "Maximizing Potential," North Dakota Council on Vocational Education
- American Association of Community & Junior Colleges, Washington, D.C.
- Portland Area Vocational Technical Education Consortium, Portland, Oregon

In addition, "America's Choice: high skills or low wages," a model developed by the National Center on Education and the Economy, was reviewed and discussed. This model describes a European-style system for America's schools.

Over the course of the 1½-day meeting, the working group was charged:

- to determine the major ramifications for TECH-PREP in North Dakota,
- to identify the major outcomes of a TECH-PREP system, and
- to identify implementation issues for TECH-PREP.

Ramifications

The working group identified several ramifications concerning the existing K-12 and community college delivery systems. These included:

- Parents, counselors, and teachers need to be more aware of the need for preparation in various technologies and the opportunities in financially rewarding, mid-level technology careers.
- Elementary and secondary education needs to expand its emphasis on career development competencies K-12.
- Secondary vocational education needs to become more exploratory and technology oriented.
- Curricular enhancement needs to be made to existing secondary academic and vocational technical courses so that students are better prepared for entry and success in postsecondary TECH-PREP associate degree programs.

- New academic courses that teach concepts and the application of those concepts need to be developed.

- New vocational technical education courses that teach general occupational skills need to be developed.

- Both academic and vocational technical education teachers need significantly more staff development than is currently being provided for them.

- Teacher education colleges need to offer a new major in TECH-PREP and update existing methods courses to better prepare new teachers for responsibilities in TECH-PREP classrooms and laboratories.

- Postsecondary institutions need to become more flexible as they adjust their curriculum structure to accept TECH-PREP students.

- Postsecondary institutions need to adopt or develop new TECH-PREP associate degree programs.

Outcomes

The working group identified several outcomes of a TECH-PREP program that lead to mastery in:

- mathematical concepts (including algebra) and their application
- physical science concepts and their application
- natural science concepts and their application
- language and communication concepts and their application
- economic/entrepreneurial concepts and their application
- career development skills
- employability skills (job seeking/job keeping)
- graphics communication
- computer application
- workplace basics, including:
  - self-esteem
  - interpersonal relationships
  - information gathering
  - critical thinking
  - problem solving
  - listening
  - learning how to learn
  - speaking
  - creative thinking
  - teamwork
  - leadership
  - negotiation
  - organizational effectiveness
  - goal-setting/motivation
- structured work experiences
- systems of technology
- general occupational skills
- applied technology
- basic survival (personal) skills

Implementation Issues

The working group identified these implementation issues:

- TECH-PREP should become a formal part of ongoing school improvement and accreditation efforts.
- A memorandum of agreement and fiscal commitment shall be developed between local school districts and eligible postsecondary institutions for specialized technical assistance, curriculum enhancement, and professional development for TECH-PREP.
- The essential skills, attributes, abilities, and attitudes students need to enter and succeed in postsecondary TECH-PREP associate degree programs should be validated.
- These validated skills should be incorporated into courses taught as a part of TECH-PREP.
- Student assessment and counseling students in a sequence of courses based on that assessment should be an ongoing part of TECH-PREP.
- Performance-based expectations should be established for each TECH-PREP course.
- TECH-PREP courses should emphasize both concepts and their applications.
- Academic and vocational technical education teachers involved in TECH-PREP should be afforded staff development opportunities.
- Teacher education methods courses should be updated to advance TECH-PREP.
- K-12 schools and postsecondary institutions should adopt and implement the National Career Development Guidelines.
- TECH-PREP should become a single, unified system-wide program of studies among secondary and postsecondary education institutions in North Dakota.
- A dynamic, aggressive marketing campaign for TECH-PREP, developed by business, industry, education, and labor, should be implemented.
- Support and commitment for TECH-PREP should be obtained from the business and labor communities.

TECH-PREP MODEL

With information gained from the TECH-PREP working group, a draft model was developed, consisting of five major components (a graphic representation of this model is presented in Figure 1):

- TECH-PREP Readiness
- A Secondary TECH-PREP Program
- An Adult TECH-PREP Program
- Postsecondary TECH-PREP Associate Degree Programs
- Apprenticeship, Internship, and Other Business/Education Partnerships

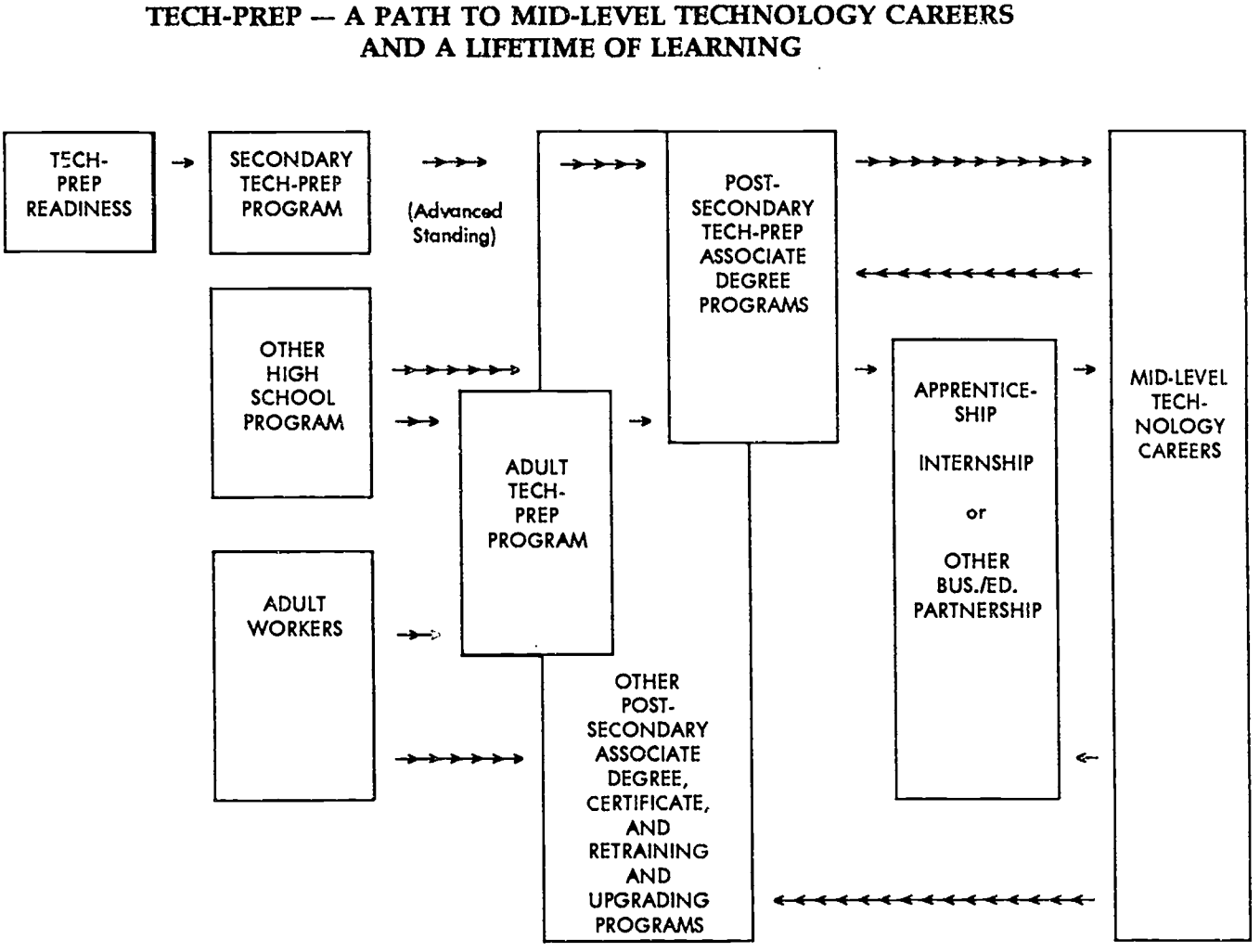

FIGURE 1

TECH-PREP Readiness

By the middle of the tenth grade, students should demonstrate mastery of core knowledge and skills. At a minimum, students should be proficient in the application of:

- Mathematics through basic algebraic concepts.
- Basic physical and natural science concepts.
- Language skills at the ninth-grade level.
- The basic use of computer software in areas such as language and math.
- Junior high school career development competencies, as identified in the National Career Development Guidelines.

Secondary TECH-PREP Program

To determine prerequisite knowledge and skills for TECH-PREP, students will be given a battery of achievement, aptitude, and interest tests. A planned sequence of courses for the 11th and 12th grades will be planned for each student, based on the TECH-PREP readiness assessment. The sequence will vary depending on the student's desired career path. The skills and knowledge needed to enter and succeed in a postsecondary TECH-PREP associate degree program will be validated. Those validated skills and knowledge will be incorporated into new and existing course work as part of the secondary TECH-PREP program. The sequence of courses will meet or exceed high school graduation requirements and may include but is not necessarily limited to:

- advanced systems of technology
- advanced computer application
- structured work experiences
- technical lab courses
- fundamentals of economics/entrepreneurship
- applied mathematics
- algebra
- geometry
- trigonometry
- applied communications
- applied bio-chemistry
- chemistry
- biology
- principles of technology
- physics

Workplace basics, including self-esteem, interpersonal relationships, information gathering, critical thinking, problem solving, listening, job-seeking and job-keeping skills, learning how to learn, etc., will be integrated into TECH-PREP courses.

Adult TECH-PREP Program

Adults who did not complete a secondary TECH-PREP program and wish to enroll in a postsecondary TECH-PREP associate degree program would complete a battery of achievement, aptitude, and interest tests. Based on this assessment, a planned sequence of courses will be developed. These courses are the same as those listed in the secondary TECH-PREP program but can be taken at the college. Upon successful completion of the planned sequence of courses, students can enroll in postsecondary TECH-PREP associate degree programs.

Postsecondary TECH-PREP Associate Degree Programs

The postsecondary institutions would identify existing mid-level technology degree programs and develop new programs based on the needs of the business community. These programs would require higher-order thinking skills and the ability to apply mathematics, science, and communication knowledge and skills at or about the 11th-grade level. These programs should be performance based and incorporate policies and procedures to award advanced placement and/or advanced standing. Postsecondary TECH-PREP associate degree programs are typically oriented to mid-level technologies, including:

- agricultural technologies
- industrial/engineering technologies
- health technologies
- service technologies
- business technologies

These programs would focus on the specific skills required by the employer and would provide the student with the ability to obtain employment and adapt to the changing demands of the workplace.

Apprenticeship, Internship, and Other Business/Education Partnerships

Postsecondary institutions offering postsecondary TECH-PREP associate degree programs would work with area businesses to create work experience partnerships in which students can participate. Apprenticeable occupations would be set up as an apprenticeship program with formal school-to-work linkage.

Programs in which occupations are not apprenticeable would use structured internship or cooperative training sites.

Other business/education partnerships would be formed to provide students with current and up-to-date training experiences.

APPROVAL AND RECOMMENDATIONS OF THE TECH-PREP STEERING COMMITTEE

The TECH-PREP Steering Committee conducted its final meeting on February 4, 1991, to review and discuss the TECH-PREP model and implementation issues. The TECH-PREP model was approved with a few minor modifications, including:

- Quantifying the extent of readiness students should have prior to entering a Secondary TECH-PREP Program, particularly in the area of computer fundamentals.
- Determining who should conduct the readiness assessment, which assessments to use, and to what extent the assessment will be performed.
- Including a statement that the Secondary TECH-PREP Program sequence of courses will meet or exceed high school graduation requirements.
- Incorporating advanced standing and advanced placement as a part of the Postsecondary TECH-PREP Associate Degree Program.
- Including a statement that all TECH-PREP components will embrace the principles of performance-based education.
- Emphasis on lifelong learning should be made by drawing lines on the graphic model from the mid-level technology career back to the educational system.

During the discussion of the Implementation Issues, the Steering Committee agreed with those developed by the TECH-PREP Working Group with a few modifications, including:

- A statement on TECH-PREP should be added to the existing Memorandum of Understanding between the State Board of Higher Education and the State Board for Vocational Education.
- Memorandums of agreement should be made among all local schools and two-year colleges that are a part of the TECH-PREP consortium(s).
- The focus of TECH-PREP should be on mid-level technology careers defined as those that require a minimum of two years of postsecondary training and that training demand students have higher-order reasoning, language, math, and science abilities for entry and success in the program.
- The initial TECH-PREP grant should emphasize collaboration among the major two-year colleges.
- The Steering Committee was in agreement that the State Board for Vocational Education should develop a Request for Proposal that calls for a single consortium among the five public-supported two-year colleges.

- If a single statewide TECH-PREP consortium is developed, consideration should be given to utilizing the TECH-PREP Steering Committee as an advisory committee for the TECH-PREP consortium.

- The initial phase of implementation of TECH-PREP should emphasize the following:

  - Validation of the essential skills and critical attributes students need in order for them to enter and succeed in Postsecondary TECH-PREP Associate Degree Programs.

  - Curriculum development and curriculum enhancement should be made on secondary and adult TECH-PREP courses to incorporate the validated skills and attributes.

  - Emphasis should be placed on providing professional development opportunities for both academic and vocational teachers involved with TECH-PREP.

  - Further refinement and development of the TECH-PREP model is needed, particularly on policies and procedures used for each of the TECH-PREP components.

DEFINITIONS

Tech-Prep Education Program — means a combined secondary and postsecondary program which –

(A) leads to an associate degree or 2-year certificate;
(B) 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;
(C) builds student competence in mathematics, science, and communication (including through applied academics) through a sequential course of study; and
(D) leads to placement in employment.

General occupational skills — means experience in an understanding of all aspects of the industry the student is preparing to enter, including planning, management, finances, technical and production skills, underlying principles of technology, labor and community issues, and health, safety, and environmental issues.

Specific job training — means training and education for skills required by the employer that provides the individual student with the ability to obtain employment and to adapt to the changing demands of the workplace.

Applied Technology Education means:

"Organized educational programs offering a sequence of courses which are directly related to the preparation of individuals in paid or unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree. Such programs shall include COMPETENCY BASED applied learning which contributes to an individual's
—academic knowledge,
—higher order reasoning, and
—problem-solving skills,
—work attitudes,
—general employability skills, and the
—occupational-specific skills
necessary for economic independence as a productive and contributing member of society."

High technology — means state-of-the-art computer, microelectronic, hydraulic, pneumatic, laser, nuclear, chemical, telecommunication and other technologies being used to enhance productivity in manufacturing, construction, transportation, agriculture, mining, energy, commercial, and similar economic activity, and to improve the provision of health care.

Sequential course of study — means an integrated series of courses which are directly related to the educational and occupational skill preparation of individuals for jobs, or preparation for postsecondary education.

ACKNOWLEDGMENTS

The North Dakota TECH-PREP initiative was planned jointly by Dr. Larry Barnhardt, Executive Director of the Council on Vocational Education, Reuben T. Guenthner, Deputy Director of the State Board for Vocational Education, and Ron Mehrer, Coordinator of Research and Curriculum, University of North Dakota/State Board for Vocational Education.

A special thanks is given to the Partnership for Academic and Career Education, Pendleton, South Carolina, for sharing a wealth of information on TECH-PREP. Special thanks also goes to Don Roloff and Bill Rosenberg, supervisors with the North Dakota State Board for Vocational Education, for their help in facilitating the TECH-PREP Working Group and revising the final draft. Appreciation is also given to Reid Straabe, Superintendent of New Town Public Schools, for serving as a liaison for the Council on Vocational Education.

Special recognition is extended to the individuals serving on the TECH-PREP Steering Committee and TECH-PREP Working Group.

Appreciation is also extended to Arlene Fluto, Council administrative assistant, for proofing and final editing.

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Bismarck, ND 58502-1373

or

State Board for Vocational Education
Capitol Building, 15th Floor
600 East Boulevard Avenue
Bismarck, ND 58505

APPENDIX

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APPENDIX C

EDUCATIONAL EQUITY DIRECTORY
SINGLE PARENTS PROGRAM NARRATIVES
1993-94

BISMARCK PUBLIC SCHOOLS
Adult Learning Center
222 West Bowen Ave.
Bismarck, ND 58504

Administrator: Serenus Hoffner
701-221-3790
Coordinator: Marilyn Brucker
701-221-3790

The purpose of the Single Parents, Displaced Homemakers, and Single Pregnant Women program at Bismarck's South Central High School/Adult Learning Center is to provide a preparatory skills component which will encourage students to enter nontraditional/high wage careers leading to economic self-sufficiency.

BISMARCK STATE COLLEGE
1500 Edwards Ave.
Bismarck, ND 58501

Administrator: Dr. Wayne Boekes
701-224-5404
Coordinator: Melba Millard
701-224-5477

The purpose of the Single Parents, Displaced Homemakers, and Single Pregnant Women program at Bismarck State College is to provide a series of activities to include career counseling, basic skill assessment, health and fitness assessment, individual vocational education plans, applied academics, and introduction to trade and technical occupations, which will encourage students to enter nontraditional/high wage careers leading to self-sufficiency.

DICKINSON PUBLIC SCHOOLS
Adult Learning Center
444 Fourth St. W.
Dickinson, ND 58601

Administrator:
701-225-1550
Coordinator: Lee Aljets-Lemen
701-227-3505

The purpose of the Dickinson Adult Learning Center Single Parent, Displaced Homemaker and Single Pregnant Women Project is primarily to provide preparatory services, financial aid, counseling assistance, and support services to qualified single parents, displaced homemakers and single pregnant women within the southwest North Dakota region preparing for enrollment or attending postsecondary vocational/technical educational programs, enabling them eventually to become self-sufficient.

This project is a natural and essential adjunct to the services currently provided through the Department of Public Instruction Adult Education and Displaced Homemaker program.

FARGO PUBLIC SCHOOLS
1104 Second Ave. S.
Fargo, ND 58103

Administrator: Dave Tehle
701-241-4884
Coordinator: Mary Schaefer &
Sharon Lockwood
701-241-4944

The Bridge Parenting and Career Education Project assists single parents, displaced homemakers and single pregnant women to become self-supporting members of society. A component of the Fargo Public Schools' Vocational Education Department, the project strives to provide adequate preparatory services and vocational training to allow participants to transcend social and economic barriers and attain marketable skills.

FORT TOTTEN PUBLIC SCHOOLS
P.O. Box 239
Fort Totten, ND 58335

Administrator: Charles Guthrie
701-766-4282
Coordinator: Liz Nelson
701-766-4839

A comprehensive Young Family Program is proposed that will be open to both mothers and fathers and especially those that are POTENTIAL dropouts or those who have dropped out previously and are in need of assistance. This program will provide academic tutoring, child development/parenting education, child care, counseling, employment training, career planning, on-the-job training, and transportation.

LAKE AREA VOCATIONAL AND TECHNOLOGY CENTER
North College Drive
Devils Lake, ND 58301-1597

Administrator: ElRoy Burkle
701-662-7650
Coordinator: Pat Kurtz
701-662-7650

The overall goal is to provide 25 participants with the marketable skills needed to obtain high wage employment through a combination of preparatory skills training, vocational training, and job placement. Through individual assessment and planning, clients will develop a plan of action that is realistic and goal oriented. Opportunities to develop work maturity, independent living, parenting, and decision-making skills will be provided.

MINOT PUBLIC SCHOOLS
215 2nd St. S.E.
Minot, ND 58701-3985

Administrator: LaDonna Elhardt
701-857-4422
Coordinator: Patricia Giesinger
701-857-4488

This program will serve single parents, displaced homemakers and single pregnant women. It will provide counseling, academics, pre-vocational, vocational, and non-traditional/high wage education. This program will encourage students to make reasonable and realistic choices relevant to career goals while increasing their knowledge base required in today's competitive job market.

NORTH DAKOTA STATE COLLEGE OF SCIENCE
800 North Sixth St.
Wahpeton, ND 58076-0001

Administrator: Rich Hauck
701-671-2319
Coordinator: Carolyn Christensen
701-671-2225

Comprehensive vocational assessment and non-traditional and traditional programs will be offered to underemployed and unemployed single parents, displaced homemakers and single pregnant women on a full-time or part-time basis. It is designed to plan life skills, develop and/or improve occupational skills and provide opportunities for successful job placement.

NORTH VALLEY AREA VOCATIONAL AND TECHNOLOGY CENTER
RR 1 Box 4
Grafton, ND 58237

Administrator: Liz Daby
701-352-3705
Coordinator: Jane Mohagen
701-352-3705

The North Valley *SPDH&SPW* Project will provide at least 100 qualified individuals (especially JOBS clients) with (1) preparatory/employment training, (2) literacy, (3) applied issues, and (4) related support services. Collaboration with other agencies will be on-going. Guidance programs will encourage wage-potential career exploration. This is a continuing program.

RICHLAND COUNTY AREA VOCATIONAL AND TECHNOLOGY CENTER
2101 N 9th St.
Wahpeton, ND 58075

Administrator: Dan Rood
701-642-8701
Coordinator: Dave Wambheim
701-642-8701
W.H.S. 701-642-2604

The RCAVTC, in cooperation with schools and other agencies/institutions in southeastern North Dakota, proposes to provide single parents/displaced homemaker services through career guidance and counseling, life skills counseling and systematic parenting training to displaced homemakers, single parents and single pregnant women. Services will be targeted in rural communities.

SOUTHEAST AREA VOCATIONAL AND TECHNOLOGY CENTER
P.O. Box 372
Oakes, ND 58474-0372

Administrator: Wayne Kutzer
701-742-3248
Coordinator:
701-742-3248

To provide 15 to 30 single parent, displaced homemakers and single pregnant women with the guidance, education and skill training necessary to obtain employment that will support them and their families.

TURTLE MOUNTAIN COMMUNITY COLLEGE
P.O. Box 340
Belcourt, ND 58316-0340

Administrator: Pat Gailfus
701-477-5605
Coordinator: Lynn Sheffield
701-477-5605

Turtle Mountain Community College proposes to address the needs of single parents, displaced homemakers and single pregnant women who lack the skills required for gainful employment. TMCC proposes to provide money for basic needs, information regarding nontraditional high wage careers, gender equity education, life skills instruction, and support services.

VALLEY CITY AREA VOCATIONAL AND TECHNOLOGY CENTER
801 Valley Ave.
Valley City, ND 58072

Administrator: Anneus Meester
701-845-0256
Coordinator:
701-845-0256

The development and implementation of preparatory services, career guidance and vocational-technical skills training which will allow single parents, displaced homemakers and single pregnant women an opportunity to reevaluate their lives and seek careers that will lead to self-sufficiency.

APPENDIX D

EDUCATIONAL EQUITY DIRECTORY
SEX EQUITY PROGRAM NARRATIVES
1993-94

BISMARCK PUBLIC SCHOOLS
Adult Learning Center
222 West Bowen Ave.
Bismarck, ND 58504

Administrator: Serenus Hoffner
701-221-3790
Coordinator: Marilyn Brucker
701-221-3790

Everyone should have access to the opportunities available in our society, regardless of sex, race, or class. We propose to provide gender fair counseling that will increase the enrollment in nontraditional/high wage occupations. A pre-training vocational skills component will be available. The program will also provide gender equity training for teachers.

FARGO PUBLIC SCHOOLS
1104 Second Ave. S.
Fargo, ND 58103

Administrator: Dave Tehle
701-241-4884
Coordinator: Mary Schaefer &
Sharon Lockwood
701-241-4944

The Bridge Parenting and Career Education Project, a component of the Fargo Public Schools' Vocational Education Department, assists single parents, displaced homemakers and single pregnant women to become self-supporting members of society. The Sex Equity facet of the Bridge Project provides programs and activities including affirmative career guidance and counseling to eliminate sex bias and stereotyping within the Fargo Public Schools. The Sex Equity project also strives to enhance the eventual wage earning potential of female students.

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Sharon Lockwood
701-241-4944

The Bridge Parenting and Career Education Project, a component of the Fargo Public Schools' Vocational Education Program, has been operational for eight years. The project has included both single parent services and sex equity programming. The Bridge plans to continue necessary activities in these areas. In addition, this proposal will provide the resources to impact the Fargo Public Schools and promote gender equity planning through a broad-based approach. This Sex Equity Proposal addresses the need for comprehensive equity planning and implementation of continued GESA training for faculty.

FORT TOTTEN PUBLIC SCHOOLS
P.O. Box 239
Fort Totten, ND 58335

Administrator: Charles Guthrie
701-766-4282
Coordinator: Liz Nelson
701-766-4839

This project is a planned systematic approach to provide equity in a school curriculum. It is based on educational excellency and will contribute to the overall improvement of educational achievement. This will be done by cooperative planning between secondary and postsecondary teachers to develop a sequence of study. To give equal access to all students, it also incorporates child care.

GRAFTON PUBLIC SCHOOLS
1548 School Road
Grafton, ND 58237

Administrator: Julian Bjornson
701-352-1930
Coordinator: Kent Green
701-352-3705

The *New Voices Project* works to increase the self-esteem and accordingly the career aspirations of 90 ninth grade and 80 seventh grade students through gender fair educational programs infused in language arts, life skills, social studies, and guidance programs. The proposal is equity research based and has identified an innovative non-traditional career exploration element. This is a request for project continuation.

JAMES VALLEY AREA VOCATIONAL AND TECHNOLOGY CENTER
910 12th Ave. N.E.
Jamestown, ND 58401-6513

Administrator: Arlo Stevick
701-252-8841
Coordinator:

This project will provide learning as to what sex equity is and especially how sex equity is necessary in education. The series of classes will be made available to all of our vocational center staff and to at least one faculty member for each of our five consortium high schools.

LAKE AREA VOCATIONAL AND TECHNOLOGY CENTER
Devils Lake, ND 58301-1597

Administrator: ElRoy Burkle
701-662-7650
Coordinator: Pat Kurtz
701-662-7650

This Sex Equity Project provides services and classroom activities designed to eliminate sex bias and stereotyping in vocational and academic education, by promoting the enrollment of women in non-traditional vocational training programs, and in upper level science and math courses. This region-wide (defined as within an approximate 50 mile radius of Devils Lake) project is flexible and capable of meeting the individual needs of the target population.

LAKE AREA VOCATIONAL AND TECHNOLOGY CENTER
GESA
North College Drive
Devils Lake, ND 58301-1597

Coordinator: ElRoy Burkle
701-662-7650
Coordinator: Pat Kurtz
701-662-7650

The GESA program is based on the premise that in order to ensure quality and excellence on an equitable basis, school districts need to directly confront the issues of gender, race and ethnic bias in teachers' interactions with students. Once teachers have examined their own biases, necessary curricula and other changes can be accepted more easily.

The purpose of GESA is to help teachers look at the impact of gender, race and ethnic biases on their teaching and to discover what happens when they reduce bias in their classroom.

MINOT PUBLIC SCHOOLS
215 2nd St. S.E.
Minot, ND 58701-3985

Administrator: LaDonna Elhardt
701-857-4422
Coordinator: Deanna Chrest
701-857-4488

The purpose of this project is to establish a school climate that promotes excellence in education including equity for staff, students, parents, and community. This project will provide pertinent non-biased information and resources. It will prepare students for a future characterized by change in the economy, the world of work, and society.

NORTH VALLEY AREA VOCATIONAL AND TECHNOLOGY CENTER
RR 1 Box 4
Grafton, ND 58237

Administrator: Liz Daby
701-352-3705
Coordinator: Bernie Burley
701-352-3705

The North Valley Vocational and Technology Center wishes to continue the process of establishing an equity assistance center for Walsh and Pembina County Carl Perkins consortium schools. The project which began in 1992-93 conducts research relating to enrollments by gender in science, math, and technology courses and provides teacher in-service programs and student services related to educational equality.

RICHLAND COUNTY AREA VOCATIONAL AND TECHNOLOGY CENTER
2101 N 9th St.
Wahpeton, ND 58075

Administrator: Dan Rood
701-642-8701
Coordinator: Dave Wambheim
701-642-8701

Richland County Vo-Tech, in cooperation with schools in southeastern North Dakota, proposes to provide equity services through personal counseling, teacher in-service, direct classroom activities, county-wide equity activities via interactive TV, and implementation of the GESA program for area educators.

TURTLE MOUNTAIN COMMUNITY HIGH SCHOOL Administrator: Andrea Gourneau
GESA 701-477-6471 Ext 279
Box 440
Belcourt, ND 58316-0440

Turtle Mountain Community High School would like to make the commitment to train the high school staff on equity issues in the classroom and to expand the options for the students. Instructors and staff have a central impact on this effort. TMCHS needs to promote equity awareness with the staff so they may assume a role to expand the horizons of the students and impact their futures.

UNIVERSITY OF NORTH DAKOTA—GRAND FORKS Administrator: Dr. Jim Navara
Business and Voc. Educ. Dept. 701-777-3515
P.O. Box 8236 - University Stn.
Grand Forks, ND 58202-8236

The purpose of the sex equity provisions of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 is to achieve sex equity in vocational education and create many opportunities for new and effective approaches to achieve economic equity for students.

WILLISTON HIGH SCHOOL Administrator: John Salwei
P.O. Box 1407 701-572-0967
Williston, ND 58801-1407 Coordinator: LuAnn Wick
701-572-0967

Two day-long workshops for local ninth through twelfth grade girls and boys would include information on non-traditional careers in science and mathematics and areas of wellness. The in-service for educators would enable them to become aware of bias-free information they could incorporate into their classrooms.

APPENDIX E

EXEMPLARY PROGRAMS

AGRICULTURE

United High School - Des Lacs, ND

The Des Lacs-Burlington Agriculture Education department serves the students of the United Public School District with a balanced offering of classroom instruction, a supervised agricultural experience program, and an active FFA. Students are exposed to a broad view of the agriculture industry in addition to being provided with a broad spectrum of career opportunities as a result of the classroom instruction, hands-on training, and other relevant activities such as field trips which utilize local area resources as input for the program. Technology is enhanced by the school's membership involvement in the Upper-Souris Consortium.

BUSINESS & OFFICE TECHNOLOGY

Beach High School - Beach, ND

This Vocational Business and Office Technology Program provides meaningful learning experiences to meet the needs of all populations - students of all ages, ability levels, and learning styles. The curriculum is articulated from level to level to ensure continuous achievement of defined outcomes and integrated throughout the entire school curriculum. Beach High School has developed its own vocational plan based on the needs of its students, employment opportunities and trends in the local business community, and the philosophy of the school and its patrons. As the needs change, the Vocational Business and Office Technology Program evolves to meet those needs. The integration of technology, an essential component of the program, is a reality and is successful. A unique feature of this program is that they enroll and serve students from the Home on the Range.

EDUCATIONAL EQUALITY

Grafton Central Junior High School - Grafton, ND

This project has achieved tremendous growth and success in the three years that it has been in existence. It has grown from a language arts and vocational guidance based equity grant involving two instructors to a full-based equity project which involves five different teachers and classrooms at the present and is looking to expand into the senior high school this next year, involving four more teachers and classrooms. The

project was started because there was a recognized need for female students to be given an opportunity to foster their self-esteem and career planning. The strongest feature of this project is the excellent "reality" based approach and "authentic" learning experiences provided to the students. The greatest assessment of the success of this program comes from the students themselves. As one hispanic female stated: "This class is why I come to school. I look forward to it every day and I enjoy myself all the time."

HEALTH CAREERS

James Valley Area Vocational & Technology Center - Jamestown, ND

This Health Careers Program is designed as a practicing health careers education for secondary and adult students in the region. The program provides secondary students with learning and actual experience through coop in the health fields of their choice as they plan life-long careers. This program has also been a state forerunner in the area of adult health provider education (nurse aide training), starting its first adult health provider program in the early 80's with many of the adults being trained for the community's two nursing homes. Occupational planning is a major focus of this program.

HOME ECONOMICS EDUCATION

Grafton Junior/Senior High School - Grafton, ND

This program is designed to prepare young people for present and future family roles as well as preparation for the world of work. A major goal is to help students understand the relationship between work and family life, which reflects the increasing number of women in the work force and the increased demand on all people to manage many roles and responsibilities. The pre-registration enrollment figures in the 9th grade elective life skills class indicates 51% females and 49% males, which has resulted from an overall sensitivity to gender bias and the elimination of stereotyping. The interactive television system has allowed this program to be offered to other schools in surrounding communities. Community involvement is another strong feature of this program.

MARKETING EDUCATION

South Central High School - Bismarck, ND

The Diversified Occupations program at South Central High School was developed for the purpose of addressing the needs of adjudicated youth seeking employment. Special emphasis for employment for the disadvantaged and adjudicated student will be on community based vocational training. This includes basic education, high school completion, necessary support services, search preparation, and employment assistance which will help insure success for the individuals as they enter the job market. Because of the caring and accepting environment at South Central High School, most students acquire a positive attitude about themselves and others that enhances their self-esteem and self-confidence, giving them the needed boost to strive for that end goal - a high school diploma.

SPECIAL NEEDS

North Dakota State College of Science - Wahpeton, ND

The Learning Skills Center is designed to give students assistance in English and mathematics and to provide tutoring services in specialized areas. The programs offered through the Learning Skills Center are unique in that they are not programs that lead to a career. The clientele of the Learning Skills Center is made up of students who are pursuing a variety of programs at the College. The skills required to succeed in these varied programs range from basic reading, basic mathematics, study skills, and on up to advanced technical writing and advanced mathematics. The Learning Skills Center exists as a support center for students in all programs offered at the College. During the past year, the Learning Skills Center served an unduplicated count of 1,216 students, of which 1,136 were enrolled in vocational and technical programs. The Center is dedicated to the challenge of helping students discover personal strengths and developing academic abilities.

TECHNOLOGY EDUCATION

Thompson High School - Thompson, ND

The Technology Education Program provides concentrated and specialized technical courses at the senior high level and is designed so that it is flexible enough to meet most if not all of the wide range of interests, abilities, and goals of every student. The separate courses provide an option of exploring industrial areas based on individual

student interest or need. The program strives to provide every student with an insight and understanding of the technological nature of the American culture, which certainly today can be characterized as technological. School or community improvement projects have been undertaken for the purpose of creating and promoting good public relations within the community.

TRADE AND INDUSTRY EDUCATION

Richland County Area Vocational & Technology Center - Wahpeton, ND

The Drafting Technology program is a comprehensive vocational program designed to allow students to opportunity to explore various drafting career options and also to learn basic skills that may be needed in drafting career areas. This program is an outstanding example of partnerships between school districts, students, and educators. This partnership makes for a viable and positive educational environment for the young people of that region. Outstanding features of this program include: a contemporary curriculum that has been followed and adopted by the State Board for use in all Drafting Technology programs, broad based community support, a proactive local advisory committee, and using leading edge technology by offering the program via interactive TV to other rural schools.

VOCATIONAL GUIDANCE

Elgin High School - Elgin, ND

This comprehensive vocational guidance program serves a four-school consortium: Carson, Elgin, Flasher, and New Leipzig with a total 7-12 enrollment of 377 students. The program is directly involved with other community and school based programs to: identify and aid "at-risk" students in areas such as special education and chapter programs; encourage tech-prep involvement within the schools; create an intervention policy and team for Crisis Intervention; promote involvement with the Drug-Free Schools program; and implement the concepts of applied academics into as many courses as possible. Each student in grades 7-12 is provided services in the areas of career awareness and self-assessment, career information, decision-making skills, and survival skills for the world of work. It should be noted that a career portfolio is established for each student. The National Career Development Guidelines is being used as the guide for this program.