

## DOCUMENT RESUME

ED 136 048

08

CE 010 222

AUTHOR Drenkhahn, Clarence  
TITLE The Northwest Area Schools Multi-District Secondary Occupational-Vocational Training Program. Vocational Education by Mobile Units. Report on an Exemplary Project.  
INSTITUTION Northwest Area Schools Multi-District Secondary Occupational-Vocational Education Center, Lemmon, S. Dak.  
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.; South Dakota State Div. of Vocational Education, Pierre.  
PUB DATE [76]  
NOTE 36p.  
EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.  
DESCRIPTORS Adult Education; Course Descriptions; Demonstration Projects; \*Mobile Classrooms; Program Descriptions; \*Program Development; Program Evaluation; Regional Programs; \*Relocatable Facilities; \*Rural School Systems; Secondary Education; \*Vocational Education  
IDENTIFIERS \*South Dakota

## ABSTRACT

This report discusses the objectives of an exemplary project in sparsely populated southwestern South Dakota which involved nine schools' efforts in the past three years (1974-76) in bringing a variety of vocational education courses to students that none of the districts would have been able to undertake individually, because limited financial resources and the small number of students in each would not have made such educational opportunities feasible. The publication is designed to show the degree to which project objectives have been achieved, and also to provide information which other schools in sparsely populated areas might use in implementing a program of vocational education opportunities through use of relocatable, self-contained facilities. Discussion specifically covers project initiation, general and specific purposes, multi-district inception, activities preceding application for project, the program in operation, course codes, advisory committees, rotation schedules of mobile units, the multidistrict curriculum philosophy, multidistrict staffing, governance, finance and budgeting, and project appraisal. Detailed course descriptions are provided for the areas of General Metals, Building Trades, Electricity/Electronics, Auto Mechanics, Agricultural Technology I (Plant and Soil Science), Quantity Food Occupations, Health Occupations, Sales and Distribution, and Agricultural Technology II (Animal Science and Range Management). (HD)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

# The Northwest Area Schools Multi-District Secondary Occupational - Vocational Training Program

ED 136048

# Exemplary

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

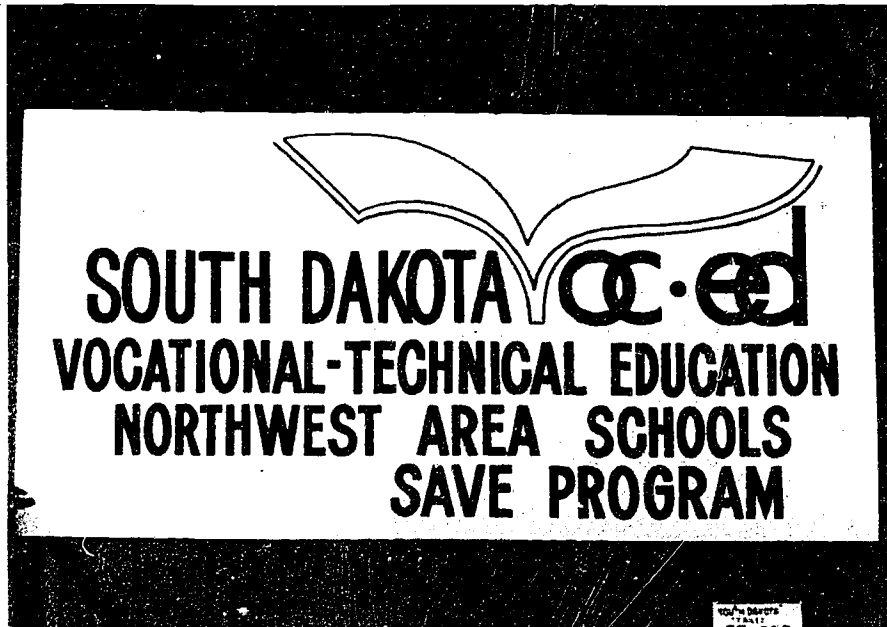
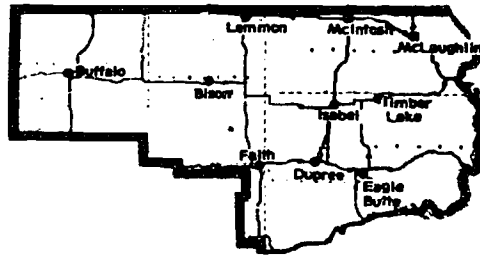
THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY.

CE 010 222

**Vocational Education is the instrument of instruction to assist individuals in preparing for living in an increasingly technical and complex society.**

**Vocational Education is striving to develop the whole student at all levels, secondary, post-secondary and adult, through social leadership abilities as well as skills.**

**—Excerpted from a proclamation by  
Richard F. Kneip, Governor of South Dakota  
Dated February 4, 1976**



## Purpose & Procedure of Report

This publication reports the objectives of an exemplary project in sparsely populated northwestern South Dakota. The project involves nine schools which in the past three years have brought a variety of vocational education courses to students that none of the districts would have been able to undertake individually, because limited financial resources and the small number of students in each would not have made such educational opportunities feasible.

The publication is designed to show the degree to which project objectives have been achieved, and also to provide information which other schools in sparsely populated areas might use in implementing a program of vocational education opportunities through use of relocatable, self-contained facilities.

Contracting agency for the production of this report was the Northwest Area Schools Multi-District

Secondary Occupational-Vocational Education Center, with headquarters offices located at 904 Sixth Avenue West, Lemmon, South Dakota 57638.

Although the reporter admits to having a keen appreciation of the necessity for vocational education, the report is generally about as free of dominance of the educational agency and the South Dakota Division of Vocational Technical Education as might be presented in an independent audit report of the finances of a state agency.

Before it was printed, however, the report was read by both the director of the multi-district and the State director of vocational technical education to assure factual and technical accuracy.

Clarence Drenkhahn  
Researcher and Reporter

# Table of Contents

Project Initiation .....	3
General and Specific Purposes .....	5
Multi-District Inception .....	7
Activities Preceding Application for Project .....	7
Program Underway .....	8
Changes In Second Year .....	8
New Approach Results in Savings .....	9
Reaching Full Operation .....	9
Change from Quarter to Semester Basis .....	10
Course Codes .....	11
Advisory Committees .....	11
Rotation Schedules of Mobile Units .....	11
Curriculum Philosophy .....	14
Brief Descriptions of Courses—Adult .....	16
Detailed Descriptions of Courses—Secondary .....	16
Multi-District Staffing .....	24
Qualifications .....	24
Salaries .....	24
Employing Agency .....	24
Multi-District Staff Policies .....	24
Governance .....	25
Finance and Budgeting .....	27
Summary of Income .....	28
Project Appraisal .....	28
—By Multi-District Board Chairman .....	28
—By Superintendents of Participating Districts .....	29
—By Legislators .....	29
—By Students .....	30
Cooperative Activities Outside the Multi-District Agency .....	32
Center Board & Administrator Statement of Convictions .....	32

# Report of

## The Northwest Area Schools Multi-District Secondary Occupational-Vocational Training Program

### Project Initiation

In the fall of 1973 a vocational education project became operational in sparsely populated northwestern South Dakota which brought instruction by utilization of three relocatable, self-contained units to students in nine schools having a total of 1,335 students in Grades 9-12. The number of units has since been increased to nine, with nine different courses offered on a semester basis.

From their inception, each of the nine courses has met the vocational education standards necessary to qualify for reimbursement.

Initial funding was principally from federal and state sources.

Previously, few or no vocational education courses had been offered by the nine schools, and none had a comprehensive program in vocational education.

\* \* \* \* \*

The following news release issued October 19, 1973, preceding dedication ceremonies at Lemmon on October 31 presents a capsule description of the project in its early stages of implementation.

#### NATIONAL ATTENTION FOCUSES ON NORTHWESTERN SOUTH DAKOTA . . . VOCATIONAL EDUCATION ON WHEELS

Northwestern South Dakota will be the center of national attention during the next few months for recent innovations. Vocational education is the center of attraction as the multi-district SAVE\* organization institutes "vocational education on wheels" for high school students in nine participating school districts.

Dedication ceremonies for the three 12 x 60 foot occupational-vocational education mobile units will be held in Lemmon on Wednesday, October 31, at 1:30 P.M. in the National Guard Armory.

The project, which will involve moving the mobile units periodically to different schools, is a federally-financed exemplary project which has been approved by the State Board of Vocational Education. E.B. (Ike) Oleson is the South Dakota Director of Vocational Education.

The purpose of the project, which will ultimately involve nine transportable classrooms, is to determine the feasibility of mobile vocational education classrooms for rural areas where it would not be practical to bus students to a central vocational facility.

Schools located in northwestern South Dakota that will be involved in the project are:

Buffalo, Bison, Lemmon, McIntosh, McLaughlin, Timber Lake, Isabel, Faith and Dupree.\*

Each mobile unit will look similar to a 12' x 60' mobile home and will contain 720 square feet of instructional area.

The first three units will be designed for course of study in the areas of: (1) general metals to include machine tool operation, sheet metal, electric arc welding and gas welding; (2) building trades to include carpentry, masonry, plumbing and residential wiring; and (3) electricity/electronics to include commercial wiring, industrial electricity, appliance repair, meters, and electric motors.

The proposed curriculum and projects have been designed to provide nine-week instructional units. At the conclusion of each nine-week period, each facility will be rotated to a new site. At the conclusion of the 1973-74 school year, students at a school within each of the nine districts will have received equal exposure to one of the three career educational programs. During the 1974-75 and 1975-76 school years six additional facilities (three each year) will be added to the system so that at the conclusion of the project all nine northwest area schools will have participated in the project on a full time basis.

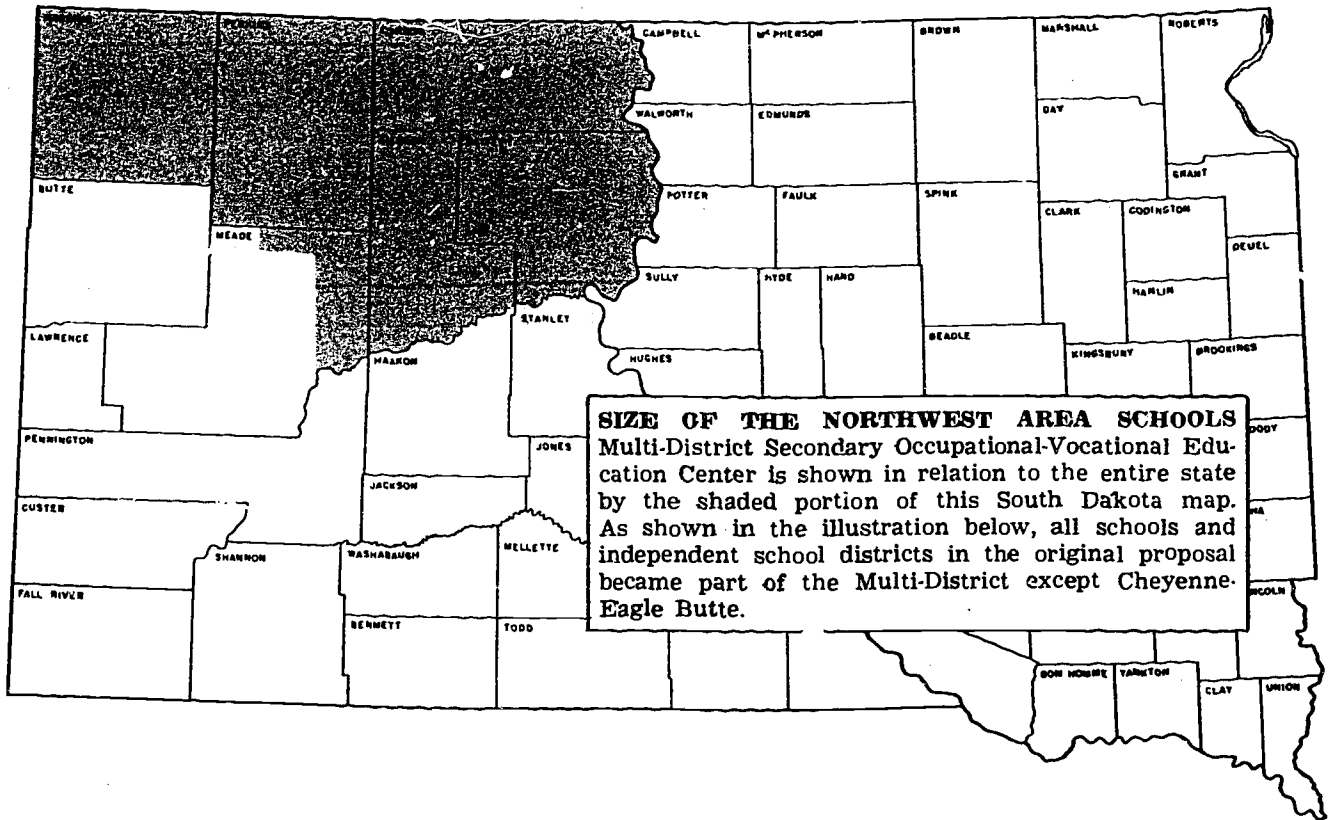
James Doolittle, Director of Northwest Area Schools SAVE Program, will serve as director for the exemplary project.

Interested persons from throughout South Dakota and neighboring states will attend dedication ceremonies at Lemmon on October 31.

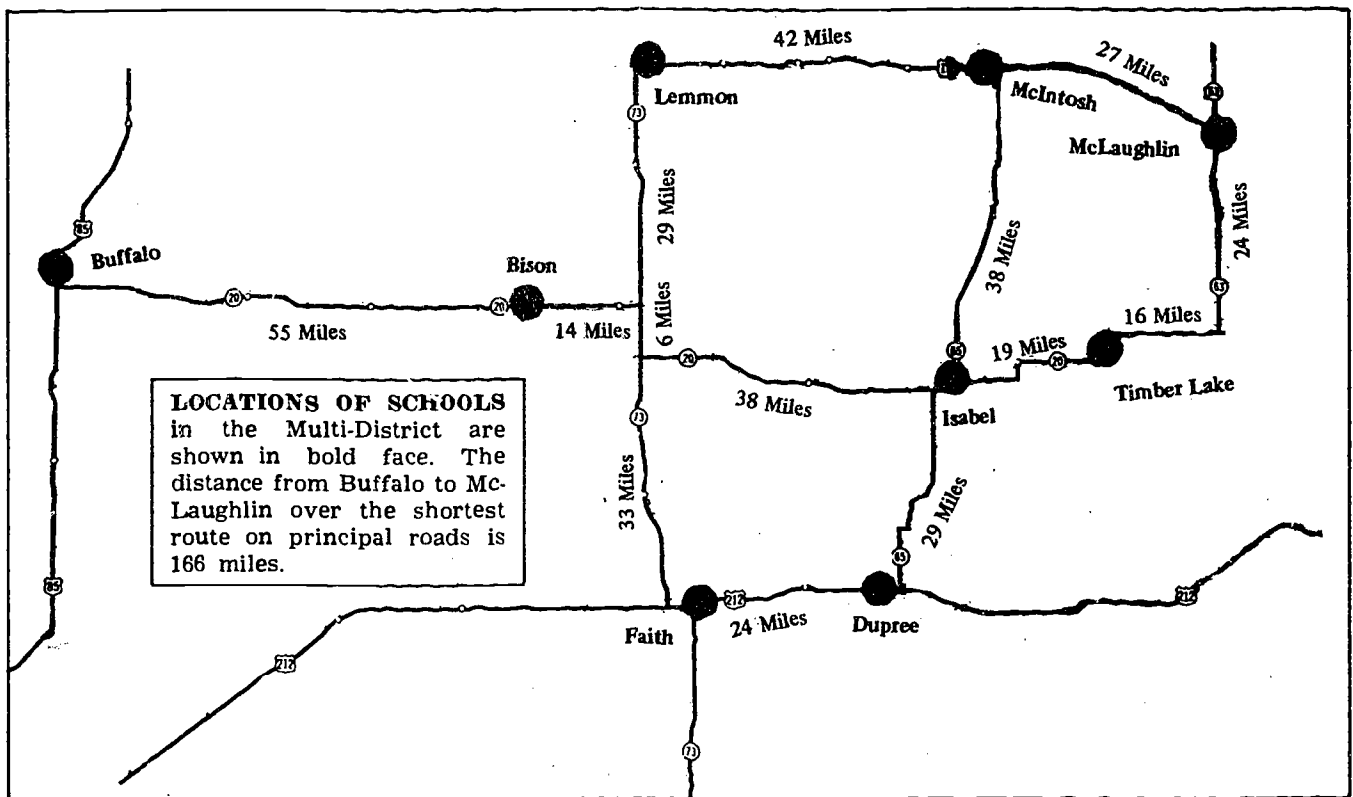
\*Reporter's Note: Full title of the organization is the Northwest Area Schools Special, Adult, and Vocational Education (SAVE) program. A detailed explanation is presented on Page 32.

\*Reporter's Note: Faith and Dupree are cited in the news release as individual schools, but are in West River Independent District No. 18.

# The Northwest Area Schools Multi-District



## Principal Roads Linking the 9 Towns In the Multi-District



## General & Specific Purposes

As set out in the application for the exemplary program, the purpose and the general and specific objectives were stipulated as follows:

"The purpose of this exemplary project is for the development of a relocatable secondary occupational vocational education system for the counties of Harding, Perkins, Corson, Dewey, Ziebach, and parts of Meade; this system will contain the necessary classroom facilities, specialized equipment, curriculum guides, A. V. Materials and will include operational staff training for instructors so as to conduct pre-vocational programs."

General and specific objectives of the program were delineated as follows:

"1. To provide meaningful knowledge, that which can be put to productive use.

"2. To provide an atmosphere in which students evaluate their interests and aptitudes for a specific career.

"3. To provide the students with a new approach for educational experience as well as a sense of relativity to education in general.

"4. To broaden the scope of secondary education in the schools participating in the Multi-District program by serving as an extension of occupational classrooms to each member school.

"5. To provide students with the background

necessary to enter vocational-technical education programs at an advanced level.

"6. To develop an exemplary program which will serve as a pattern allowing other communities to provide a similar delivery system which will afford secondary students throughout South Dakota the chance to learn new skills."

Other parts of the application pointed out the following specifically significant aspects:

1. Prior exemplary projects in the state that have proved successful in more densely populated areas are not practical in the northwest region of South Dakota because of the great distances between educational centers.

2. The proposed duration of the exemplary project was to be from August 21, 1973 to July 31, 1976.

3. The budget proposed amounted to \$238,000 for the first fiscal year, with \$211,000 to come from Federal and State funds and \$27,000 to be raised locally (\$3,000 from each school).

4. Certification for each staff member would be based on certification requirements set forth by the South Dakota State Plan for Vocational Technical Education.

5. The proposal was developed in consultation with advisory committees.

6. Students in Grades 9-12 in the high school operated by the Bureau of Indian Affairs at Eagle Butte would be eligible for participation in the occupational-vocational training program if the governing board would choose to become part of the governing districts.

7. Participation of any school district would be in accordance with the South Dakota State Plan for



**The First 3 Mobile Units In the Exemplary Project**



Vocational Technical Education Fiscal Year 1973, Section 4.2, which cites provisions for participation of students attending private nonprofit schools.

8. The 1973 session of the South Dakota legislature approved legislation and the governor signed into law

an Act which allows for the origination of multi-district secondary occupational-vocational education centers at the desire and action of local school districts with the approval of the State Board of Vocational Education.

## Significant Population & Financial Statistics In the Proposal

### POPULATION

Population by city, 1970 census

CITY	
Bison	406
Buffalo	393
Dupree	523
Faith	576

Isabel	394
Lemmon	1997
McIntosh	563
McLaughlin	863
Timber Lake	625
<b>Total population in entire area, 1970 census was 18,013</b>	

### ASSESSED VALUATION, 1973

School District	Ag Property	Other	Total
Bison Ind. School Dist. 87	\$14,460,773.00	\$1,373,000.00	\$15,833,773.00
Harding Co. Ind. School Dist. 4	22,279,180.00	1,823,331.00	24,102,511.00
Isabel Ind. Dist. 1	4,113,267.00	519,001.00	4,632,268.00
Lemmon Ind. Dist. 88	13,744,236.00	5,135,930.00	18,880,166.00
McIntosh Ind. Dist. 1	7,678,876.00	1,283,353.00	8,962,229.00
McLaughlin Ind. Dist. 21	7,467,589.00	1,878,894.00	9,346,483.00
Timber Lake Ind. Dist. 2	6,588,328.00	1,243,969.00	7,832,297.00
West River Ind. Dist. 18	14,387,810.00	1,922,795.00	16,310,605.00
<b>Total Valuation</b>	<b>\$90,720,059.00</b>	<b>\$15,180,243.00</b>	<b>\$105,900,322.00</b>

### TAX LEVY FOR EDUCATION BY EACH SCHOOL DISTRICT IN 1973

School District	Tax Levy for Education General Fund	
	Ag.	Other
Bison Ind. Dist. 87	20.57	33.14
Isabel Ind. Dist. 1	24.00	40.00
Harding Co. Ind. Dist. 4	13.01	18.01
Lemmon Ind. Dist. 88	20.30	32.60
McIntosh Ind. Dist. 1	21.00	40.00
McLaughlin Ind. Dist. 21	21.20	34.40
Timber Lake Ind. Dist. 2	24.00	40.00
West River Ind. Dist. 18	20.99	33.98
<b>Average Levy</b>	<b>21.01</b>	<b>34.02</b>

### BONDED INDEBTEDNESS OF EACH DISTRICT, 1973

School District	Amount of Indebtedness
Bison Ind. Dist. 87	-0-
Harding County Ind. Dist. 4 (Buffalo)	-0-
Isabel Ind. Dist. 1	\$ 65,000.00
Lemmon Ind. Dist. 88	40,000.00
McIntosh Ind. Dist. 1	61,000.00
McLaughlin Ind. Dist. 21	50,000.00
Timber Lake Ind. Dist. 2	137,000.00
West River Ind. Dist. 18*	97,000.00
*Faith	92,000.00
*Dupree	5,000.00
<b>Total Bonded Indebtedness</b>	<b>\$450,000.00</b>

## Multi-District Inception

Although authorization for formation of a multi-district secondary occupational-vocational education center was provided by SB 66 enacted by the 1973 Legislature (now in Title 13, Ch. 13-39, Sections 13-39-40 through 13-39-64) and the legislation became effective on July 1, the multi-district did not operate as an entity in its own right until July 1, 1974. The lag is principally attributed to time required in firming up the proposal with member school districts and meeting procedures of the State Board of Vocational Education after the proposal had been submitted to it on November 28, 1973. However, from August 1, 1973, when the proposal for funding was submitted up through June 30, 1974, the multi-district operated on a contract which had been approved with Lemmon Independent District No. 88 as the contracting district.

## Activities Preceding Application for Project

Insofar as it was applicable, the proposal for approval submitted to the South Dakota State Board of Vocational Education on November 28, 1973, was in conformity with a recommended outline. Title of the proposal was "The Northwest Area Schools Multi-District Secondary Occupational Vocational Education Training Program." Besides giving the names of affiliated staff and citing obligations the Area Governing Board would agree to upon approval of the application, the proposal included the following major headings: Participating school districts, Student enrollment, Transportation, Assessed valuation, Existing trade centers, Natural barriers, Population projections, Local interest, Area isolation, Proposed curriculum, Proposed facility plan, Proposed facility, Proposed budget, and Composition of multi-district board.

Such a proposal required the gathering or considerable preliminary information in each applicable category.

Regarding participating school districts, a letter on July 18, 1973, from James Doolittle, Director of the Northwest Area Schools, to E. B. Oleson, State Director of Vocational Education, stated that eight independent school districts had each passed a resolution to participate in the multi-district and each had designated a member of the local school board to serve on the multi-district secondary vocational education project.

In addition to statistical and other information, including maps, the proposal listed 29 public meetings that had been held between September 6, 1972, and November 14, 1973, in various places throughout the proposed district.

Also included in the proposal were some specific items referring to the invitation for sealed bids on the first three mobile classroom facilities.

This invitation, issued July 30, 1973, by the Lemmon Independent School District No. 88 as con-

tracting district for the Northwest Area Schools SAVE Program, included requirements besides those for mobile units; namely, for criteria and methodology for course content and objectives, and for 20 hours of staff training.

The invitation was published in the regular edition of the *Lemmon Leader* on August 9 and 16, 1973, stating that the bids would be opened and passed upon at 8:30 P.M., August 27, 1973.

Relative to one part of the invitation regarding the mobile units, the invitation stated:

"All bidders are requested to submit a firm bid on the following:

"Three (3) mobile, relocatable classroom facilities, each 12' x 60' in size, designed to be mobile and fully self-contained (except for electrical connections) to accommodate up to 15 students in each of the occupational-vocational education training programs. Each unit shall be weather-proof and air conditioned and shall include whatever utilities are necessary to conduct training on the equipment provided. The units are to be delivered and ready for turnkey operation F.O.B. Lemmon, South Dakota on or before November 1, 1973."

A portion of the invitation dealing with student coursework and for supplying criteria and methodology for course content required the bidder "to provide . . . the necessary classroom facilities, specialized equipment, curriculum guides, AV materials, and including operational staff training, to conduct pre-vocational training programs in Electricity/Electronics, Metals, and Building Trades."

Regarding other staff training, the invitation stated, in part, that "A minimum of 20 hours of staff training for client's personnel shall be provided at final site location by contractor and shall cover the following areas:

"a. Facility movement and utility hookup procedures.

"b. Equipment operation and maintenance.

"c. Curricula guides, use, and modifications.

"d. Learning performance objectives."

In addition, the invitation required that the information on the curriculum must include course titles and typical outlines by units of instruction.

Successful bidder was a firm in another state, which cited contracts on educational projects it had entered into with agencies in six states and the District of Columbia. Their preliminary proposal was dated July 23, 1973, offering to fulfill bid requirements for courses in General Metals, Building Trades, and Electricity/Electronics on or before November 1, 1973. Price tag on their proposal was \$157,146.



SOUTH DAKOTA V.C.E.D.  
VOCATIONAL-TECHNICAL EDUCATION

## Program Underway

With delivery of the mobile units, instructional equipment and materials, instruction given staff, and assistance from the South Dakota Division of Vocational Technical Education, the program of vocational education was begun at the beginning of the second quarter of the 1973-74 school year. First locations were at Buffalo, Dupree and McLaughlin. Four sections of instruction were offered in each vocational category for the nine-week period, and evening classes for adults were offered in each course twice a week at a minimal charge of \$20 for 30 hours of instruction.

A schedule showed the following rotation of unit sites:

Course	Second Quarter	Third Quarter	Fourth Quarter
General Metals	Buffalo	Bison	Faith
Building Trades	Dupree	Isabel	Timber Lake
Electricity/ Electronics	McLaughlin	McIntosh	Lemmon

Courses were initially offered to pre-vocational students who had not yet reached the age of maturity to be enrolled in a bonafide vocational program as well as to those who had. The purposes were to attain maximum utilization of the units and to assure that some students were not excluded from some courses because of the rotation schedule among the nine schools. This continues to be the practice.

By the end of the third quarter of operation, number of course completions by secondary students totaled 394, and number of course completions by adults totaled 158.

The two accompanying charts present the completion statistics for the first three quarters the first three mobile units were utilized.

### YOUTH & ADULT COURSE COMPLETIONS DURING THREE QUARTERS OF OPERATION, 1973-74

Course	Number of Secondary Students By Section				Sub-total	Number of Adult Completions in Evening Classes, By Section				Sub-total
	#1	#2	#3	#4		#1	#2	#3	#4	
<b>General Metals</b>										
Buffalo	15	14	11	26	66	9	9	0	0	18
Bison	10	10	15	0	35	10	13	0	0	23
Faith	12	12	12	0	36	12	9	0	0	21
<b>Building Trades</b>										
West River (17 Dupree; 21 Faith)	9	14	7	8	38	5	0	0	0	5
Isabel	11	8	9	11	39	8	10	10	0	28
Timber Lake	12	13	11	13	49	10	11	0	0	21
<b>Electricity/ Electronics</b>										
McLaughlin	*6	16	16	14	52	8	0	0	0	8
McIntosh	12	7	12	10	41	13	14	0	0	27
Lemmon	14	10	14	0	38	7	0	0	0	7
<b>Totals</b>					<u>394</u>					<u>158</u>

\*Includes 2 adults

### COURSE COMPLETIONS AT VARIOUS SCHOOLS DURING THREE QUARTERS OF OPERATION IN 1973-1974

COURSE	Number of Girls	Number of Boys	Total
<b>General Metals</b>			
Buffalo	19	47	66
Bison	0	35	35
Faith	0	36	36
Subtotal	19	118	137
<b>Building Trades</b>			
Dupree	2	36	38
Isabel	18	21	39
Timber Lake	10	39	49
Subtotal	30	96	126
<b>Electricity/Electronics</b>			
McLaughlin	0	52	52
McIntosh	11	30	41
Lemmon	7	31	38
Subtotal	18	113	131
<b>Grand Totals</b>	<u>67</u>	<u>327</u>	<u>394</u>

## Changes in Second Year

As the multi-district began plans for the second year, the governing board and staff undertook two significant operational and planning changes.

Initially, the relocation of units was contracted through a mobile-home moving company. But because of prohibitive cost and difficulty in coordination due to weather and other factors, the Northwest Area multi-district board expended \$5,000 for the purchase of a truck-tractor in June of 1974, and the staff began to relocate the units.

The second significant change involved the acquisition of the three additional units which were to house the three additional courses scheduled to become operational in the 1974-75 school year.

The approach to obtaining these units was different from that of the first three. Instead of ordering the units, equipment and courses of study from a commercial firm which represented itself as having special expertise in educational needs, the multi-district turned to its own experience and staff. As a result, the floor plans, structure, equipment and courses of study for the mobile units were all designed through involvement and efforts of the staff.

The multi-district and its staff were assisted in the undertaking by staff in the State Division of Vocational Technical Education. L. A. Iverson, Supervisor of Vocational Teacher Education, points out that South Dakota, as a member of the 10-state Northwest National Curriculum Management Center and the Mid-America Curriculum Consortium, was able to provide curriculum materials and to supply necessary preservice and inservice help. He said that funding was through a grant for curriculum materials and preservice and inservice training from the Educa-

tion Professions and Development Act, and he noted that continuing preservice and inservice training is provided all instructors.

## New Approach Results in Savings



The contract for the actual building of the units did not include either instructional equipment or its installation, and was awarded Rushmore Homes, Inc., Rapid Valley, South Dakota.

Resulting savings from the new approach was considered by multi-district personnel to amount to \$20,000 on each unit, and the units were 14' x 60' instead of 12' x 60'. Cost of the three units, without the equipment and instructional packages, was \$40,635.78.

The invitation for sealed bids was dated September 11, 1974, and bids were opened October 7. In most respects, the functional characteristics required were like the initial three, except that a provision was made for special doors in one of the units. Also, construction that is stronger than is characteristic of conventional mobile units was again emphasized, providing more floor joists and axels, and a double floor. Additional insulation was also stipulated.

The invitation required that the units were to be delivered to Bison, McIntosh and Isabel, and were to be ready for turnkey operation on or before January 10, 1975. Later, however, arrangements were made to deliver the units to Lemmon with no change in price.

The invitation for bids was published in the **Bison Courier** on September 26 and October 3, 1974.

Additional courses the units were to house were Agricultural Technology #1 (Plant and Soil Science), Quantity Food Occupations, and Auto Mechanics.

The three new courses were made available at the beginning of the third nine-week period of the 1974-75 school year. Course completions by secondary students during the two quarters the three new courses were offered numbered 208. Completions by adults in the three new courses numbered 75.

The accompanying chart shows the number of completions at each school in each of the original and three new courses offered during the 1974-75 school year.

Number of completions by secondary students in all six courses totaled 585. In the same time, number of course completions by adults totaled 221.

## QUARTERLY COURSE COMPLETIONS AT VARIOUS SCHOOLS DURING 1974-75

	Secondary Students		Adult Evening Classes	
	Female	Male	Female	Male
<b>GENERAL METALS</b>				
1st Qtr.—Dupree	0	18	0	2
2nd Qtr.—Isabel	5	20	0	10
3rd Qtr.—Timber Lake	2	36	0	23
4th Qtr.—McLaughlin	1	53	0	3
Subtotals	8	127	0	38
<b>BUILDING TRADES</b>				
1st Qtr.—McLaughlin	0	51	1	14
2nd Qtr.—McIntosh	4	27	0	28
3rd Qtr.—Lemmon	2	29	0	17
4th Qtr.—Buffalo	6	19	5	17
Subtotals	12	126	6	76
<b>ELECTRICITY/ELECTRONICS</b>				
1st Qtr.—Buffalo	1	27	6	9
2nd Qtr.—Bison	4	17	1	2
3rd Qtr.—Faith	1	32	0	4
4th Qtr.—Dupree	3	19	0	4
Subtotals	9	95	7	19
<b>QUANTITY FOOD OCCUPATIONS</b>				
3rd Qtr.—Bison	11	11	19	8
4th Qtr.—Faith	21	14	10	3
Subtotals	32	25	29	11
<b>AGRICULTURE TECHNOLOGY #1</b>				
3rd Qtr.—Isabel	11	12	0	0
4th Qtr.—Timber Lake	7	29	0	5
Subtotals	18	41	0	5
<b>AUTO MECHANICS</b>				
3rd Qtr.—McIntosh	13	39	0	18
4th Qtr.—Lemmon	2	38	0	12
Subtotals	15	77	0	30
Grand Totals	94	491	42	179

## Reaching Full Operation

The contract for the third group of three relocatable units was let on July 9, 1975. The invitation for bids was dated June 26, and was published in the **Bison Courier** in consecutive issues of June 26 and July 3, 1975. Successful bidder again was Rushmore Homes, Inc. of Rapid Valley, South Dakota. The bid price for the three "shells" was \$44,150.

Like the second three units, their size was to be 14' x 60', and like all six of the previous units they were to be designed and constructed to be fully self-contained and to accommodate up to 15 students in each training unit.

One unit was to house Distributive Education (Sales and Distribution), and be delivered to Timber Lake. A second was to house Health Occupations, and be delivered to Lemmon. The third unit was designated as being for Agricultural Technology #2

(Animal Science and Range Management), and was to be delivered to Faith.

Delivery date was to be no later than August 20, 1975, unless other arrangements were made with the director of the Northwest Area Schools.

In addition to general specifications, specific requisites were included for each of the three units to make them specially adapted to the type of instructional program to be housed.

With delivery of these three units, and with the multi-district having become an operating entity in its own right on July 1 of the preceding year, an exemplary program of vocational education became fully operational.

### Change from Quarter To Semester Basis

The nine units made it possible for each school to have one of the courses for a full semester. At the beginning of the 1975-76 school year, coursework was changed from the quarter to the semester basis, allowing for a greater degree of instruction and skill training than could be provided on the quarterly basis initially used, when the multi-district had only three units for instruction and for demonstrating the concept of vocational education by mobile units.

Statistics relating to course completions since the multi-district became fully operational were available for only the first semester of the 1975-76 school year as this report was being written. The first chart which follows presents the number of completions by secondary students and by adults in each of the courses.

#### NUMBER OF COMPLETIONS IN EACH COURSE DURING THE FIRST SEMESTER OF THE 1975-76 SCHOOL YEAR

COURSE	Secondary Students		Sub-total	Adult Evening Classes		Sub-total
	Female	Male		Female	Male	
General Metals	0	39	39	0	11	11
Building Trades	2	30	32	3	9	12
Electricity/Electronics	2	16	18	0	0	0
Quantity Food Occupations	23	22	45	10	9	19
Auto Mechanics	15	41	56	3	10	13
Ag. Technology #1 (Plant & Soil Science)	1	23	24	0	20	20
Health Occupations	4	29	33	0	13	13
(McIntosh HS Students)						
Sales & Distribution (Distributive Ed.)	34	27	61	0	0	0
Ag. Technology #2 (Animal Science & Range Management)	7	25	32	0	0	0
Totals	88	252	340	16	72*	88

\* Number includes the 13 McIntosh High School students who took the course in the evening.

The next chart presents the number of youths and adults enrolled in each course at each school during the second semester of the 1975-76 school year.

The third chart is presented to show individual participation in the program. It shows an average of student numbers enrolled during both semesters of

the 1975-76 school year in one of the several courses offered. Enrollment of a student is counted only once even though the student might have enrolled in both courses offered at any one school during 1975-76.

#### SECOND SEMESTER ENROLLMENT IN VOCATIONAL EDUCATION COURSES DURING THE 1975-76 SCHOOL YEAR

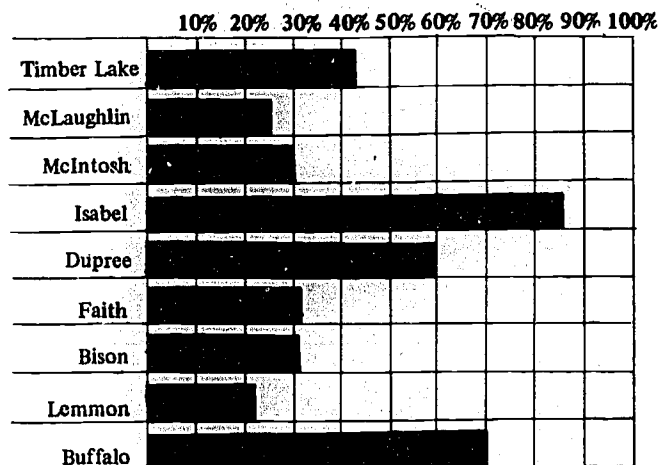
COURSE	Secondary Students		Sub-total	Adult Evening Classes		Sub-total
	Female	Male		Female	Male	
Metals	3	33	36	0	16	16
Building Trades	0	22	22	0	0	0
Electricity/Electronics	5	39	44	2	17	19
Quantity Food Occupations	24	21	45	0	9	9
Auto Mechanics	0	28	28	0	11	11
Ag. Technology #1 (Plant & Soil Science)	3	12	15	0	35	35
Health Occupations	25	21	46	11	0	11
Sales & Distribution (Distributive Ed.)	19	17	36	0	0	0
Ag. Technology #2 (Animal Science & Range Management)	0	20	20	0	0	0
Totals	79	213	292	13	88	101

#### NUMBER OF STUDENTS ENROLLED AS PRE-VOCATIONAL AND VOCATIONAL EDUCATION STUDENTS IN 1975-76 SCHOOL YEAR AND TOTAL SCHOOL ENROLLMENT IN GRADES 9-12\*

School Location	Pre-Vocational & Vocational Enrollment in Mobile Unit Courses	Total School Enrollment in Grades 9-12
Timber Lake	82	191
McLaughlin	50	193
McIntosh	46	152
Isabel	50	58
Dupree	53	89
Faith	40	125
Bison	36	117
Lemmon	67	286
Buffalo	72	103

\*The figure in Column 2 does not include an enrollment by a student during the second semester if the student was enrolled in a vocational education course offered by the multi-district during the first semester.

#### PERCENT OF STUDENT BODY ENROLLED IN ONE OR MORE MOBILE UNIT COURSES IN 1975-76



## Course Codes

The purpose of the physical facilities and governance structure of any educational delivery system is, of course, the implementation of the curriculum for the benefit of students.

The information presented to this point shows that the multi-district was on the quarter system from the 1973-74 school year when the first three mobile units were delivered, and continued on the quarter system until the fall of 1975 when the last three of the nine units were delivered.

Briefly, here are the delivery times of the units, names of courses, and the number assigned to each course from the Code of the U. S. Office of Education.

**October, 1973** (Courses instituted and begun at various locations the second, third and fourth quarters of the 1973-74 academic year):

17.2302—General Metals

17.1001—Building Trades

17.1002—Electricity/Electronics

**December, 1974.** Additional courses begun in the third quarter of the 1974-75 school year, which was in January, 1975.

17.29—Quantity Food Occupations

17.0302—Auto Mechanics

01.0102—Agricultural Technology #1 (Plant and Soil Science)

**August, 1975.** All classrooms were put on a semester basis in the fall of the 1975-76 school year following delivery of the third group of mobile units, which provided for the following additional courses:

07.99—Health Occupations

04.0000—Sales & Distribution

01.0101—Agricultural Technology #2 (Animal Science & Range Management)



## Advisory Committees

From the beginning of the project, there was an advisory committee consisting of administrators of participating districts.

Work of this group was reinforced in the spring of 1976 when the multi-district undertook steps to form craft (lay) advisory committees for each of the nine vocational education courses. First meetings were held in March.

According to the plan, committee membership was to be comprised of one representative from the immediately previous location of the mobile unit, one or two representatives from the current location, and one from each of two towns in which the unit would be located the following year. Travel expenses of each committee were to be included in the budget.



## Rotation Schedules Of Mobile Units

The rotation schedule has previously been shown for the first three units when they arrived in the fall of 1973. The following are rotation schedules as additional units arrived in the two succeeding years of the project, and the schedule which is planned for 1976-77.

### QUARTERLY ROTATION OF COURSES AND MOBILE UNITS IN 1974-75 (SECOND YEAR OF EXEMPLARY PROJECT)

Harding County (Buffalo)

1st—Electricity/Electronics

4th—Building Trades

Bison

2nd—Electricity/Electronics

3rd—Quantity Food Occupations

West River

(Faith)

3rd—Electricity/Electronics

4th—Quantity Food Occupations

(Dupree)

1st—General Metals

4th—Electricity/Electronics

Isabel

2nd—General Metals

3rd—Agricultural Technology #1 (Plant & Soil Science)

Timber Lake

3rd—General Metals

4th—Agricultural Technology #1 (Plant & Soil Science)

McLaughlin

1st—Building Trades

4th—General Metals

McIntosh

2nd—Building Trades

3rd—Auto Mechanics

Lemmon

3rd—Building Trades

4th—Auto Mechanics

**SEMESTER ROTATION OF COURSES  
AND MOBILE UNITS IN 1975-76  
(THIRD YEAR OF EXEMPLARY PROJECT)**

Harding County (Buffalo)  
1st—Auto Mechanics  
2nd—Health Occupations

Bison  
1st—Building Trades  
2nd—Auto Mechanics

West River  
(Faith)  
1st—Agricultural Technology #2 (Animal Science  
& Range Management)  
2nd—Building Trades

(Dupree)  
1st—Quantity Food Occupations  
2nd—Agricultural Technology #2 (Animal Science  
& Range Management)

Isabel  
1st—Electricity/Electronics  
2nd—Quantity Food Occupations

Timber Lake  
1st—Sales & Distribution  
2nd—Electricity/Electronics

McLaughlin  
1st—Agricultural Technology #1 (Plant & Soil  
Science)  
2nd—Sales & Distribution

Mentosh  
1st—General Metals  
2nd—Agricultural Technology #1 (Plant & Soil  
Science)

Lemmon  
1st—Health Occupations  
2nd—General Metals

**SEMESTER ROTATION SCHEDULE PLANNED  
FOR COURSES AND MOBILE UNITS  
FOR THE 1976-77 SCHOOL YEAR**

Harding County (Buffalo)  
1st—General Metals  
2nd—Agricultural Technology #1 (Plant & Soil  
Science)

Bison  
1st—Health Occupations  
2nd—General Metals

West River  
(Faith)  
1st—Auto Mechanics  
2nd—Health Occupations

(Dupree)  
1st—Building Trades  
2nd—Auto Mechanics

Isabel  
1st—Agricultural Technology #2 (Animal Science  
& Range Management)  
2nd—Building Trades

Timber Lake  
1st—Quantity Food Occupations  
2nd—Agriculture Technology #2 (Animal Science  
and Range Management)

McLaughlin  
1st—Electricity/Electronics  
2nd—Quantity Food Occupations

McIntosh  
1st—Sales & Distribution  
2nd—Electricity/Electronics

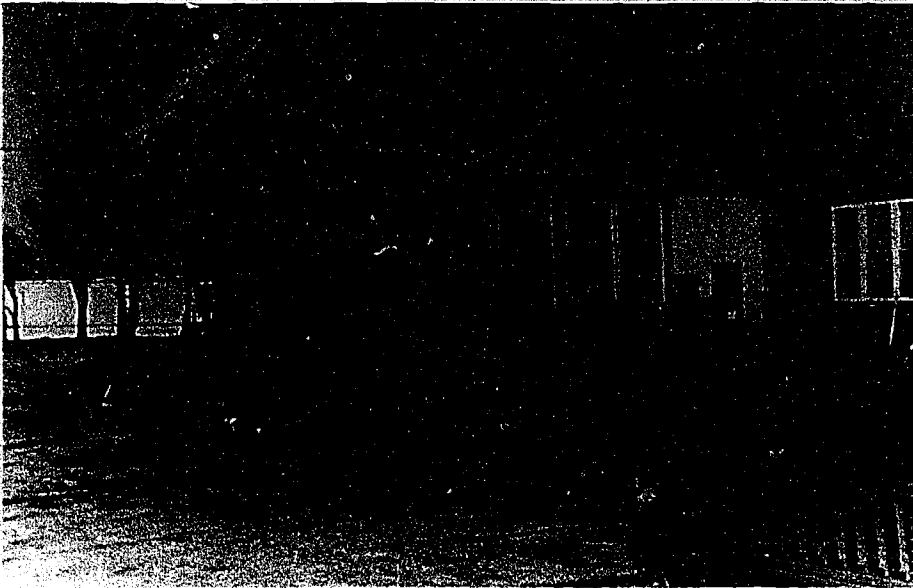
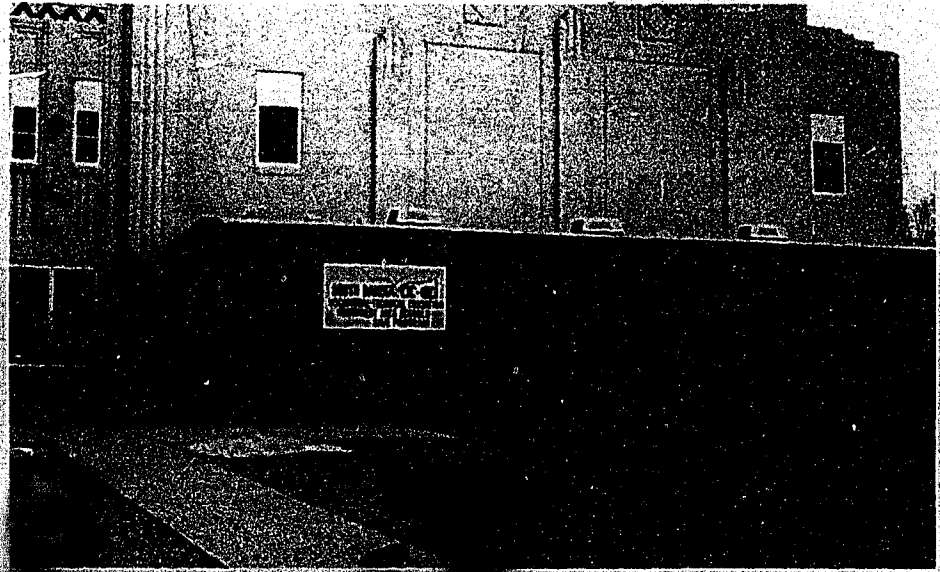
Lemmon  
1st—Agricultural Technology #1 (Plant & Soil  
Science)  
2nd—Sales & Distribution

## Sparse Population Decisive In Multi-District Formation

**INDICATIVE** of the sparse population in the Multi-District is Meadow on Highway No. 20 just 12 miles east of Bison, a town which had a population of 406 in 1970. In addition to the nine towns in the eight independent districts comprising the Multi-District, the area contains about 25 settlements similar to Meadow. Population of the entire Multi-District in 1970 was 18,013.



**THIS MOBILE UNIT**, housing the Health Occupations course, was situated tightly near the Buffalo school building when the photo was taken. The unit has running water and a bath to aid instructional objectives.



**CHARACTERISTICS** of mobile units were designed to be adaptive to specific instructional purposes. This one, for Sales & Distribution, was constructed with an entrance and windows to accommodate needs of that course.

**THE NINE** mobile units were obtained by the Multi-District in groups of three. Dimensions of the last six were enlarged. The first three were 12 x 60 feet. The last six are 14 x 60 feet.







## The Philosophy of The

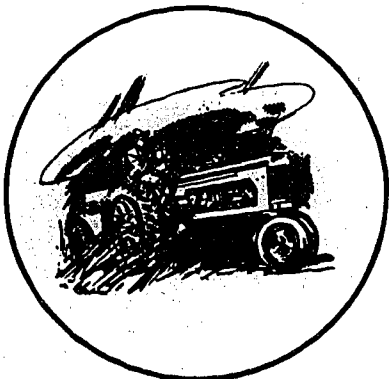
The educational philosophy of the multi-district was stated in the proposal submitted to the State Board of Vocational Education on November 28, 1973. The following five paragraphs present the philosophy, as stated in the proposal.



"Preface. 'The society which scorns excellence in plumbing, because plumbing is a humble activity, and tolerates shoddiness in philosophy because it is an exalted activity, will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water.'—John W. Gardner

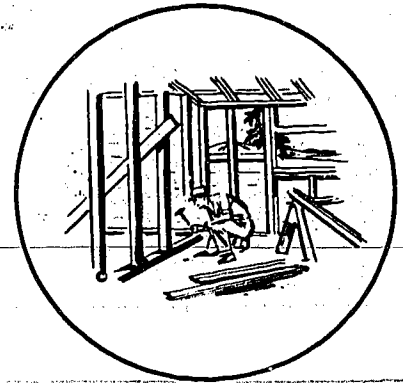
"The public is constantly being alerted by the news media through radio, print, and TV to the problem of discrimination prevalent in our country. In the 1960's headlines emphasized the racial discrimination of the black population. More recently we have been bombarded with discrimination relating to sex and resulting in women's liberation. In South Dakota, Wounded Knee gained international attention. Yet, there is one sector of our population that do not reach the headlines, that are equally the victims of discrimination . . . our children.

"Recent surveys indicate that over 80 per cent of the American students in school are enrolled in a





## Multi-District Curriculum



college prep or a general education curriculum designed to prepare them for college. However, only about two out of ten jobs today require college education. Therefore, not only are we discriminating against the 80 per cent that will never have college degrees (because of academic emphasis), we are also discriminating against the remaining 20 per cent because our curriculum does not give equal weight to areas of learning such as values, feelings, self-concept, and other affective areas of learning. In effect, we are programming for failure because we are not allowing equal weight in the curriculum to the heart (affective) and hands (psychomotor) learnings as to that of the head (academic).

"The secondary Occupational-Vocational Training program offered by Northwest Area Schools seeks to assist students in preparing for occupations, explore pre-vocational-technical training, and provide an atmosphere in which students can evaluate their interests and aptitudes for a specific occupation.

"The philosophy of Northwest Area Schools SAVE Program is based on the belief that education is a vehicle by which every individual may advance toward his fullest potential and become who he most wants, should, can, and will become."



## Briefs About Adult Courses

The following are brief descriptions of the nine vocational courses offered adults by the multi-district in 1975-76 as they were presented in a 1974-75 publication on adult education of the Northwest Area Schools.

General Metals introduces individuals to machine tool operation, sheet metal work, and electric and acetylene welding.

Building Trades is a program designed to present basic background in carpentry and light construction.

Electricity/Electronics offers training in the use of testers, small appliance repair, and basic electricity and electronics.

Quantity Food Occupations . . . presents introductory cooking, baking and meat cutting.

Agricultural Technology I is a program designed to present technical services to farmers and ranchers in the plant development area.

The General Mechanics (Auto Mechanics) unit has the facilities and personnel to teach most facets of engine and vehicle maintenance and repair.

Health Occupations offers adult courses in first aid and emergency medical care.

Distributive Education will introduce programs in sales promotion, merchandising, advertising and management techniques.\*

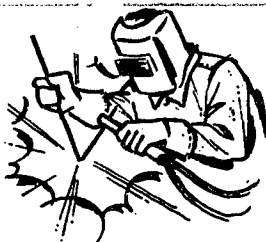
Agriculture Technology II presents ranchers with the latest techniques and equipment for first class animal care, feeding and breeding.

\*The adult course in Distributive Education (Sales & Distribution) had not been offered as this report was being made.

## Detailed Descriptions of Courses For Secondary Students

Outlines of each of the nine courses follow, along with paraphrased excerpts from statements by instructors which tell course objectives, level of proficiency

expected, and any differences between courses as taught to youth and adults. In most cases, outlines have been condensed.



### GENERAL METALS

**Course objectives:** To help students learn the basic skills of machine work and welding, and to help a student decide if a career as a machinist or welder would be an appropriate occupational choice.

#### COURSE OUTLINE

- I. Lathe
  - A. Reading outside micrometer
    - 1. Text
    - 2. Small engines kit
  - B. Lathe bit grinding
  - C. Cutting to size and shouldering
  - D. Drilling and boring on the lathe
  - E. Cutting speeds and adjustments
  - F. Film loop and tape
  - G. Transparencies
  - H. Text
    - 1. Modern metalworking
    - 2. General industrial machine shop
- II. Upright Mill
  - A. Centering shafts
  - B. Keyway cutting
  - C. Milling flat surface
  - D. Cutting speeds and adjustment
  - E. Text
    - 1. Modern metalworking
    - 2. General industrial machine shop
  - F. Film loop and tape transparencies
  - G. Projects
- III. Sheet Metal Work
  - A. Shearing
  - B. Bending

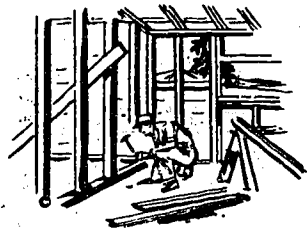
- C. Forming roll
  - D. Soldering
  - E. Projects
- IV. Arc Welding
- A. Basic arc welding—Unit I
    - 1. Make a pad
    - 2. Butt weld
    - 3. Corner weld
    - 4. Lap joint
    - 5. Tee joint
    - 6. Horizontal welding
    - 7. Vertical welding
  - B. Text
    - 1. Modern metalworking
    - 2. Fundamentals of oxy-acetylene and arc welding
  - C. Projects
- V. Acetylene Welding
- A. Proper use of cutting torch—Unit II
  - B. Acetylene welding
  - C. Brazing
  - D. Viewlex
    - 1. Oxy-acetylene safety and set-up
    - 2. Introduction to oxy-acetylene welding
  - E. Text
    - 1. Modern metalworking
    - 2. Fundamentals of oxy-acetylene and arc welding
  - F. Projects
- VI. Drilling and tapping

**Level of proficiency expected:** Students should be able to perform all the basic skills of arc welding. They should also be able to do acetylene work including brazing and cutting, and to set up a lathe for a variety of jobs including cutting a specified thread.

**Differences in course as taught to youth and adults:** The adult course is designed to supplement the type of work in which adults are engaged or to add skills for which they have indicated a need to further develop their interests. Adults generally have specific reasons for enrolling. Some want only to learn welding while others want only to learn about lathe work. An attempt is made to help each person gain the particular skill wanted.

## BUILDING

### TRADES



#### Course objectives:

1. To provide students experience in learning the names of hand and power tools, and the names of various building materials
2. To teach students how to figure amounts of building materials needed for a project, and prices
3. To teach students specific identification of parts of a house or building.
4. To give students a basic understanding of—Masonry work, architectural drawing and house plans, simplified electrical wiring in houses, and plumbing
5. To acquaint students with vocabulary used in wiring and plumbing
6. To help students learn the safe use of tools to avoid injury to themselves and others.

#### COURSE OUTLINE

- I. Hand Tools
  - A. Identification of layout and measuring tools
  - B. Types and uses of squares, hand saws, planes
  - C. Wood and metal boring tools
  - D. Clamping tools
- II. Power Tools
  - A. Power saws, electric drills, sanders and router
  - B. Safety rules
- III. Leveling Instruments
  - A. Carpentry and masonry levels
  - B. Transit level
  - C. Plumb bob
- IV. Building Materials
  - A. Lumber sizes, kinds, grades, figuring board feet
  - B. Drying and seasoning lumber
  - C. Plywood kinds, grades and sizes
  - E. Non-wood building materials
  - F. Fasteners, glue and mastics
- V. Plans and Specifications
  - A. Architect scale
  - B. Reading and drawing floor plans
  - C. Building codes, permits, inspections
- VI. Footings and Foundations
  - A. Laying out a 90 degree angle by the 6-8-10 plan and the transit
  - B. Footing design and size, uses of anchor bolts
  - C. Concrete mix, cubic yards, number of concrete blocks required.
  - D. Brick and block laying, and use of tools
- VII. Floor Framing
  - A. Types of framing, framing members, sill sealer
  - B. Fastening the plate to foundation
  - C. Cross bridging, beams and girders
  - D. Proper nail sizes
  - E. Estimating material required
  - F. Laying out joist markings, box and sill design
- VIII. Wall, Ceiling and Roof Framing
  - A. Identification of members, joists, and common roof designs
  - B. Measuring, marking and cutting
  - C. Figuring materials required
  - D. Nailing
- IX. Electrical Wiring
  - A. Color Code
  - B. Installation of a light, single pole and three-way switch
  - C. Installation of a grounded outlet
  - D. Identification of fuses and circuit breakers
  - E. Use of wiring tools

- X. Plumbing
  - A. Use of torch, soldering copper pipe, welding plastic pipe
  - B. Pipe cutting
  - C. Plumbing layout and installation of fixtures
  - D. South Dakota plumbing code

Level of proficiency expected: High degree of skills in use of hand and power tools, and very good safety practices. In project work, improvement is looked for rather than perfection, as it is believed proficiency will improve with practice.

Differences in course as taught to youth and adults: Some of the things done in adult classes are much like those in classes for youth, but more lecture and group discussion is used in teaching adults.

## ELECTRICITY/

### ELECTRONICS



#### Course objectives:

1. To teach students about the sources of electricity, about magnetism, how electricity behaves under certain conditions, and how it is used in the daily lives of people
2. To teach students to deal with electronic components and get fundamentals of basic circuitry in many types of equipment
3. To familiarize students with uses of voltmeters, ohmmeters, ammeters, capacitor analyzer, tube tester, transistor tester, oscilloscope and signal generators.
4. To provide students experience in the use of hand tools necessary to perform trouble-shooting procedures on specific equipment such as small motors and appliances.
5. To provide students experience in working with electrical wiring, and developing their abilities in laying out and installing hardware associated with electrical wiring.

#### COURSE OUTLINE

- I. Orientation
  - A. Expectations
  - B. Safety
  - C. Lab organization
  - D. Trainer Introduction
- II. Principles of Electricity/Electronics
  - A. Nature of matter
  - B. Sources of electricity
  - C. Electrical terms
  - D. Schematic diagramming
- III. Fundamentals of Direct Current
  - A. Voltage, current and resistance
  - B. Power (watts)
  - C. Series-parallel circuits

- IV. Fundamentals of Alternating Current
  - A. AC voltage and current characteristics
  - B. AC resistive circuits
  - C. Transformers
  - D. Motors and generators
- V. Test and Measuring Equipment
  - A. Multimeter
  - B. Signal generator
  - C. Tube tester, capacitor tester
  - D. Oscilloscope
- VI. Solid State Fundamentals
  - A. Diode and transistor operation
  - B. Basic transistor circuits
  - C. Amplifiers and oscillator circuits
  - D. Receivers
  - E. Troubleshooting and equipment repair

### Small Appliance Servicing

- I. Basic Electricity
  - Measurement of electricity
  - B. Ohm's law
  - C. Series and parallel circuits
  - D. Series-parallel circuits
- II. Tools and Test Instruments
  - A. Common hand tools and special tools
  - B. Electrical supply and continuity testers
  - C. Multimeters
- III. Testing and Troubleshooting
  - A. Uses of a test light, ohmmeter, voltmeter and continuity tester
  - B. Temperature measurement by using a thermocouple device
- IV. Shop Techniques
  - A. Safety
  - B. Splicing, soldering, taping and making solderless connections.
  - C. Making appliance cords and mending heating elements
- V. Fractional Horsepower Motors (Universal, split phase and capacitor start)
  - A. Operation principles
  - B. Service and repair procedures
  - C. Disassembling and reassembling
- VI. Heater-Type Minor Appliances (Irons, toasters and coffee makers)
  - A. Operation principles
  - B. Service and repair procedures
  - C. Disassembling and reassembling
- VII. Motor-Operated Minor Appliances (Mixers, blenders vacuum cleaners)
  - A. Operation principles
  - B. Service and repair procedures
  - C. Disassembling and reassembling

### Electrical Wiring

- I. Basic Wiring Materials and Tools
- II. Principles and Planning
- III. Electrical Safety
- IV. Electrical Service and Grounding Installation
- V. Indoor Wiring
- VI. How to Connect Switches, Receptacles, Fixtures and Appliances
- VII. Electrical Wiring Practices
- VIII. Circuit Failure and Troubleshooting

**Level of proficiency expected:** 1. A thorough understanding of the modern concepts of electricity/electronics; 2. Understanding of safety procedures and know how to practice them; 3. An awareness of careers available in the electrical fields; 4. Skills to service alternating current motors. 5. Skills to repair small appliances. 6. Skills to connect switches, receptacles and appliances. 7. Skills to wire circuits and to connect them to an entrance panel.

**Differences in course as taught to youth and adults:** Objectives for adults are not as comprehensive for youth because the course for adults is for only 30 hours.

## AUTO MECHANICS



### Course Objectives:

1. To provide students a first-hand opportunity to see what is involved in auto mechanics trade
2. To provide those who are interested in working in this field some basic information to gain employment in it.

### COURSE OUTLINE

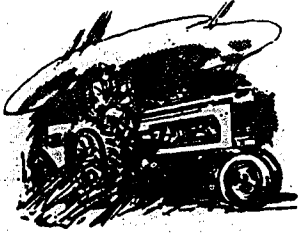
- I. Introductory
  - A. Related careers
  - B. Safety practices
  - C. Hand tool use
  - D. Fasteners—threaded and locking
  - E. Power tool use
- II. Engine Service and Overhaul
  - A. Pre-test—engine overhaul
  - B. Engine disassembly
  - C. Cylinder head service
  - D. Engine valves
  - E. Cylinder block service
  - F. Engine crankshaft
  - G. Pistons—rods and rings
  - H. Camshaft and lubrication
  - I. Engine bearings
  - J. Engine reassembly
  - K. Engine mechanical condition
  - L. Engine cooling system
  - M. Air cooled engine
- III. Power Train
  - A. Clutches
  - B. Manual transmission identification, overhaul, shifters, and synchronizers
  - C. Brakes systems—drum and disc repair
  - D. Front end suspension
  - E. Basic hydraulics
  - F. Hydraulic pumps, controls, cylinders
- IV. Ignition Tune-up and Fuel Systems
  - A. Identifying and overhauling carburetors
  - B. Fuel filter, tanks and pumps
  - C. Servicing automotive batteries
  - D. Cranking systems—service and testing
  - E. The AC-DC charging system
  - F. Lighting and accessory service
  - G. Diagnosing electrical systems

**Level of proficiency expected:** Each student should be capable of disassembling and reassembling any unit in any project done in class, although not all students will have completed every project. However, on projects a student has completed, the knowledge and skills should be adequate enough for the students to do that work if hired to do it.

**Differences in course as taught to youth and adults:** Youth are expected to cover the many facets of the automotive field, whereas the adult program is based on the individual needs of the adults involved at that particular time.

## AGRICULTURAL TECHNOLOGY I

### (PLANT AND



#### Course objectives:

1. To develop agricultural competence needed by individuals engaged in, or preparing to engage in, production agriculture or related fields
2. To give students a better understanding of soils, their properties and how to manage them
3. To develop an understanding and appreciation of the career opportunities in agriculture and to prepare for agricultural occupations
4. To help students gain a working knowledge of fertilizers
5. To provide students an understanding of different crops and their uses.
6. To give students an understanding of various chemicals and their uses
7. To give students a comprehensive understanding of the term "range management."

#### COURSE OUTLINE

- I. Orientation
  - A. Explanation of course objectives
  - B. Definition of plant science
  - C. Careers and opportunities
  - D. Future Farmers of America
  - E. Parliamentary procedure
- II. Soils
  - A. Vocabulary
  - B. Formation
  - C. Classification
  - D. Testing
  - E. Fertilizing
  - F. Conservation and land use
  - G. Land judging
- III. Plant Growth
  - A. Plant types
  - B. Germination and emergence
  - C. Propagation and improvement
  - D. Life processes
- IV. Weeds and Weed Control
  - A. Identification, control and classification
- V. Insects and Control
- VI. Small Grains (Oats, Wheat, Barley)
  - A. Types and uses
  - B. Seed bed preparation
  - C. Fertility and application
  - D. Seed selection and purity
  - E. Planting
  - F. Storage and marketing
  - G. Crop judging
- VII. Corn
  - A. Uses
  - B. Fertility and application
  - C. Seed selection and planting
  - D. Harvesting and storage
  - E. Marketing
- VIII. Forage
  - A. Opportunities
  - B. Varieties and Grades
  - C. Tillage and Planting
  - D. Renovating
  - E. Fertility
  - F. Harvesting and Storing
  - G. Crop judging

- IX. Range Management
  - A. Plant ecology
  - B. Plant identification
  - C. Range conditions
  - D. Opportunities
- X. Equipment Management (Maintenance)
- XI. Crops

**Level of proficiency expected:** A noteworthy ability to recognize and comprehend various equipment, methods and results associated with plant science.

**Differences in course as taught to youth and adults:** The course, as taught to adults, is more specialized.



## QUANTITY FOOD

## OCCUPATIONS

**Course objectives:** To acquaint students with as many facets of the food-service industry as possible. Very broadly, these include baking, cooking, salad making, meat cutting and waitress training. Since this is a highly diversified course, an objective is to help students identify and develop individual interest areas.

#### COURSE OUTLINE

- I. Introduction
  - A. Safety in the commercial kitchen
  - B. Sanitation
  - C. Equipment in the unit
  - D. Career studies
  - E. Time card use, with provisions for student comments
  - F. Dishwashing
- II. Small Quantity Baking for Students
  - A. Measuring, weighing and mixing
  - B. Use of burners, grill, deep fryer, mixer at low level, and care and cleaning
  - C. Location of foodstuffs, tools and equipment
  - D. Evaluation of student performance
- III. Large Quantity Baking Breads—Teamwork
  - A. Yeast types of dough
  - B. Mixing bread dough by hand and machine
  - C. Proofing and baking
  - D. Make up of rolls, buns and breads
  - E. Raisin wheat and sourdough
  - F. Sweet dough, donut glaze, caramel filled items
  - G. Pie crust, pizza dough, special projects
- IV. Quantity Baking—Pies and Cakes
  - A. Pie fillings and baking pies
  - B. Apple and cherry turnovers
  - C. Sheet cakes
  - D. Frostings and cake decorating
  - E. Fruit cakes
- V. Introduction of Meat Cutting
  - A. Recognition of primal cuts of beef
  - B. Identification of meat portions and origin
  - C. Skeletal structure of beef
  - D. Practice cutting—operation of meat saw, slicer, grinder and tenderizer
  - E. Wrapping and freezing
  - F. Co-op education
- VI. Introduction to Breakfast Cookery
  - A. Frying eggs
  - B. Breakfast meats, pancakes, French toast
  - C. Table service
  - D. Stations and duties of a waiter and waitress

- VII. Open Service Restaurant
- VIII. Quantity Cooking
  - A. Soups and sauces
  - B. Thickening agents
  - C. Preparation of vegetables
  - D. Cooking methods—grilling, baking, roasting, deep frying
- IX. Integrated Subjects
  - A. Knife usage
  - B. Cash register and cash
  - C. Kitchen laundry
  - D. Coffee making
  - E. Stock rotation
  - F. Recipe conversion
  - G. Meal planning
  - H. Menu design and planning
  - I. Receiving and storing stock, inventory control
  - J. Waitress training
  - K. Integrated work-study on meat cutting

**Level of proficiency expected:** Students are given an opportunity to demonstrate their skills in activities similar to actual operation of a restaurant open to the public. Where possible, they also gain on-the-job experience in local food service establishments. The level of proficiency is determined by student goals. Generally, however, the overall objective is to enable each student to obtain the highest possible job entry level obtainable, and these range from dishwashing machine operator to meat cutter, grill cook and cook's helper.

**Differences in course as taught to youth and adults:** The same materials and equipment are used. However, cake decorating and meat cutting are both concentrated areas of study in the adult course, and are treated with much greater depth.

## HEALTH

### OCCUPATIONS



#### Course objectives:

1. To impress on students that all careers in health occupations are centered around a patient; therefore, the student must acquire a basic education in anatomy and physiology
2. To help students gain an awareness of various career opportunities in the health field
3. To help students learn procedures in the various health occupations, and make them aware that all those in such occupations must work as a team
4. To introduce equipment used in hospitals
5. To teach necessary skills to obtain employment as a nurse's aide
6. To help students acquire skills in first aid and emergency medical care.

#### COURSE OUTLINE

- I. Basics of Health Care in an Institution
  - A. Orientation to the hospital
  - B. Safety—for both personnel and patient
  - C. Asepsis
  - D. Caring for equipment and supplies
  - E. Patients unit—making beds
  - F. Body mechanics—transporting and moving patients

- G. Personal care of patient
- H. Food Service
- I. Special treatments—fluids and wastes
- J. Observing and recording vital signs
- K. Pre-operative and post operative nursing care
- L. Isolation
- M. Care of the dying patient
- II. Basic Sciences
  - A. Emotional needs and behavior
  - B. Important decisions
    1. Use of tobacco, alcohol and drugs
  - C. Body Systems
    1. Digestive
    2. Circulatory
    3. Respiratory
    4. Endocrine
    5. Skeletal
    6. Muscular
    7. Reproductive
  - D. Safety and First Aid
    1. Artificial respiration
    2. Control of bleeding
    3. Do's and Don't's in first aid
    4. Splinting
- III. Career Exploration
  - A. Special speaker, films, field trips
  - B. Individual research
  - C. Exposure to various careers

**Level of proficiency expected:** Knowledge to satisfactorily pass a written examination, and to be able to obtain employment as a nurse's aide.

**Differences in course as taught to youth and adults:** Adults should be able to work as a nurse's aide after taking the course.

## SALES AND

### DISTRIBUTION



#### Course objectives:

1. Occupational preparation in skills necessary for entry level employment in sales and distributive careers
2. Career exploration into the fields of distribution to enable students to better determine their career goals.

#### COURSE OUTLINE

- I. Business Law
  - A. Legal relationships
    1. Employer and employee
    2. Debtor and creditor
    3. Government and business
  - B. Contracts
    1. Sales
    2. Negotiable instruments
- II. Business Math
  - A. Record keeping
  - B. Percentage mark-up, discounts, commissions
  - C. Cash register
    1. Sales tickets
    2. Making change
- III. Customer Relations and Service
  - A. Good relationships
  - B. Credit policies

- C. Product warranties and merchandise returns
- D. Guards against shoplifting, bad credit, bad checks
- IV. Inventory Control
  - A. Various systems and effect on profit
- V. Purchasing
  - A. Product availability, quality and price
  - B. Profitable purchasing techniques
- VI. Communications
  - A. Preparation
  - B. Written and oral communications
- VII. Salesmanship
  - A. Place in the economy
  - B. Types of sales occupations
  - C. Self confidence and product knowledge
  - D. Steps involved in completing a sale
- VIII. Model Store No. I
  - A. Required preparations in opening a business
  - B. "Chain of command"
- IX. Model Store No. II
  - A. On-the-Job Training in school store, outside sales activity, or employment in local business
- X. How To Make A Buck
  - A. Importance of small business
  - B. Necessity for strong management and good planning
- XI. How to Get a Job
  - A. Letter of application
  - B. Preparations for an interview

- B. Feeding and managing the breeding herd.
- C. Selection of feeders
- D. Feeding and managing feeders
- E. Control of parasites and diseases
- F. Housing and equipment
- G. Record keeping
- H. Marketing
- I. Cross breeding
- III. Range Management
  - A. Conservation practices
  - B. Range improvement
  - C. Grass identification
  - D. Soil identification
  - E. Classification of plants

**Level of proficiency expected:** This program is carried out with the idea of developing abilities, attitudes and understandings that make a person competent to enter an agricultural occupation. Competencies center on a student's being able to explain what is being studied or done, and the practical application and identification in the field of study. Programs of Future Farmers of America and Supervised Farmers are integral parts of the course.

**Level of proficiency expected:** Ability to satisfactorily explain or demonstrate, or both explain and demonstrate, the acquisition of knowledge and skills presented in the course.

**Differences in course as taught to youth and adults:**  
No adults enrolled to this time.

**Difference in course as taught to youth and adults:**  
No adults enrolled to this time.

## AGRICULTURAL TECHNOLOGY #2



(ANIMAL SCIENCE AND  
RANGE MANAGEMENT)

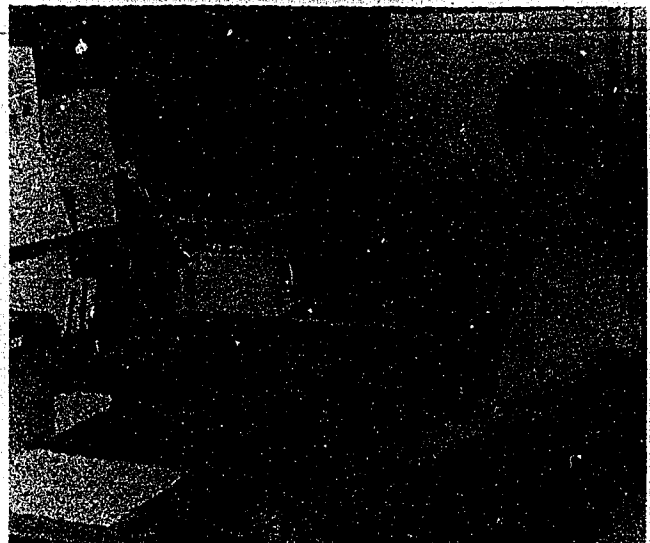
### MANAGEMENT)

#### Course objectives:

1. To develop agricultural competencies needed by individuals engaged in, or preparing to engage in, production agriculture or related fields
2. To develop an understanding and appreciation of the career opportunities in agriculture and to prepare for agricultural occupations
3. To develop human relations skills and leadership abilities required for success in agriculture
4. To meet needs that apply to the community and individuals
5. To engage in community service.

### COURSE OUTLINE

- I. Animal Breeding
  - A. Genetics
  - B. Reproductive system
  - C. Breeding system
  - D. Methods of breeding
  - E. Artificial insemination
- II. Livestock Production
  - A. Selection of breeding stock



## Teacher Offices In Mobile Units

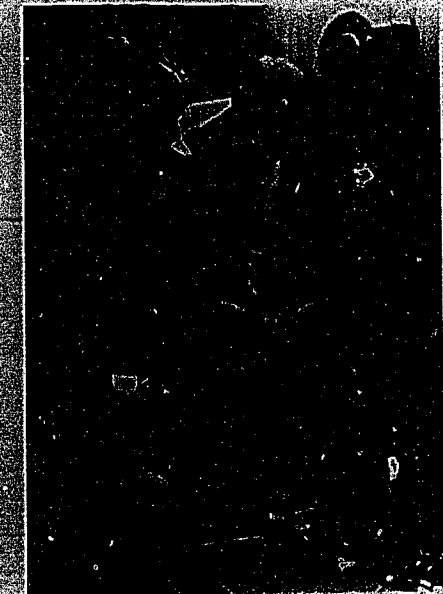
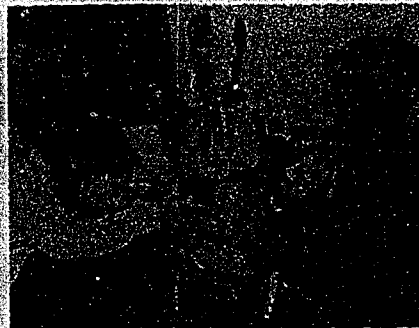
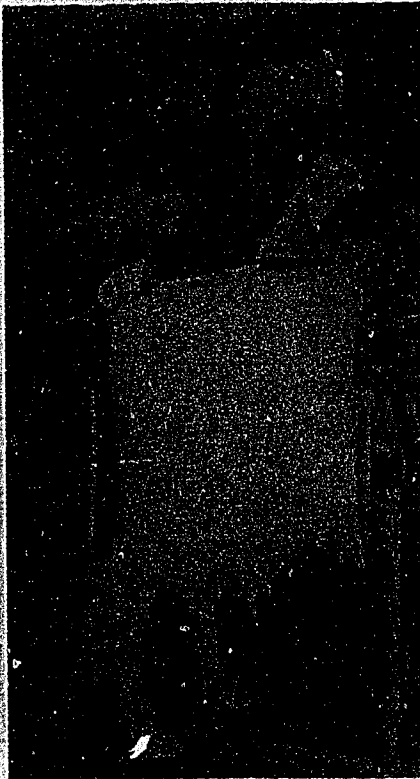
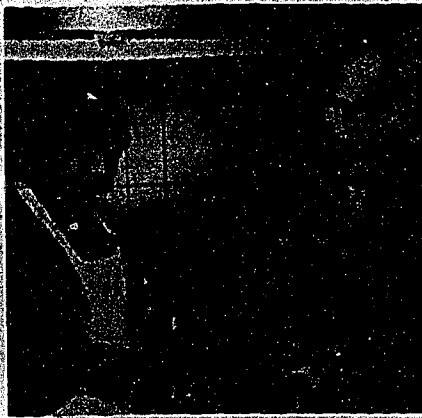
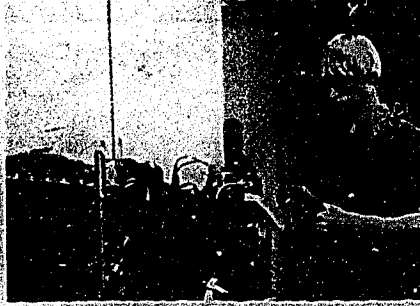
Each of the nine mobile units is equipped with an office. Here, Chuck Oster, auto mechanics instructor, is shown in his. Other instructors in the 1975-76 school year and the course each taught:

- Tom Gabbert..... General Metals
- Herb Stadel..... Building Trades
- Jim Libis..... Electricity/Electronics
- George Mangold..... Agricultural Technology No. 1  
(Plant & Soil Science)
- Harlan Buchholz..... Quantity Food Occupations
- Sue Myers..... Health Occupations
- Tom Enerson..... Sales & Distribution
- Ken Cassens..... Agricultural Technology No. 2  
(Animal Science & Range Management)

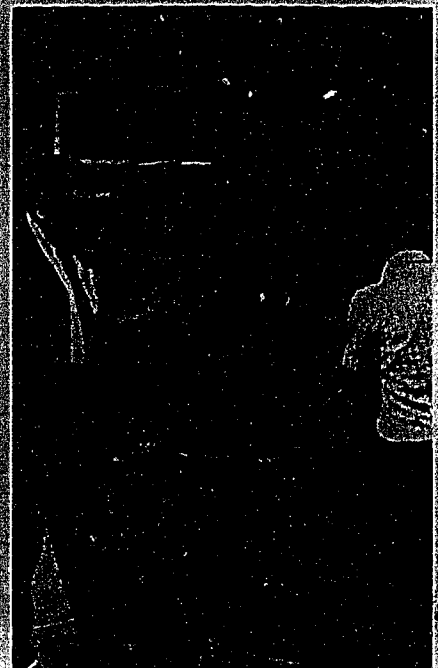
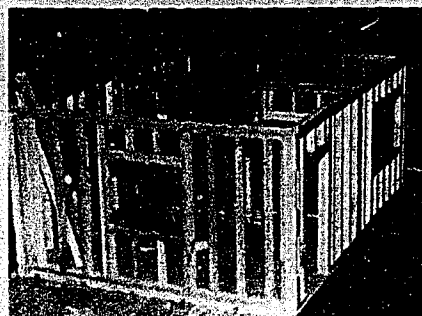
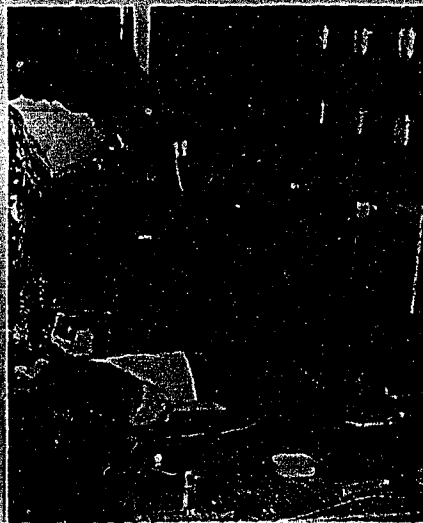
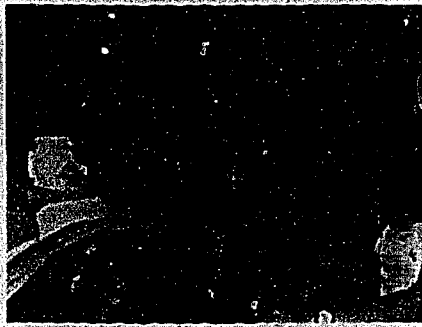
Business manager is Peggy McClung,  
Director for the Multi-District is James Doolittle.



# Glimpses Inside The Mobile Units



# of Instructional Activities For Youth & Adults



## Multi-District Staffing

### QUALIFICATIONS

Instructors in all nine vocational education courses meet the teacher qualifications and certification requirements set out in the State plan for vocational education teachers.

Those teaching the following courses meet requirements set out for teachers in Trade and Industrial Education: General Metals, Building Trades, Electricity/Electronics, Quantity Food Occupations, and Auto Mechanics.

#### Requirements State—

"The instructor shall be a high school graduate, or its equivalent, and shall have at least three years wage-earning experience over and above the learner's level in the trade he is to teach.

"He shall have such teacher training courses as approved by the State Supervisor in the specific area in which he proposes to teach.

"He must be eligible to satisfy the requirements of a limited teaching certificate."

Teachers for the two courses in Agriculture Technology meet requirements which state—

"The secondary vocational agriculture instructor shall have completed at least twenty semester hours in educational subjects, which shall include sixteen semester hours in agricultural education, including practice teaching in agriculture.

"The vocational agriculture instructor shall have a Bachelor of Science degree from a four-year college of agriculture approved by the State Board, or other institution offering training on the same level. Training shall include at least eight semester hours of farm shop and the hours of technical agriculture required by the institution for a degree with a major in agriculture.

"The vocational agriculture instructor shall have had at least two years' actual experience in agricultural experience in agricultural occupations or farming after the age of fourteen, or be farm-reared.

"Limited certificates may be issued in specialized areas of instruction, based upon competency."

The teacher for the course in Health Occupations meets requirements which state—

"All instructors of a certified health occupations program must meet the minimum certification requirements established for their profession and have a minimum of three years of successful experience." (Teacher of the Health Occupations course in the multi-district is a Registered Nurse).

The teacher for the course in Sales and Distribution meets requirements for teachers of Distributive Education, which state—

"The distributive education teacher-coordinator shall have, or acquire during the first three years of teaching:

"At least twelve semester hours specialized training courses in marketing, management, merchandising, retailing, accounting, business law, economics, and public speaking, of which the following are included as a requirement: Philosophy of Vocational Education and

Organization and Operation of Part-Time Cooperative Programs; and at least two years of cumulative wage earning occupational experience in a distributive occupation above the learner's level."

### SALARIES

Teachers are paid according to a salary schedule adopted by the multi-district board, and are also provided a travel allowance to defray costs resulting from traveling to various schools as their instructional units are relocated. The two teachers of vocational Technical Agriculture are now on 11-month contracts. Initially, the first three teachers were paid at an annual rate of \$8,100 plus the travel allowance. The three are completing their third year in the project this spring.

Although the administration in each of the nine schools adapts course scheduling and provides assistance in discipline and other instructional aspects, multi-district teachers are excused from extracurricular responsibilities, largely because most of them also teach adult education courses during some evenings. They also do their own custodial work.

Teachers and the administration have given consideration to the formation of various high school vocational clubs, but clubs are particularly difficult to institute in the situation, because the mobile units and teachers have a new location each semester. Nevertheless, vocational agriculture teachers have undertaken to form Future Farmers of America Clubs at McLaughlin, McIntosh, Faith and Dupree.

### EMPLOYING AGENCY

Since staff members are employed by the multi-district board instead of the local district boards of education, policies are those adopted by the multi-district board.

Besides salary, the policy provisions include medical insurance, sick leave, personal leave, and a section on teacher evaluation.

The complete statement of policies is presented here to show how provisions parallel those in many regular school districts of the state.

### NORTHWEST AREA SCHOOLS MULTI-DISTRICT POLICIES

1. **Salary Payments:** All full time employees shall be paid either on a 12 month or 10 month basis. This includes teachers and non-certified personnel who work on a 12 month contract.

Checks will be issued on the 20th of each month, or if the 20th falls on a Saturday, Sunday, or Monday holiday, the checks will be issued on the preceding Friday if they are available.

2. **Medical Insurance:** Salaried full time professional and non-professional personnel may be covered by the school group insurance policy, which includes hospitalization.

Full time non-professionals are those employed 52 weeks per year.

3. **Sick Leave:** The governing board shall grant 10 days of sick leave per year to all certified employees. Sick leave may be accumulative to a maximum of 45 days.

Any misuse of this privilege may result in loss of all or part of the accumulated sick leave.

Sick leave may be taken for personal illness as well as for death or illness in the immediate family.

(Immediate family will be defined as: Husband, Wife, Mother, Father, Brother, Sister, Children, Grandparents and the parents of the employee's husband or wife.)

No more than 5 days of sick leave may be used per year for death, or 3 days for illness in the immediate family unless approved by the Multi-District Board.

Employees are required to notify immediately their supervisor and principal of their need to take sick leave.

All employees accumulate 1 day of sick leave for each calendar month of employment, commencing with the first month.

A maximum of ten days per year may be earned.

Employees under contract may borrow up to the amount of sick leave they would earn during the year, less the amount already used. Unearned borrowed leave will be deducted from the employee's final pay check each year.

The Director of the Multi-District or his designee is authorized, at his discretion to: (a). Approve sick leave requests, or (b). Require proof of validity of requests.

4. **Personal Leave:** The staff shall be granted two (2) days personal leave each year, non accumulative upon request at least 48 hours prior to planned absence.

This leave shall not be used to earn additional monetary awards.

No personal leave other than sick leave or personal leave will result in a pay deduction of 1 (the days in session) of a teacher's contract salary per day.

The enactment of these leave policies will not affect the current practices of granting leave for professional association responsibilities.

## EVALUATION

1. **The purpose of Evaluation:** Evaluation of the effectiveness of teaching is a basic if not most important function of a supervisor. Without fairly exact knowledge as to the strengths and weaknesses of existing practices, supervisory guidance cannot operate to bring about maximum improvement.

This staff evaluation form is so constructed as to require actual observation of those practices, behaviors, and conditions which give concrete evidence of the quality of teaching.

The judgment of supervisors and administrators as to the relative effectiveness of different teachers is an outcome of the broader purposes of evaluation rather than an end in itself.

2. **Objectives:** (a) The primary objective of this evaluation program is the **improvement of instruction**. It is the belief of this multi-district that through this systematic evaluation by supervisory personnel that teachers will be further encouraged to evaluate themselves and the learning environment for which they are directly responsible.

(b). Another objective of this evaluation program is to assist the administration in evaluating and determining direction for inservice education programs and curriculum development. We hope to be able to note areas that will need further development and emphasis to improve instruction.

(c). Additionally, a sound system of evaluation can assure us that we are meeting the stated aims of the program of instruction and will give more op-

portunities for the teachers to become more familiar with the philosophy and objectives of the multi-district through personal conferences with the supervisory personnel.

(d). A method of follow-up will be established to ascertain the achievement of goals.

(e). Priorities for improvement will be established through mutual assessment to determine short and long term goals.

(f). A sound system of record maintenance will be established on class visitation, follow-up conferences, and other contracts between the appraisee and evaluator.

(g). Failure of the teacher to change, correct or improve according to the recommendations of an evaluation may result in replacement or dismissal.

3. **Supporting Records:** During periods of observation some note taking will be necessary; however, all staff evaluated will be afforded a post supervisory conference at which time content of such notes will be discussed. The entire evaluation will be gone over at this time and both parties will be given the opportunity to refute any decisions. All evaluations will be signed by both the evaluator and staff member with a duplicate copy to be given to said staff member and one to be placed in his or her personal file for future references.

Personal files will be retained for a period of three (3) years and will be made available for inspection by the supervisor and/or Multi-District Director, to the staff member, and governing Multi-District Board.

All teachers will be evaluated at least two times each year, by October 15 and February 15 of each year, by the Multi-District Director and/or immediate supervisor.

## Governance

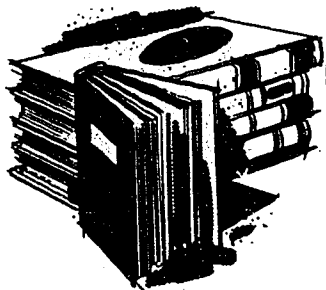
The multi-district is governed by an eight-member board of directors who are chosen by the school boards of each of the eight participating districts from their own membership.

As has been previously pointed out, the legal framework to permit the formation of multi-districts was provided by the State of South Dakota in 1973, and became effective on July 1, 1973.

The "resolutions of intent" from the school districts to form Northwest Area Schools as a multi-district were adopted by action of the State Board of Vocational Education at a meeting in Mitchell on November 28, 1973.

Speaking on behalf of the Northwest Area Schools group were James Doolittle, who had been working as director while the group was functioning under provisions made possible with Lemmon Independent School District as the contracting district, and Supt. W. O. Rorvig of McLaughlin, chairman of the administrative advisory group.

They explained that eight school districts were seeking formation of the multi-district, and that in the previous three years the districts had been operating a cooperative venture in the areas of adult



and special education, with Lemmon as the contracting district.

They said that because of this venture, many of their problems had been worked out before initiating the multi-district.

They also said that the proposed entity covers approximately one-fifth of the land area of South Dakota and included 4,000 students in Grades K-12. They said the proposed entity comprising the eight participating school districts had a population of 20 per cent Indian students. They also said cooperation among districts had been very good and the multi-district project had the potential for creating the biggest impact on that area. It was pointed out that three mobile units were in operation at that time, allowing for instruction in Electricity/Electronics, Building Trades, and Machine Shop (General Metals). Acquisition of six other mobile units to provide for instruction in six other courses was under consideration, they said.

Northwest Area Schools became an official multi-district following the approval of a "resolution of agreement" and the original "proposal" at a meeting of the State Board of Vocational Education at Bison on February 5-6, 1974. However, it was determined at this time that the fiscal operation would be maintained under contract with the Lemmon Independent School District through June 30, 1974, when the multi-district board would become the governing body.

The meeting at Bison was attended by all eight center board members of the multi-district. Length of their terms was determined by lot, resulting in one year terms for two members, two year terms for three of them and three year terms for the other three. Elmer Christman, Lemmon, was chairman, and Andrew Fischbach of the West River Independent District was vice-chairman. Both the chairman and vice-chairman had three-year terms.

Vice-Chairman Fischbach told the State Board members that the multi-district center board was very enthusiastic about their mobile units, and he praised the work of the director and the State Division of Vocational Technical Education. His comments were echoed by Sam Tidball, superintendent at Bison at the time.

The board has had only one membership replacement since it was originally constituted. However, Fischbach has replaced Christman as chairman, and Loris J. Lindskov of Isabel has succeeded Fischbach as vice-chairman. The original member no longer serving is Don McKinstry, Sr., of Bison, who was suc-

ceeded as Bison representative on July 1, 1975, by Herman VanDenBerg of Prairie City.

The following table presents names of the current membership and officers, post office address, and school district each represents on the multi-district center board.

**BOARD OF THE NORTHWEST AREA SCHOOLS  
MULTI-DISTRICT SECONDARY OCCUPATIONAL-  
VOCATIONAL EDUCATION CENTER**

Name & Address	District
Andrew Fischbach—Chairman Faith, SD 57626	West River Ind. #18
Loris J. Lindskov—Vice Chairman Isabel, SD 57633	Isabel Ind. #1
Elmer Christman Lemmon, SD 57638	Lemmon Ind. #88
Byron Dale Timber Lake, SD 57656	McLaughlin Ind. #21
James Hulm Timber Lake, SD 57656	Timber Lake Ind. #2
Paul Mattern McIntosh, SD 57641	McIntosh Ind. #1
Herman VanDenBerg Prairie City, SD 57649	Bison Ind. #87
Gene Stensland Ludlow, SD 57755	Harding County Ind. #4

Powers of the center board were set out in the original enabling act. Briefly, the law provided that a multi-district vocational center board "shall have the same power, authority, responsibility, and obligations as a school district board, except for the authority to levy taxes and issue bonds."

To carry out its responsibilities, the center board holds regular meetings at various locations in the multi-district the second Wednesday of each month. An agenda is prepared by the director who also submits financial information prepared by the business manager.

Principal offices remain in a house located at 904 Sixth Avenue West, Lemmon 57638. The house is supplied by the Lemmon School District which has principal offices at Lemmon where the headquarters staff of the multi-district also reside.

The multi-district offices have one-way Wide Area Telephone Service to help the director keep in contact with mobile units and carry out functions of the multi-district. The director also makes the circuit of the nine units by automobile each two to three weeks.

Information regarding the formation of a multi-district to conduct occupational-vocational education programs is available in-depth in a 36-page publication obtainable from the South Dakota Division of Vocational Technical Education. Title of the publication is **Planning Guide for Multi-District Secondary Occupational-Vocational Education in South Dakota.**

## Finance & Budgeting



Since a center board is not authorized to levy taxes or issue bonds, but once formed, has the duty and the function to provide vocational education in no less than five different occupational fields approved by the state board, it must gain its local income through assessment of participating districts.

It is reimbursed from federal and state funds for its programs the same as any regular school district conducting approved vocational programs. Funds from federal sources reimbursed to the Northwest Area Schools Multi-District for secondary occupational vocational education training in Fiscal 1974 amounted to \$211,000, according to figures obtained from Peggy McClung, multi-district business manager. It also received \$10,015.84 in state funds for its operations during the year ending June 30, 1974.

It is noted that \$151,509.85 of the \$211,000 in federal funds were designated as coming from Part D or "exemplary" program sources, and that \$59,490.15 came from Part B or the "basic program grant." The amount coming from local sources in Fiscal 1974 was \$27,000.

Including the \$157,146 expended for the three equipped mobile units and for the other provisions required in the bid invitation, total expenditures amounted to \$238,000.

The accompanying recapitulation table prepared by the Office of the Director shows the expenditures for the fiscal year ending June 30, 1974. Courses offered during the last three quarters of the school year were General Metals, Building Trades, and Electricity/Electronics. Figures relating to the three include costs of mobile units and equipment in addition to general instructional costs.

### RECAPITULATION OF EXPENDITURES IN 1973-74

Item or Program	Total
Administration	\$31,783.52
Instructional—	
General Metals	74,384.68*
Building Trades	58,866.42
Electricity/Electronics	58,357.84
Dissemination	1,149.16
Telephone	1,255.82
Moving Instructional Units	7,059.12
Sites (Electrical connections and Site preparation)	5,143.44
	<u>\$238,000.00</u>

\*Figures cited for General Metals, Building Trades and Electricity/Electronics include costs of mobile units and equipment in addition to general instructional costs.

In the 1974-75 school year, three new units were added at the beginning of the third nine-week period, but total expenditures were down to \$212,543.58 for the year. The decrease was attributed mostly to

economies resulting from the different method of the acquisition of the three units.

A statement of income shows that revenue was provided from the following sources:

State reimbursement from Fiscal Year 1973-74	\$10,015.84
Local district assessment for 1974-75 (Nine schools in the eight districts at two times the preceding year since the number of mobile units had been increased from three to six)	54,000.00
Federal—Part D (Exemplary)	109,611.00
Federal—Part B (Basic program grant)	19,986.30
State distribution (For operations in 1974-75, but received after July 1, 1975)	13,633.36
Interest	172.87
	<u>\$207,419.37</u>
Deficit to be offset by income in next Fiscal Year	5,124.21
	<u>\$212,543.58</u>

In addition to the three courses begun in the 1973-74 school year, the following courses were made available in 1974-75: Quantity Food Occupations, Auto Mechanics, and Agriculture Technology #1 (Plant and Soil Science).

The following is a summary table of expenditures during Fiscal Year 1975. Figures relating to Quantity Food Occupations, Auto Mechanics, and Agriculture Technology reflect costs of the three new mobile units in addition to general instructional costs.

### SUMMARY OF EXPENDITURES IN 1974-75

Item or Program	Total
Administration	\$34,462.17
Instructional—	
General Metals	19,904.71
Building Trades	12,481.48
Electricity/Electronics	13,981.64
Quantity Food Occupations	52,745.77*
Auto Mechanics	37,482.67
Agriculture Technology #1 (Plant and Soil Science)	38,583.80
Dissemination	184.34
Telephone	1,296.80
Transportation	932.72
Repair and Maintenance	487.48

\$212,543.58

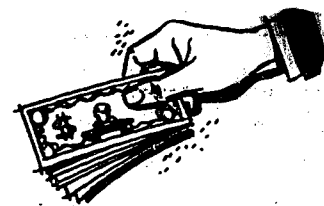
\*Figures cited for Quantity Food Occupations, Auto Mechanics, and Agriculture Technology #1 reflect costs of mobile units and equipment in addition to general instructional costs.

Figures on total expenditures for the year 1975-76 will not become available until the end of this fiscal year, but an amended budget shows anticipated expenditures amounting to \$290,235.00. The budget reflects the cost of three additional units put into operation for instruction in Health Occupations, Sales and Distribution (Distributive Education), and Agriculture Technology #2 (Animal Science and Range Management). A summary of the budget follows.

**SUMMARY OF THE BUDGET FOR 1975-76**

Item or Program	Total
Administration	\$41,878.25
Instructional—	
General Metals	16,794.25
Building Trades	15,755.25
Electricity/Electronics	15,376.25
Quantity Food Occupations	15,974.00
Auto Mechanics	15,344.00
Agriculture Technology #1 (Plant & Soil Science)	17,249.00
Health Occupations	46,863.00*
Sales & Distribution (Distributive Education)	47,838.00
Agriculture Technology #2 (Animal Science & Range Management)	42,663.00
Dissemination	1,000.00
Telephone	2,000.00
Moving Instructional Units and Instructors' Travel	11,500.00
Sites (Electrical Connections and Site Preparation)	—0—
	<u>\$290,235.00</u>

\*Figures for Health Occupations, Sales & Distribution, and Agriculture Technology #2 include costs of mobile units and equipment in addition to instructional costs.



**Summary of Income  
Since Project Initiation**

Since its activation in the 1973-74 school year, the exemplary project has had income from federal, state and local sources.

Records in the South Dakota Division of Vocational Technical Education show it has received \$370,731 in federal Part D or "exemplary program" funds since the fiscal year beginning July 1, 1973.

Federal Part B or "basic program grant" funds over the period since the fiscal year beginning July 1, 1973, and extending through December 31, 1975, have amounted to \$82,142.14. In the same period, state reimbursement has totaled \$27,021.18.

Financial support coming from local sources has increased from \$27,000 during the initial year of operation, to \$54,000 the second year, and to \$108,000 during the current year for a total of \$189,000.

Anticipated amount from local sources for the 1976-77 school year is \$126,000.

**Project Appraisal**

Letters asking for appraisal of the project sent to the chairman of the Multi-District Board, to superintendents of the participating districts, and to four legislators of the multi-district area reveal strong support for the project, although some mild but significant reservations were expressed by two of the three legislators who responded.

The letters, dated March 9, 1976, asked each of them these specific questions:

"Have mobile units met expectations in providing students the best and most varied vocational programs that could be offered at a reasonable, efficient cost in schools in sparsely populated areas? Would you recommend a similar operation for other sparsely populated areas?"

A strongly affirmative reply was made by Multi-District Board Chairman Andrew Fischbach.

**The letter from Chairman Fischbach follows:**

I think that in general the mobile units have exceeded expectations. The response by both the high school and adult students has been most gratifying. Particularly pleasing was the fact that some of the male graduates of the Quantity Food Occupations unit have joined the military service to learn more in the area.

With our limited enrollments and very limited financial abilities this is the only possibility we have of exposing our students to a variety of vocational areas that may create an interest in a career. At the same time, some vocational skills are acquired that will always be useful. We cannot hope to produce skilled artisans in the limited time we have, but those students who show an aptitude for a particular vocation have demonstrated that they can indeed learn a lot in a semester.

I would highly recommend a similar cooperative effort in any sparsely settled area where people are willing to cooperate for the benefit of all the students.

## RESPONSES FROM SUPERINTENDENTS

**From Russel Monroe, Harding County Schools, Buffalo**

The Northwest Area Multi-District exemplary vocational education project is serving a large land area with few students. In our school at Buffalo we feel that the total project is a real asset to the system. It was intended to relate interest areas to students and adults in many vocations not readily available to participants. There is a limitation in skill development but the vocational interest to be pursued by the student, if he desires, cannot be replaced. I feel the goals are being instituted well and that a program of this nature has unlimited resource to the communities involved.

**From Dr. Carl Ochsner, Bison**

There is no doubt in my mind that more could be done if we had a full year of classes for each vocational area we wanted to offer. We have simply dedicated ourselves to providing exposure to a great variety of vocations rather than to attempt to prepare students for the job market in one or two vocations. In that way the mobile classroom approach is meeting our needs. Yes, it has some shortcomings and some problems but we always seem to be able to cope with them. Yes, I would recommend this approach for sparsely settled areas.

(Dr. Ochsner then adds that he feels that these units and other Northwest Area Schools projects have bonded the schools together. He says, "Oh yes, we disagree on issues at our monthly meetings, but we don't dwell on petty issues that so often set one school against a neighboring school. What I am saying is that the Northwest Area projects have given us many common grounds and also get us administrators together at least once a month to discuss Northwest Area services and common problems.")

**From John E. Iszler, Isabel**

Our organization provides us with an excellent variety of vocational programs. These mobile units have surpassed the expectations of their founders.

The cost of these units is less than our cost per CRU in our school system. This multi-district vocational education concept is an excellent answer to the question of providing quality vo-ed services to students in sparsely populated areas at a reasonable cost.

The small size of our high school allows an opportunity for every student to participate each semester in a new unit.

**From Robert L. Saeley, Lemmon**

As a new superintendent in the Northwest Area, my remarks will be very limited. From what I have been able to observe, the mobile unit concept of vocational education is working very efficiently. If it were not for this program, we would never be able to offer the variety of vocational programs that we currently do. I would most certainly recommend a similar operation for other areas similar to ours.

**From Dennis Bernau, acting superintendent, McIntosh**

Our students are very excited about each mobile unit except the Agriculture/Crops unit. Each mobile unit provides a basic overview of the occupation they are associated with; therefore, I would consider them

to have met our expectations. The units have worked well by moving them from one town to another even though not all school semesters end at the same time.

**From W. O. Rorvig, McLaughlin**

1. I believe Mobile Education Units are the answer to curriculum needs of small schools in sparsely populated areas.

2. Staffing has been much better than average.

3. I believe the cost is within reason, since not only secondary students, but also adult educational programs can be handled by the same units.

4. It is the only system I know of that can provide programs where individual school costs would be prohibitive.

5. I would recommend the program to districts which have the need, vision and management personnel to operate such a program.

6. The cooperation among district school superintendents is very necessary, as one bad attitude can change an entire program. You need dedicated administrators, not only for oversight of program, but to assess progress.

**From Dominic Calvetti, Timber Lake**

As a new administrator this year, I was skeptical of the project, but in a very few months I was a confirmed apostle. I was amazed at the cooperation among nine schools in governing and funding. The participation by so large a number of students in seven different areas shows these young people believe in the benefits. It is something an individual school district would not be able to do unless it expended a great amount of funds. The nine trailers and their areas benefit our school district population very well and we cannot accommodate all those interested. The Adult Education classes are very popular. The program has been accepted very well here in Timber Lake, and I would encourage other school districts to give this type of program careful consideration.

**From W. O. Warren, West River Ind. School District (Faith and Dupree)**

The mobile units have provided experiences in a wide variety of vocations. This has given whole new concepts for our children who live in this isolated area and the District could not have provided these opportunities without the assistance we have received from State and Federal sources.

## RESPONSES FROM LEGISLATORS

**From Rep. Harold Millett, Reva**

It seems to me that possibly the project has not been in operation long enough to properly evaluate. I am sure that some courses are at each school for too short a period to allow students to gain much from them. The biggest benefit would seem to be that the student might get enough insight into a subject to know whether they would want to pursue it further.

As federal funds are withdrawn, I am sure we must take a good look at the program and may have to make many adjustments to insure its continuance. No matter how you present additional courses in the sparsely settled areas of our state, it is going to be costly.

**From Rep. George Mortimer, Belle Fourche**

I think the Multi-District Occupational-Vocational Project is doing a very good job. I also believe it is



the only system that could be used in such an area, considering the population and distance problems.

The cost-sharing of equipment and instruction makes it possible for the schools to offer instruction that would otherwise be too costly.

To make a program like this work, you must have local support and good management. Both are in this project. It is working good.

#### From Senator John Riedy, Thunder Hawk

I believe that the use of mobile units for vocational instruction by the Northwest Area Schools is a very practical thing. There may be some question about the necessity of offering such courses to high school students. Since it is evident that those schools involved feel it is a good idea, then the use of the mobile units is certainly the most economical way of providing the space needed for such classrooms.

Offering instruction in several vocational courses has value in more ways than one. It is good for the student who does not intend to go to school after graduation from high school. The person who does intend to attend one of our post secondary vocational schools can better decide which skill he would like to pursue. Since the instruction is offered on a semester basis there is enough time spent on the various courses so that the student can decide intelligently on his future.

#### STUDENT COMMENTS

Student response to the project has been enthusiastic. The comments which follow were given in evaluation as students were completing the first group of courses offered by the project. The multi-district director says they are representative of most student comments gathered at the time. They are presented here, with wording and punctuation slightly edited.

Since that time, the multi-district has prepared a formal evaluation and follow-up instrument for student use. A copy is presented after the student comments which follow. The form has been "tested" on students, and plans are in progress which would have the director of the multi-district present it to students in each unit after each course.

Student comments follow.

\* \* \*

In this course I feel I have learned practical skills that I will be able to take with me no matter what line of work I go into.

\* \* \*

When this (mobile) unit came I hardly knew anything about carpentry or plumbing or about drawing blueprints. Now I think I know most of the tools and how to use them, and could draw a set of blueprints if I had to. Dad plans to let me, with a little help from him, build a hog house.

\* \* \*

I have learned a lot even though my tests don't show it. The course helps the kids who don't plan to go to college.

\* \* \*

It was a real good class, and is the only class in this school that interests me. It also can be real helpful in everyday life.

\* \* \*

I learned quite a lot (from this course), got real interested in carpentry, and am going to try to get a job at one of the lumber companies this summer.

33

I think I learned something that will stick with me for a long time. The course gave me an idea of what I like and don't like. It got boring some times, but that's just school. I like it.

\* \* \*

I learned a lot about carpentry mostly, and I also thought you were a good teacher - - better than any other in this school.

\* \* \*

I learned a lot of useful things in this class. In fact, it's about the only class I'm taking that amounts to anything.

\* \* \*

I think this class was a worthwhile class. Even though I'm not going on into the electronics business I learned things I'll probably use in the future. It was interesting also.

\* \* \*

I thought this course was one of the most educational courses I've ever taken. It was educational, I think, because of the interest in the course. If I had my choice I'd take it for a full year or more. Before taking this class I had no interest in electronics and now I'm tempted to go on and take more.

\* \* \*

I thought this (electricity/electronics) was a very good course. I learned a lot and enjoyed the course very much. We covered a lot of material, but it wasn't dull. The teacher was good and knew a lot about what he was teaching and could get it across. This is the best mobile I've taken to date.

\* \* \*

I think this Vo-Tech van was great and did a lot for me because it was something to do with the life I'm going to lead. The courses in it were great, especially the welding and acetylene. The instructor was just fine and I wish he could stay (longer).

\* \* \*

The van was very interesting. I learned a lot of things about metals and welding that I probably wouldn't have learned if I (hadn't taken) this van. The teacher was super. It's because of him, I think, that I learned so much. He knew what he was doing and would always stop to help you. He always laughed with us about our jokes and he was always in a good mood. I think that if all teachers were like this, students would like school and the teacher too. This is the best class I have ever had.

\* \* \*

This was the best van I've ever been enrolled in. Now, whenever I want to weld or cut metal I'll know how. The class was interesting and I'd encourage anyone who had the chance to take it. Our teacher is really good with metals and really knows what he's doing. He is friendly and makes the class interesting by explaining everything and usually has to twice, because the first time I never always caught it.

\* \* \*

I really enjoyed this class. I learned things I can use for the rest of my life when working on a farm or on nearly any mechanical job. If it weren't for this class I probably would not have had the chance to learn these things. As for the instructor, I think he is a wonderful man with as much knowledge in the field as any man with many years of tooling.

\* \* \*

I liked this class because this is what I want to do.

\* \* \*

STUDENT QUESTIONNAIRE

NORTHWEST AREA VOCATIONAL EDUCATION  
MULTI-DISTRICT

NAME ----- GRADE ----- AGE ----- DATE OF BIRTH -----

NAME OF PARENT OR GUARDIAN -----

ADDRESS OF PARENT OR GUARDIAN -----

PHONE NUMBER OF PARENT OR GUARDIAN -----

CHECK THE APPROPRIATE BLANKS:

SEX: MALE \_\_\_ FEMALE \_\_\_

RACE: CAUCASION \_\_\_ AMERICAN INDIAN \_\_\_ OTHER \_\_\_

WHAT DO YOU INTEND TO DO AFTER HIGH SCHOOL COMPLETION?

OBTAIN A JOB? -----

WHICH OCCUPATION? -----

ENGAGE IN FURTHER TRAINING? -----

WHICH OCCUPATION? -----

IF YOU CHECKED THE ABOVE BLANK, WHERE DO YOU INTEND TO RECEIVE FURTHER JOB TRAINING?

VOCATIONAL -----

COLLEGE -----

WHICH SCHOOL? ----- WHICH COLLEGE? -----

ARMED FORCES -----

APPRENTICESHIP TRAINING -----

WHICH BRANCH? ----- INDUSTRIAL TRAINING PROGRAM -----

OTHER (Please Specify) -----

IN YOUR ESTIMATION, HAVE YOU GAINED ANY SKILLS IN THIS VOCATIONAL CLASS THAT COULD HELP YOU GET A JOB? YES \_\_\_ NO \_\_\_ IF YES, WHAT SKILLS:

IN WHICH VOCATIONAL CLASS ARE YOU PRESENTLY ENROLLED?

\_\_\_ BUILDING TRADES

\_\_\_ AUTO MECHANICS

\_\_\_ GENERAL METALS

\_\_\_ HEALTH OCCUPATIONS

\_\_\_ ELECTRICITY/ELECTRONICS

\_\_\_ SALES & DISTRIBUTION

\_\_\_ QUANTITY FOOD OCCUPATIONS

\_\_\_ AGRICULTURAL TECHNOLOGY #2 (animal science, range mgnts)

\_\_\_ AGRICULTURAL TECHNOLOGY #1 (plants, crops, soils)

HAVE YOU PREVIOUSLY ENROLLED IN ANY OF THE MOBILE VOCATIONAL CLASSROOMS? YES \_\_\_

NO \_\_\_ IF YES, PLEASE LIST THOSE WHICH YOU HAVE TAKEN: -----



# Cooperative Activities Outside The Multi-District

The same schools which are participating members of the Northwest Area Schools Multi-District Occupational-Vocational Education Center provide other programs through a cooperative inter-district program, with Lemmon as the contracting district. Governance for those programs, however, is not by the multi-district board. Instead, the local boards of education have delegated considerable control to their administrators, who serve in an advisory capacity to the Lemmon Independent School Board which has final authority and responsibility.

Programs include services of a special education coordinator, school psychologist, four speech and hearing therapists, three early childhood specialists,

and two specialists in learning disabilities. Programs also include Adult Basic Education which provides services of nine teachers. Other adult education includes general interest classes and college extension classes organized and sponsored by the Northwest Area Schools. A clerical staff of two has also been employed.

Name of this cooperative inter-district approach is Special-Adult-Vocational Education (SAVE) of the Northwest Area Schools. Its formation preceded that of the multi-district, and both structures have the same director and business manager. Both also have headquarters in the same offices at Lemmon.

## Center Board & Administrator Statement of Convictions

Both the Center Board and the Administrators Executive Board stated their convictions in separate meetings on April 14, 1976, by each adopting an identical resolution by unanimous vote.

The following resolution "in regard to further development and refinement of educational services" is excerpted from the April 14 minutes of each group.

**WHEREAS**, Northwest Area Schools is a multi-district created under provisions of SDCL 13-39-40, et seq, and offers vocational education programs for the school districts who are members of the multi-district. The same school districts offer special education and adult education services for the same area under agreements authorized pursuant to SDCL 13-15; and **WHEREAS**, SDCL 13-39-33 states, in part: that

multi-district secondary occupational education centers shall have the same power, authority, responsibility and obligations as a school district board, except for the authority to levy taxes and issue bonds; and

**WHEREAS**, The educational and economic advantages of cooperatively providing services such as, but not limited to: special education, adult education, foreign languages, advanced courses in mathematics and natural sciences are of such magnitude; that

**NOW, THEREFORE, BE IT RESOLVED** by Northwest Multi-District that the rules, regulations, and Laws of South Dakota be adjusted to extend the multi-district concept to educationally serve more people and broaden educational services to the people of South Dakota.



**SOUTH DAKOTA STATE BOARD  
OF VOCATIONAL EDUCATION AT  
PROJECT INITIATION, 1973**

Joe H. Floyd ----- Aberdeen  
Patricia Mendel ----- Doland  
Judith Olson ----- Rapid City  
Clifford Strader ----- Sioux Falls  
Charles Stormo ----- Hayti

**SOUTH DAKOTA DIVISION OF VOCATIONAL EDUCATION**

E. B. Oleson, Director

**SOUTH DAKOTA STATE BOARD  
OF VOCATIONAL EDUCATION, 1976**

Charles Stormo, Chairman ----- Hayti  
James Benning ----- Spearfish  
Joe H. Floyd ----- Sioux Falls  
Margaret Moore ----- Rapid City  
Russell Peterson ----- Reville  
Clifford Strader ----- Sioux Falls  
Richard Tschetter ----- Bridgewater

**SOUTH DAKOTA DIVISION OF VOCATIONAL EDUCATION**

E. B. Oleson, Director