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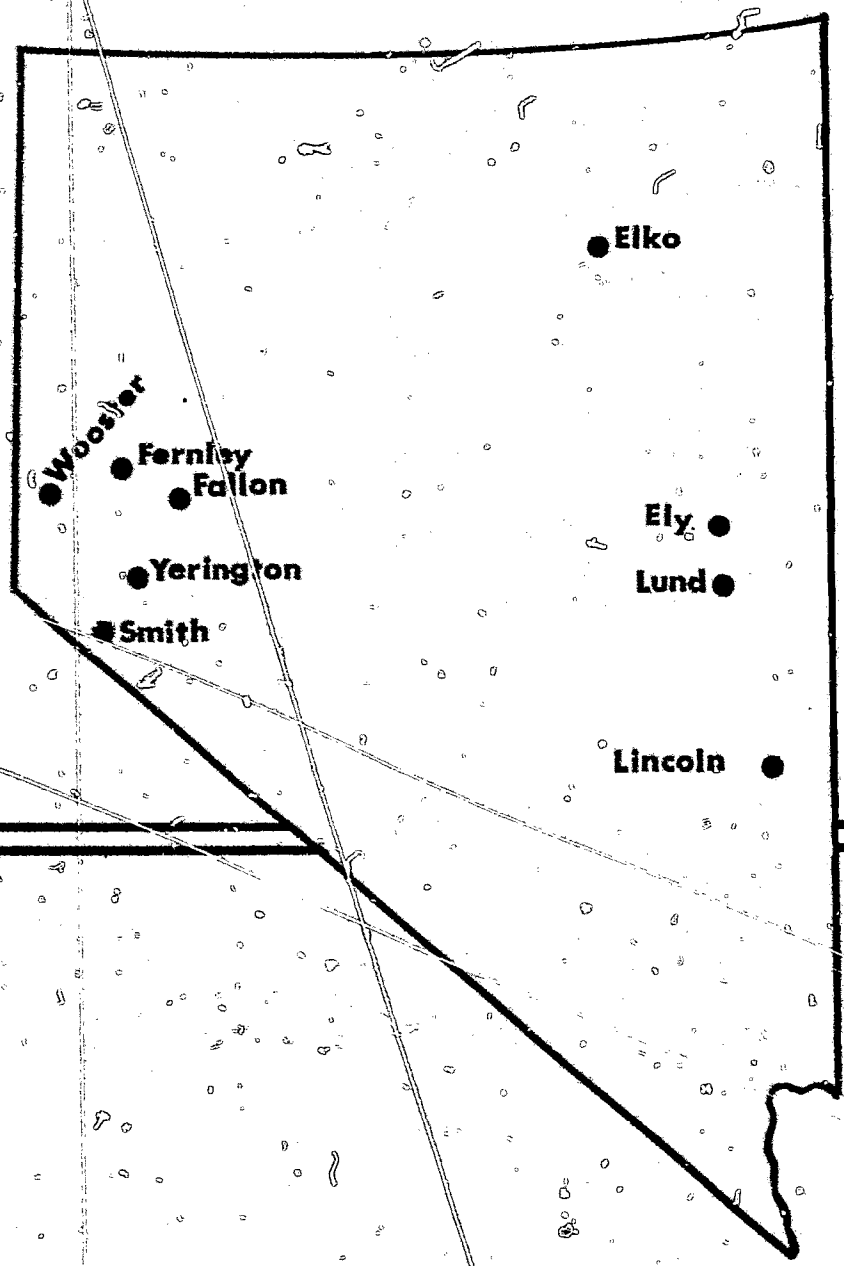
ABSTRACT

To determine improvements needed in vocational programs for male students, a pretested questionnaire was administered to 1,856 boys in grades 9-12 in nine Nevada high schools. The study was further limited to students in vocational agriculture, trades and industry, and distributive education. Some major conclusions and recommendations were: (1) Within limits, students going to work or to vocational-technical schools can be identified, (2) There is a trend in secondary schools to provide more vocational orientation classes and fewer classes for job entry, (3) There is little that can be done in small schools to provide vocational programs in depth to meet the needs of their students, (4) There is a need to redirect almost half of the students who say they plan to go to college and enter a profession into the occupations that require less than a college degree, (5) Parental influence is hard to measure, (6) There needs to be further study of ways and means to determine which students can profit most from vocational classes, and (7) There must be a greater emphasis on providing more adequate postsecondary programs to provide depth of training necessary for job entry. (SB)

A Study To Determine Needed Improvements In Nine Nevada High Schools



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A STUDY TO DETERMINE NEEDED IMPROVEMENTS IN VOCATIONAL PROGRAMS IN NINE NEVADA HIGH SCHOOLS

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1969

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PRIOR RESEARCH AND BACKGROUND INFORMATION FOR THIS STUDY

This study is the culmination of years of work and has grown out of the following studies. In 1965 the researcher did a study of about 400 businesses in Nevada state-wide to determine characteristics of off-farm agricultural employees. A study was made of boys taking Vocational Agriculture in Elko and Wells in the fall of 1967. This was the first experience in the use of this particular type of research. The results obtained were used, along with a citizens advisory committee, in making an evaluation of the two vocational agriculture departments. In the spring of 1968 a research project was completed in Winnemucca which included all of the junior and senior high school boys. This was done at the request of the County Superintendent, Mr. Lyman P. Bruce, to determine needed changes in their vocational programs at the Albert M. Lowry High School. As a result of this study Vocational Agriculture was added to the curriculum.

After the experience in the above schools it was decided to expand the scope of the study. A special reviewing committee from the Vocational-Technical Branch of the State Department of Education and the College of Agriculture refined the questionnaire. It was determined that if the study was to be most effective it must include all the boys in the high school. It was also determined to broaden the scope of the study to include all vocational areas of particular importance for boys.

In May and June of 1968 ten schools agreed to participate in the study. Questionnaires were obtained from 1,365 boys in grades 9-12. These were coded and sent to the University Computer Center for analysis. Due to the work load their immediate attention was not given to the project and part of the students' questionnaires were inadvertently destroyed. After this happened it was decided not to continue with the remaining questionnaires but to start over and make further refinements in the study.

It was decided that the data collected in the schools of Carlin, Gerlach, Owyhee and Wells should be included in the Appendix, part II. The data on these four schools, along with Alamo and Austin, supports the basic conclusions in the body of the study. Five of the other schools, Elko, Fallon, Fernley, Yerington and Smith Valley are included as part of the nine schools in the body of the study. Only Gardnerville was omitted completely.

This study was an outgrowth of all the prior work. The questionnaires from the nine schools, which made up the body of the study, were completed in the early spring of 1969. The occupational categories were reduced to nine and the objectives and procedures were directed more to the vocational aspects of the school program.

LIST OF TABLES IN THE BODY OF THE STUDY

CHAPTER I

ORIENTATION TO THE STUDY

Importance And Justification Of The Study

In our ever changing world of work everyone needs some training to fill most jobs. There are very few job opportunities for the untrained and the unskilled. Individuals who are not trained and who cannot find their place in the present-day world of work have caused great burdens on welfare budgets and have caused many social problems in our society. These problems have become increasingly more acute in the last decade. Vocational-technical education is receiving greater emphasis as one of the primary solutions to unemployment and related social problems.

The Vocational Education Act of 1963 and the amendments of 1968 are a means of increasing the number and quality of vocational-technical programs in the high schools of Nevada. Unfortunately, most of this advancement has been in the larger high schools in the state. One of the fundamental principles of recent vocational-technical legislation is that it is meant for all students regardless of location or socio-economic level.

In planning vocational programs the main assumption is that vocational education has the primary responsibility of providing occupational training for all students in high schools who do not plan to graduate from college or enter an occupation that requires a college degree. Vocational education has two secondary responsibilities: (1) to give some basic training to all high school students to support their academic studies; (2) to assist students in obtaining and holding temporary employment during the period of

time while they prepare themselves for permanent employment. Vocational educational programs must be designed to make students directly employable or improve and develop their knowledge, understanding and competencies which will lead to their eventual occupational success. It should be recognized that in many occupations further training beyond high school is required.

The principal need for this study is found in the uniqueness and limitations of schools of various sizes in Nevada. Some of the main limitations of these schools are listed below:

(1) The wide distribution of population throughout the State of Nevada make it necessary to operate a number of high schools with small enrollments.

(2) The nature of Nevada's main business, tourism and recreation, limits the training of large numbers of students for this business. There is, also, very little industry and manufacturing which employ large numbers of students. The number and size of the companies and firms in most of Nevada are small. This means it is difficult to group students in vocational courses to prepare them for specific employment. This also presents the problem of getting good work experience programs for students.

(3) A high percentage of the graduates from Nevada high schools must find employment in opportunities at great distances from the school.

(4) Most small schools have limited facilities and equipment and do not have financial support for modern vocational programs.

(5) Teachers often do not have enough training to provide the programs in enough scope or depth to meet the needs of the students.

(6) Many small schools are attempting complete comprehensive programs with limited students, thus time is limited to such an extent that poor programs result in many classes.

STATEMENT OF THE PROBLEM

To determine improvements needed in vocational programs of male students in selected Nevada high schools.

Specific Objectives

I. To identify characteristics of male students in selected Nevada high schools as they relate to planning vocational programs.

   a. To determine the tentative occupational choice and educational plans of the male students.

   b. To determine the congruence of the tentative occupational choice by category of the male students with selected measures of consistency of choice.

   c. To determine the type of student work experience and how it relates to vocational choice.

2. To determine the extent to which the schools are providing vocational training in accordance to the expressed vocational choice of the students.

   a. To determine the extent the students' vocational choice by category relates to the number of vocational courses taken.

   b. To determine the extent the vocational choice by category relates to reason for taking vocational classes.

   c. To determine how students evaluate the vocational classes taught in the high schools.

3. To determine the relevance of student vocational choice by category with selected factors in planning vocational programs.

a. To compare student vocational choice by category with expressed student interest in vocational type courses.

b. To determine the relationship of occupational choice by category of students with the actual employment of fathers and brothers.

c. To compare student vocational choice with planned mobility of students.

Assumptions

1. That the student's response to a questionnaire will be reasonably valid.

2. That a high school student's vocational and educational plans are tentative, but they are meaningful in planning vocational programs.

3. Students have a basic knowledge of the employment of their fathers and older brothers and this information will be valuable in planning vocational programs.

Limitations

1. The study will be limited to male students in the ninth through twelfth grades, in the following high schools of Elko, Fallon, Fernley, Smith Valley, Yerington, Ely, Lund, Austin, Alamo and Panaca, and the Wooster High School of Reno. The Wooster High School will only include tenth through twelfth grades.

2. The primary thrust of the study will be on vocational agriculture, trades and industry, and distributive education.

Method

1. There were three principal means used in refining and developing the students' surveys. They were as follows:

   a. Experience gained on a pervious survey used on 865 students in eleven high schools in the Spring of 1968. The data gained from this study is found in appendix part 2.

   b. The questionnaire was pre-tested on 80 vocational students at the Sparks High School.

c. The questionnaires were reviewed by a panel of professors in the College of Education and their recommendations were included. The panel consisted of Drs. Dana Davis, Edwin S. Dodson and Edward E. Loveless.

2. The questionnaire was given in the larger high schools in definite classes. In the smaller schools it was given to all of the students at one time.

3. Each high school principal or counselor provided the number, kind, and length of all vocational classes offered in the high school. This was used as a check against each student's response as to the number of vocational classes he had taken. This helped to curtail duplication.

4. All student questionnaires were hand checked before sending to the computer. Unuseable surveys were eliminated.

5. Dr. Young Koh, Associate Professor of Statistics and Computer Science, directed the programming and computer work.

Definition of the Term "Occupational Choice by Category"

The Appendix, part three, contains a copy of the questionnaire completed by the students. Page one asks the students--which of the following vocations or occupations do you believe best indicates what your actual life's work will be? The student was asked to check the one best answer from nine occupational categories. After much research and sampling we were able to reduce the number to nine. They were designed to be broad in scope since there appeared to be little advantage of great specificity. It also enabled the writer to reduce the number of groups to table them in the manuscript. These categories were designed according to the general education and training required and the similarity in the nature of work.

We did not ask a student to make a specific choice. If the term "student occupational choice" is used it means in all cases in the study "occupational choice by category."

CHAPTER II

ANALYSIS OF DATA

Section 1 - Tentative, Occupational Choice And Educational Plans

Data is valuable only if it is related to some concern. Therefore, the tabulation of the responses to the questionnaires has been arranged to speak to the specific and contributing objectives which were derived from the statement of the problem.

The problem, re-stated, with which this study is concerned is to determine improvements needed in vocational programs of male students in selected Nevada high schools. The first step logically becomes to identify characteristics of those male students, particularly as they relate to planning vocational programs. Tables one through five describe the population considered with reference to their school, grade level, anc vocational plans.

Table One is a simple summary of the students who responded. These are arranged by grade and by school. All of the percentages in the tables are rounded off to the nearest whole number. The totals in the percentage columns are between 99-101%.

TABLE 1

NUMBER OF MALE STUDENTS COMPLETING SURVEYS BY SCHOOL AND GRADE LEVEL IN SELECTED NEVADA HIGH SCHOOLS

Grades	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
9	99	30	72	25	*		87	25	5	21	24	32
10	81	25	72	25	206	39	100	28	4	17	21	28
11	84	26	72	25	179	34	101	29	7	29	18	18
12	66	19	70	24	146	27	63	18	8	34	12	12
TOTAL	330		286		531		351		24		75	

TABLE 1 - CONTINUED

Grades	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
9	51	30	14	23	8	29	360	19
10	50	29	18	30	9	32	561	30
11	29	17	15	25	6	21	511	28
12	40	24	14	23	5	18	424	23
TOTAL	170		61		28		1856	

*Wooster is the only school in the study that omits the 9th grade.

Table Two shows the number and percentage of boys in each of the selected high schools who indicated vocational choices in the various categories. In some categories, the off-farm agricultural business, business and public service, there are no significant differences among schools. However, in other cases there do appear to be important differences. For instance, in Lund High School disproportionately high percentages of boys indicated plans to enter farming or ranching and the category of transportation, mining, etc., at the expense of entry into professions (excluding agricultural professions). However, the small size of the school means that two or three responses can drastically alter the picture. Furthermore, comparison with the stated occupations of their fathers (see Table 44) should be made.

What appears to be a significantly high number of Lincoln High School boys who plan to enter agricultural professions may again be related to the size of the school; a very few boys can influence the distribution markedly. The same situation obtains in reference to Smith High School boys' choice of the occupation of technician and the large percent of Fernley boys who indicated a preference for the skilled trades. In the last case, there is again a discernible relation to the fathers' occupations.

It is noteworthy that in none of the larger schools is there any percent which differs significantly from the overall picutre. Certainly one factor to be considered is that in the larger schools the effect of a single recent experience or the enthusiasms of an individual teacher are greatly diluted. The repetition of this question at another time might well yield very different results in the small schools. Therefore, apparently significant differences may probably be disregarded since they occur only in the four smallest schools in the survey.

The totals raise the question of how realistic these occupational choices can be. In combining the categories of agriculture related professions and other professions, one finds a total of 40 per cent. This is unreasonable in light of the national estimate of 20 per cent or less of the employment slots requiring a college degree. Locally this may vary considerably. In Las Vegas, for instance, it has been suggested that no more than seven per cent of the employment slots require a college degree. Conversely, the area of business (sales and service) was chosen by only six per cent. Even when added to the ten per cent opting for public service, this figure is ridiculously low, particularly in a state with such a heavy reliance on tourism as Nevada.

The figures naturally do not show the sources of the students' choices. Undoubtedly these are many and complex. However, a comparison of the students' occupational choices with the total employment picture, locally, state-wide, regionally and nationally, indicates that there is a great discrepancy.

TABLE 2

MALE STUDENTS' OCCUPATIONAL CHOICE BY CATEGORY IN SELECTED NEVADA HIGH SCHOOLS

Occupational Categories*	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Farming or Ranching	43	13	37	13	14	3	11	3	7	29	6	8
Off-farm Agr. Business	9	3	1	+	1	+	3	1	1	4	0	
Business (Sales & Service)	12	4	21	7	54	10	19	5	0		0	
Skilled Trades	87	26	50	17	73	14	90	26	5	21	13	17
Transportation, Mining, etc.	26	8	27	9	32	6	34	10	5	21	2	3
Technician	18	5	22	8	33	6	33	9	0		8	11
Public Service	29	9	13	5	65	12	34	10	1	4	11	15
Agr. Related Professions	34	10	34	12	78	15	31	9	3	11	14	19
Other Professions	72	22	77	27	180	34	94	27	2	8	21	28
TOTAL RESPONDING	330		282		530		349		24		75	
NO RESPONSE**	0		4		1		2		0		0	

TABLE 2 - Continued

Occupational Categories*	Yerington No.	Yerington %	Fernley No.	Fernley %	Smith No.	Smith %	Schools Combined Grade Level By % 9	10	11	12	Totals No.	Totals %
Farming or Ranching	11	7	4	7	3	11	9	9	5	7	136	7
Off-Farm Agr. Business	3	2	1	2	0		1	1	2	0	19	1
Business (Sales & Service)	9	5	3	5	0		4	4	8	9	118	6
Skilled Trades	36	21	22	36	7	25	23	20	22	19	383	21
Transportation, Mining, Etc.	3	2	4	7	2	7	8	7	7	7	135	7
Technician	12	7	4	7	6	21	8	7	6	9	136	7
Public Service	23	14	4	7	2	7	10	10	12	6	182	10
Agriculture Professions	24	14	7	11	4	14	13	15	12	9	229	12
Other Professions	48	28	12	19	4	14	23	27	26	34	510	28
TOTAL RESPONDING	169		61		28		358	558	509	423	1,848	
NO RESPONSE++	1		0		0		2	3	2	1	8	

*Broad categories which indicate general types of occupations. In selecting these broad categories they were grouped according to common types of educational programs usually available for training for these occupations.

+Insignificant

++Includes the number of students who did not respond or their questionnaires were not readable, etc.

Table Three gives the plans of students upon leaving high school and fulfilling possible military obligations. Again there is nothing to really distinguish among schools. A higher proportion of Fernley students plan to go directly to work without benefit of further education. Again this apparently significant finding may well be an artifact of the small size of the school coupled with its location and a rather large number of Indian students who make up the student body.

The important information again comes from the totals. As in Table Two there seems to be an unrealistic level of aspiration. Fifty-eight per cent of the students indicate plans to graduate from a four-year college. While the number of people attending college has been increasing dramatically, only 6+ per cent of the population 25 years and older holds a college degree. Furthermore, various statements have been made about the level of academic ability needed to succeed in college; none of these is low enough to include 58 per cent of the population. Again there is no indication of the source of these expectations; again it is probably a combination of many complex factors. However, it does raise a serious question concerning vocational guidance and counseling practices.

Another point indicated in the table is that the percentage of students planning to go to college, trade or technical school, or directly to work is about the same for each grade in school. Twenty-five per cent of 9th, 10th, and 12th grade plan to attend a trade or technical school. The 11th grade is only slightly higher.

TABLE 3

LONG-RANGE PLANS OF MALE NEVADA HIGH SCHOOL STUDENTS
AFTER LEAVING HIGH SCHOOL AND COMPLETING MILITARY SERVICE

Future Plans	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Graduate 4-Yr. College	70	52	161	57	354	68	167	49	10	42	50	67
Trade or Tec. School	95	29	75	27	90	17	131	38	10	42	19	25
Directly to Work	61	19	47	17	73	15	45	13	4	16	6	8
TOTAL RESPONDING	326		283		517		343		24		75	
NO RESPONSE	4		3		14		8		0		0	

TABLE 3 - Continued

Future Plans	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Graduate 4-Yr. College	99	58	28	46	16	56	57	60	55	58	1055	58
Trade or Tec. School	43	25	14	23	7	25	25	25	31	25	484	26
Directly to Work	28	16	19	31	5	18	17	16	14	17	288	16
TOTAL RESPONDING	170		61		28		356	554	501	417	1827	
NO RESPONSE	0		0		0		4	7	10	7	29	

Table Four lists the locations of trade or technical schools which were named by those students who in Table Three stated their intention of attending such an institution. Again, the only great difference among schools is offset by the extremely small size of the school in question (Smith). When the decision of a single student alters the statistics by 15 per cent, as is the case when only seven students are involved, ordinary computations do not give an accurate picture.

There are two points of interest which are brought out by this table. The first is how clearly it mirrors the lack of trade and/or technical schools in Nevada. Of those whose plans are sufficiently definite to be thinking in terms of names and locations of schools, 83 per cent are planning to go outside of the state. The other fact is a confirmation of what one would hope to be the case: the students of each grade are more definite in their planning than those of the preceding grade. Of those planning to attend a trade or technical school, 16 per cent of ninth graders, 26 per cent of tenth graders, 43 per cent of eleventh graders and 65 per cent of twelfth graders were able to indicate a name and location.

TABLE 4

LOCATIONS OF VOCATIONAL AND TECHNICAL SCHOOLS GIVEN BY MALE NEVADA HIGH SCHOOL STUDENTS PLANNING TO ATTEND SUCH SCHOOLS*

Locations	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
States Other Than Nevada	25	83	24	89	23	77	54	87	3	100	6	86
Reno-Univ. of Nevada Tech. Inst. & Col. of Ag.	5	17	3	11	6	19	6	10	0		1	14
So. Nev. Voc. Tech. Center	0		0		1	4	2	3	0		0	
TOTAL RESPONDING	30		27		30		62		3		7	
% INDICATING SCHOOL**		32		36		33		47		33		36

TABLE 4 - Continued

Locations	Yerington		Fernley		Smith		Schools Combined Grade Level By %				Totals	
							9	10	11	12		
	No.	%	No.	%	No.	%					No.	%
States Other Than Nevada	14	78	3	75	3	75	93	78	85	85	155	83
Reno-Univ. of Nevada Tech. Inst. & Col. of Ag.	4	22	1	25	1	25	7	19	14	14	27	15
So. Nev. Voc. Tech. Center	0		0		0		0	3	1	1	3	2
TOTAL RESPONDING	18		4		4		14	36	66	69	185	
% INDICATING SCHOOL**		42		28		57	16	26	43	65		38

*This table only includes students who indicated they planned to attend a special vocational or technical school. Table 3 alternative 2.

**Percentage of students who listed the name and location of a school; for example, in Fallon, 30 of 95 gave the name of the school or 32%

Table Five shows the relationship of students' future plans to their occupational choice. On the whole, this relationship appears to be realistic. That is, the students apparently realize the type of education necessary to enter the occupation of their choice. For instance, of those giving skilled trades, transportation and mining (which were defined in the questionnaire as possibly requiring advanced training) as their choice, over 75 per cent have indicated plans to acquire further education. Over 80 per cent of those who wish to become technicians state they are going to attend either a trade school or a college. While there are admittedly some 56 students who intend to enter a profession on the basis of high school or trade school only, this is only some 7 1/2 per cent of the total planning professional life. Even more striking, this group, which is the only group of which it can be definitely stated that they are not realistically relating education to occupation, is only three per cent of the total sample. Of the others, the tendency, as discussed in reference to Table three, is to plan a college education when it is not necessary, or perhaps even desirable. As an example, 22 per cent of those selecting the fields of skilled trades, transportation and mining intend to go to college. This seems to indicate some possible confusion as to the type of education necessary for entry into the occupation as well as misunderstanding of the scope of a college education.

TABLE 5

THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS GROUPED ACCORDING TO THEIR PLANS AFTER LEAVING HIGH SCHOOL

Occupational Groups*	Future Plans							
	Directly to Work		Trade School		College		Combined+	
	No.	%	No.	%	No.	%	No.	%
Production Agriculture Off-Farm Ag. Business	56**	36	32	22**	63	41**	154	8
Skilled Trades Transportation & Mining	120	24	277	55	109	22	506	28
Business (Sales & Service) Public Service	88	31	69	24	130	45	287	16
Technician	9	7	59	44	66	49	134	7
Agriculture Professions	9	4	23	10	196	86	228	13
Other Professions	4	1	20	4	486	95	510	28
TOTAL - 3 Categories in Future Plans	286		483		1,050		1,819	
PER CENT OF TOTAL		16		27		58		

*The occupational categories in Table Two have been combined to make six groups rather than nine. These combinations were made for two reasons (1) to shorten the table and (2) students in these areas require similar training, and the basic type of work is generally similar.

+Includes a total of each category added on a horizontal line. This is the only column where vertically and the percentage that each occupational group is of the total.

**The percentage is calculated on a horzontal line basis only and includes only the three categories under future plans.

CHAPTER II

Section 2 - Consistency of Male Students' Occupational Choice By Category

The first contributing objective, that of identifying occupational choice and educational plans of the subject has been well covered in Tables One through Five. The second contributing objective, to determine the congruence of these choices, will be the subject of Tables Six, Seven, and Eight.

In order to determine congruence or consistency, each survey was reviewed by the author and a code was applied to the following questions: (1) How sure are you of your occupational Choice? (2) What are your educational plans? (3) What do you anticipate your occupation will be in about ten years? Five categories were then determined and coded as follows: (1) The vocational choice and the three measures of consistency coincide; (2) there is general consistency, but the student appears to be unaware of the education appropriate to his occupational choice; (3) future occupational plans are not congruent with expressed occupational choice; and (4) the occupational choice and three measures of consistency do not coincide and there is no consistency in the occupational choice.

Table Six indicates again that the students compare well across schools. That is, only one school, Lund, departs at all from the pattern of the others. Here there seems to be less congruency, greater lack of confidence in vocational choice and less awareness of training needed for various occupations. However, it must again be emphasized that the small size of the sample makes for distortion. Five boys can completely change the distribution in Lund. Nevertheless, this situation might warrant further investigation within

the school.

Since, generally speaking, the differences among schools are not significant, attention must be given to the totals. The percentage of students who display congruency seems inadequate. Only 57 per cent of the total sample show this consistency on all criteria. There is some slight encouragement in the fact that 63 per cent of the seniors apparently are approaching the situation realistically. They are only slightly more consistent than the other grades. In reviewing the three measures of consistency the seniors appear to be more sure of their occupational choice than the other grades.

One must be aware that the bulk of these respondents will have military obligations to fulfill; it may be, in light of present emphasis on the extensive training programs offered by various branches of the service, that many students are looking to this to help resolve their uncertainties. By and large, however, there seems to be an underlying lack of knowledge about the world of work.

TABLE 6

CONSISTENCY OF STUDENT RESPONSES TO QUESTIONS ASSOCIATED WITH STUDENTS' OCCUPATIONAL CHOICE

MEASURES	Code	Numbers and Percentages of Students by School											
		Churchill		Elko		Wooster		Ely		Lund		Lincoln	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Voc. Choice & 3 Measures of Consistency Coincide*	1	192	59	173	61	309	59	185	55	9	41	39	53
Student Is Not Sure of His Vocational Choice**	2	36	11	61	21	62	12	58	17	6	27	6	8
Student Is Not Aware of The Training Needed For His Chosen Profession +	3	29	9	9	3	24	4	6	2	3	14	5	7
Student Future Employment Plans Are Not Consistent With His Expressed Occupational Choice ++	4	18	5	18	6	36	7	40	12	2	9	4	5
Voc. Choice and Three Measures Are Inconsistent	5	52	16	22	8	97	18	46	14	2	9	20	27
TOTAL RESPONDING		327		283		528		335		22		74	
NO RESPONSE		3		3		3		16		2		1	

TABLE 6 - Continued

MEASURES	Code	Yerington No.	Yerington %	Fernley No.	Fernley %	Smith No.	Smith %	Schools Combined Grade Level By % 9	10	11	12	Total No.	Total %
Voc. Choice & Three Measures of Consistency Coincide *	1	89	57	29	51	15	54	55	59	53	63	1,040	57
Student Isn't Sure of His Vocational Choice **	2	18	12	7	12	3	11	17	13	18	9	257	14
Student Is Not Aware of The Training Needed For His Chosen Profession +	3	4	3	2	4	2	7	5	5	3	5	84	4
Student Future Employment Plans Are Not Consistent With His Expressed Occupational Choice ++	4	10	6	6	11	2	7	5	7	9	8	136	8
Voc. Choice and Three Measures Are Inconsistent	5	34	22	13	23	6	21	18	16	16	15	292	16
TOTAL RESPONDING		155		57		28		354	546	502	407	1,809	
NO RESPONSE		15		4		0		6	15	9	17	47	

* This was determined by the fact that the student indicated that he is fairly sure; his choice of a school; what he plans to do 10 years hence; are all consistent and relate directly to his occupational choice by category.

** Code 3 and 4 were consistent with 1.

+ Code 2 and 4 were consistent with 1.

++ Code 2 and 3 were consistent with 1.

Table seven again points up the lack of realistic thinking among the boys surveyed.

One of the questions the author wanted to explore was to determine the extent that male high school students were realistic in their occupational choice by category. It was apparent to the researcher after the computations were complete that grades in English and mathematics should have been included as the fourth measure of consistency. Since this was not done the effect of grades are considered in Table eight.

From the information in Table seven, it would appear these generalizations can be made: (1) 58% of the male students are consistent in their occupational choice. (2) 26% are partially consistent. (3) 15% are inconsistent or confused.

Table seven pinpoints the problem of counseling students who expect to go directly to work as compared to the college bound student. The primary meaning in the table is found in (line 1) per cent consistency, contrasted with (line 3) per cent inconsistency. The college oriented group showed the greatest consistency (62%) contrasted with the least inconsistency (12%). These percentages are greatly different than the group of students who indicated they were going directly to work. Only 44% of this group were consistent, contrasted with 25% who were inconsistent. The students planning to go to a trade or technical school showed more consistency than students going directly to work, but they were not as consistent as the college oriented group. The question as to whether the high school counselor is doing a better job of counseling the college bound student because he himself is academically oriented needs further study.

It is obviously apparent that students planning to go directly to work are not sure of themselves and need special attention and help which unfortunately they usually are not getting. The information in Table seven does not answer the following questions: (1) Will the boys going to work accept help or counsel? (2) What can the school do to assist these students with its current limitations?

The reason why there is a high rate of inconsistency in students planning to go to work may be the phenomenon being illustrated by a combination of distaste for further education and unrealistic vocational aspirations, and a general futility in not knowing which way to turn. The data in Table eight indicates this group of students realize college is not for them because of their low grades in English and mathematics.

Of perhaps even greater concern is the 12 to 26 per cent of college-bound boys who show inconsistency in their vocational choices. If their vocational plans are not suitable and realistic, they should not be planning to attend college; they should have received counseling toward a different course of action. If, on the other hand, they truly are college material, having the aptitude, financial ability and motivation for this course, their choices of occupation need revision. In any case, it appears that they have not received adequate and accurate information. To obtain information is not only the responsibility of the counselor, but the vocational teacher as well. Vocational teachers in many situations have not assumed their responsibility in assisting students to become prepared and make an entrance into the world of work. Vocational teachers must assume their rightful role in the guidance of students. The problem of counseling and guiding students into useful employment must be a cooperative effort for both counselors and teachers; neither can do the job effectively alone.

TABLE 7

THE CONSISTENCY OF STUDENTS' OCCUPATIONAL CHOICE GROUPED ACCORDING TO STUDENTS' FUTURE PLANS AFTER LEAVING HIGH SCHOOL AND COMPLETING MILITARY SERVICE

Consistency*	Future Plans*							
	Directly to Work		Trade or Tech.		College		Combined	
	No.	%	No.	%	No.	%	No.	%
Vocational Choice & Three Measures Of Consistency Coincide +	127	44	279	59	634	62**	1040	58
Vocational Choice & Two Measures Of Consistency Coincide ++	86	30	119	25	265	26	470	26
Vocational Choice & Three Measures Are Inconsistent +++	71	25	74	16	126	12	271	15
TOTAL OF THREE CATEGORIES IN FUTURE PLANS	284	100	472	100	1,025	100	1,781	
PER CENT OF TOTAL **		16		27		58		

*Information contained in Tables Three and Six.

**Includes percentage in each of the three categories in future plans.

+Table Six, Code 1.

++Table Six, Code 2,3,4 Combined

+++Table Six, Code 5.

Table Eight presents more evidence on the realism or lack thereof of the educational plans of the subjects. The first point which meets the eye is how closely the grades (English and mathematics combined average) approximate a normal distribution. However, of much greater salience is where each group (those going directly to work, those planning to enter trade school and the college-bound) falls in terms of grade averages. One might well argue that this tends to be irrelevant for those planning to enter the world of work without further education. Practically, of course, one would expect to find more of these among those with lower grades, and such indeed seems to be the case. In those opting for trade or technical schools, there is a spread along the scale with the bulk achieving averages of "C" and "D." Again, this is as expected; trade or technical schools generally do not hold to the rigid entrance requirements of other institutions.

In attempting to measure consistency of students' occupational choice, it appears from the grades of students going to work and on to trade or technical schools that they are basically realistic in not desiring to graduate from a four-year college. The problem is how can students who plan to go directly to work be trained to enter and hold satisfactory employment.

The major concern must be with the large group who signified their intention of graduating from a four-year college. Four-year colleges do have entrance requirements as to the grade point average earned in high school over a minimum number of academic credits. The University of Nevada, Reno, sets a cut-off point of 2.3, which is slightly above a "C." It would seem reasonable to assume that the English and mathematics grades are probably pretty typical of the overall grade point average. If this proves to be

the case, there are some 66 per cent of the boys who intend to graduate from a four-year college who do not even meet the standards for entering the one in their home state.

Over and over the facts elicited in this survey point out that a large number of high school boys are planning to graduate from a four-year college when all the evidence shows this to be unrealistic on many criteria. Some study needs to be made of the sources of these aspirations; some study must be made of how to bring them into line with reality.

Note to the reader: Twenty three out of fifty tables are designed similar to tables 7 and 8. The purpose of these tables is to determine how the students who responded to one question responded to a directly related question. This type of analysis is possible by using the computer. In referring to the totals in each table separately there is usually a slight difference in the totals. The totals in the table which includes a comparison of the responses to two separate questions is lower than where only one question is tabulated. To make the totals match perfectly the same number of students would have had to answer both questions. This was not the case. In table 3 for example, 1055 students expected to attend college, 484 students expected to attend a trade school and 288 students indicated they were going directly to work. The corresponding figures in table 8 are 1048, 474 and 285 respectively. It should be noted however the percentages in each category in each table are the same. In all of the similar tables which compare student responses to two different questions they do not match perfectly but the percentages are usually the same or will vary not more than one percent.

TABLE 8

THE PLANS AFTER LEAVING HIGH SCHOOL OF MALE STUDENTS GROUPED ACCORDING TO THEIR GRADES IN ENGLISH AND MATHEMATICS

Plans After High School	Average Grades* A No.	A %	B No.	B %	C No.	C %	D No.	D %	F No.	F %	Combined No.	Combined %
Directly to Work	1	+	24	8	139	49	111	39	10	3	285	16
Trade or Tech. School	5	1**	52	11**	236	50**	171	36**	10	2**	474	26
Graduate 4-Year College	65	6	292	28	531	51	153	15	7	1	1,048	58
TOTAL WITH EACH GRADE	71		368		906		435		27		1,807	
PER CENT OF TOTAL		4		20		50		24		1		

*Students were asked to give their average grades for all classes in both English and mathematics. These were coded and averaged to determine the above.

+Insignificant

**The percentage is calculated on a hortizontal line basis only, and includes only the five categories in average grades.

CHAPTER II

Section 3: Student Work Experience Extent and Importance

The third contributing objective in the identification of the students' characteristics as they relate to planning vocational programs concerns student work experience. Specifically, this objective is stated as "To determine the type of student work experience and how it relates to vocational choice."

Obviously, in determining type of work experience and relation thereof to vocational choice, the first step is to separate out those students who have indeed had work experience. Examination of Table Nine shows that 55 per cent of the boys participating in the study were employed. Again, while there are differences among schools, those differences are probably in large measure a product of local factors. Owing to the extremely small size of the widely divergent schools, none of these differences can be considered significant.

As expected, there is a steady increase in per cent employed from ninth through twelfth. As the boys grow older they are more able to find employment. It should be noted that the big change is between the 10th and 11th grade. Students usually are 16 years old when they are in the 11th grade and thus are favored by the laws regulating certain employment.

Table 10 includes only students who worked in the summers while Table 9 those who worked only during the school year. They show that 562 more students worked in the summer. This meant 85 percent worked productively in the summer compared to 55 percent during the school year.

TABLE 9

MALE STUDENT EMPLOYMENT IN SELECTED NEVADA HIGH SCHOOLS DURING THE SCHOOL YEAR 1968 - 1969

Employment	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Number employed	204	62	163	58	263	50	184	53	20	83	33	46
Did not work	124	38	120	42	264	50	165	47	4	17	38	54
TOTAL RESPONDING	328		283		527		349		24		71	
NO RESPONSE	2		3		4		2		0		4	

TABLE 9 - CONTINUED

Employment	Yerington		Fernley		Smith		Schools Combined					
							Grade level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Number employed	91	53	30	50	21	75	48	49	57	67	1009	55
Did not work	79	46	30	50	7	25	52	51	43	33	831	45
TOTAL RESPONDING	170		60		28		356	554	509	421	1840	
NO RESPONSE			1				4	7	2	3	16	

Table Ten discusses the employment held by students during the summer of 1968. Of those who were employed, three-fourths worked for employers other than their parents. However, as might be expected, the per cent of those who worked for their parents generally was higher in the rural areas. In areas which are more sparsely populated, there would tend to be more self-employment, as agriculturalists or proprietors of small businesses. Thus parents could more readily employ a son during the summer months. This plan of operation has many advantages. It is also noteworthy that in the one urban high school the per cent of unemployed was considerably higher, in fact almost to the point of statistical significance.

The figures also show that the per cent of students employed by other than parents increases steadily as students progress through the grades. During this same time span both employment by parents and unemployment decrease. Again the data merely supports the common-sense view. The younger boys are less able to find work; in some cases parents will hire them because it is in accord with their philosophy of child-rearing or as a form of subsidy. As the boy grows older, he is better able to find and hold outside employment. An analysis of the percentage of students who worked for their parents both with and without a definite wage was determined. This was not included in table 10. There was a larger percentage of students who did not receive a definite wage compared to those who did. As the students grow older the percentage receiving a definite wage increased compared to those who did not receive a definite wage.

Students who worked for their parents	Grades 9	10	11	12
Without a definite wage (in per cent)	20	12	8	5
With a definite wage (in per cent)	10	12	9	7

TABLE 10

MAJOR EMPLOYERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS DURING SUMMER 1968

Employers	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Employers other than parents for a definite wage	204	62	198	69	335	63	226	64	18	75	54	74
Parents	84	25	61	31	84	16	74	22	5	31	13	18
Did not work	40	12	26	9	111	21	51	14	1	4	6	8
TOTAL RESPONDING	328		285		530		351		24		72	
NO RESPONSE	1		1		1		0		0		3	

TABLE 10 - CONTINUED

Employers	Yerington		Fernley		Smith		Schools Combined					
							Grade level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Employers other than parents for a definite wage	105	63	41	79	10	36	50	59	70	79	1191	64
Parents	34	20	11	19	15	54	30	24	17	12	381	21
Did not work	30	18	7	12	1	11	19	17	13	10	306	16
TOTAL RESPONDING	169		59		28		356	557	511	422	1846	
NO RESPONSE	1		2		0		4	4	0	2	10	

Table 11 speaks to the sources of help used by the boys who were employed by someone other than their parents. Unfortunately, the only conclusions which can be drawn from the data are negative. Ninety-one per cent of the boys got their jobs through their own efforts or with the information and assistance of parents and/or friends. In only one area, Fernley, did the Employment Security Department appear to offer help to any appreciable extent. It can be speculated that there may be in that office an individual who is interested in the problem. The contribution made by vocational teachers and guidance counselors was negligible.

It would appear that there is a lack which needs some real study and work. Whether this type of assistance is the responsibility of some group which is failing to meet it or whether in fact it is an open area should be explored. If the former is the case, steps should be taken to rectify the situation. If the latter is the case, some plan of action should be determined. There are many reasons for believing it is beneficial to youth to be employed. If this is so, then all possible assistance should be given them in their quest for employment.

TABLE 11

SOURCE OF HELP IN GETTING JOBS FOR MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS*

Sources	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Self, Parents or Friends	194	95	176	89	311	93	199	88	17	94	47	86
Employment Security Dept.	5	2	17	9	14	4	24	12	1	6	5	9
Vocational Teacher	4	2	4	2	5	1	2	1	0		0	
Guidance Counselor	1	1	1	0	5	1	1	0	0		2	4
TOTAL EMPLOYED*	204		198		335		226		18		54	

TABLE 11 - Continued

Sources	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Self, Parents or Friends	95	90	32	78	18	100	94	92	89	87	1,089	91
Employment Security Dept.	10	10	9	22	0		5	7	10	11	85	7
Vocational Teacher	0		0		0		0		1	2	15	1
Guidance Counselor	0		0		0		1	+	0	1	10	1
TOTAL EMPLOYED*	105		41		18		197	123	115	113	1,199	

*Includes only students who worked for someone other than parents, alternative 1 of Table 10.

+Insignificant

The figures which appear in Table 12 are meaningful only as an index to the local situation. For instance, in Smith, 82 per cent of the boys were employed in agricultural production. However, this should not be interpreted as a measure of the occupational choice of Smith High School boys; rather it should be considered as descriptive of jobs available to teen-aged boys in this area. The same general reasoning applies to the distribution of employment of the Wooster High School boys. That is, the bulk of employment there is in business and other. In the urban setting of Reno, this is where the opportunities are.

The apparent shift in employment over-time is also at least partially an artifact of the situation. Reasons have already been discussed for the drop in unemployment rates. Much the same reasoning holds for the apparent shift away from agricultural production toward business and mechanics and construction. Laws, safety considerations and employer opinions all play their parts in determining what employment is suitable for each age group.

TABLE 12

TYPES OF EMPLOYMENT OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS DURING THE YEAR OF 1968-1969

Types of Employment	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Business	78	24	100	35	203	38	115	33	0		18	24
Ag. Production	114	35	69	24	35	7	38	11	19	79	23	31
Other	36	11	48	17	101	19	59	17	1	4	13	17
Mechanics & Const.	26	8	14	5	46	9	40	11	1	4	3	4
Off-Farm Ag. Business	18	6	6	2	16	3	18	6	1	4	4	5
Did Not Work	54	16	31	11	127	24	78	22	2	8	9	12
TOTAL RESPONDING	326		268		528		348		24		70	
NO RESPONSE	4		18		3		3		0		5	

TABLE 12 - Continued

Types of Employment	Yerington No.	Yerington %	Fernley No.	Fernley %	Smith No.	Smith %	Schools Combined Grade Level by % 9	10	11	12	Total No.	Total %
Business	36	21	12	20	1	4	18	26	38	38	563	31
Ag. Production	41	24	17	28	23	82	25	22	20	18	379	21
Other	24	16	8	13	1	4	16	17	14	18	294	16
Mechanics & Const.	14	8	8	13	3	11	6	7	9	12	155	9
Off-Farm Ag. Business	10	6	2	3	0		4	5	4	3	75	4
Did Not Work	35	21	12	20	0		30	23	15	10	348	19
TOTAL RESPONDING	163		59		28		348	548	501	417	1,814	
NO RESPONSE	7		2		0		12	13	10	7	42	

Table 13 compares the expressed occupational choices of the students with the types of employment they held during the year 1968. It must be noted that student employment is always limited by what is available. For instance, the student who has stated that he wishes to enter a profession is not going to be employed in that profession during his high school years. There are two common definitions of profession: that a college degree is required or that a license is required. In neither case can the high school student qualify, and thus he cannot gain part-time employment in his chosen field. To a large extent the same will be true of the boy who wishes to become a technician or enter a skilled trade.

There are other limiting factors. Boys of this age largely lack the mobility they will have as adults; generally they must seek employment near their homes. Therefore, the boy who wishes eventually to farm may not be able to work on a farm after school or during the summer if his residence is urban. Conversely, of course, certain urban occupations are closed to the rural high school boy.

In spite of these limitations, however, many of the correlations between part-time employment and occupational choice are significantly high. For instance, of those boys who opted for Production Agriculture and Off-farm Agricultural Business, 87 per cent are actually employed in these categories. (This is based on those boys who are employed anywhere.) Again, of those declaring their choice to be Business or Public Service, 54 per cent of those employed are employed in Business. Those boys who indicated a desire to enter a profession are employed, as would be expected, largely in Business or Other, rather than in Agriculture, Mechanics, or Construction.

Generally speaking, then, there is considerable consistency demonstrated. Further study would be needed to reveal whether the occupational choice was based on employment experience or whether there was a deliberate attempt to seek employment in the field of occupational choice. There is some slight evidence in favor of the latter. As stated above, the high school boy cannot readily find part-time employment in the professions or the skilled trades, yet nearly a half of the boys indicated their choice of these fields. This would tend to suggest that, at least for these boys, a satisfactory employment experience was not the basis of future occupational plans.

Explanation in reading Table 13

The combined totals for each line is the number of students who selected that particular occupational category or categories. For example, of the 142 students who selected the occupational categories agricultural production and off farm agr. business, 117 or 82 per cent were employed during 1968 in agricultural production. Another example is 184 students or 46 per cent of the 402 students who selected the category other professions, worked in a business (sales or service).

Of the 1,461 students in 1968 who were employed or worked productively 378 or 26 per cent were employed in agriculture production and 563 or 39 per cent worked in business (sales or service).
Page 26 gives further information on reading this type of table.

TABLE 13

THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS GROUPED ACCORDING TO THE TYPE OF EMPLOYMENT DURING THE YEAR 1968

Occupational Groups	Type of Employment										Combined Total	
	Agricul. Prod.		Business		Mechanics or Constr.		Off-farm Agr. Bus.		Other			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Production Agriculture Off-farm Agr. Business	117	82	9	6	3	2	7	5	6	4	142	10
Skilled Trades Transport. & Mining	93	22	151	36	70	17	24	6	79	19	417	29
Business (Sales & Serv.) Public Service	38	18	116	54	9	12	12	6	30	14	215	15
Technician	19	18	43	41	13	12	8	8	22	21	105	7
Agriculture Professions	56	31	60	33	16	9	12	7	36	21	180	12
Other Professions	55	14	184	46	32	8	12	3	119	30	402	27
TOTAL EMPLOYED	378		563		153		75		292		1461	
PER CENT OF TOTAL		26		39		10		5		20		

See page 38 for explanation in reading table.

CHAPTER II

Section 4 - Relationship of Vocational Courses Taken and Occupational Choice by Category

The second major objective is to determine the extent to which the schools are providing vocational training in accordance with the expressed vocational choice of the students. Again this is arrived at by determining three component objectives and providing data for each. The first contributing objective is to determine the extent to which the students' vocational choice by category relates to the number of vocational courses taken.

The researcher found it most difficult to determine the exact number of vocational classes taken by each student. This information was obtained from the student and irregardless of how the questionnaire was constructed there was some problem in the student's mind on how to complete it. There are several reasons why this information is difficult to obtain. They are as follows: (1) there is a wide variety of combinations of subject matter with similar, yet different, course titles, (2) there are many different lengths of courses, such as one semester, one year, double and triple periods (Table 14) for the same type of course, (3) there is a difference in basic philosophy of administrators and counselors of the purposes and expected outcomes of their vocational programs. Part of this difference results from the local situation which is effected by such things as labor unions, size of the school, staff and finance and all factors combined which influences the total capability to provide vocational programs.

In order to check student responses and curtail duplication the information in Table 14 was obtained from the high school counselor or principal at the time the questionnaires were administered in the school. This was most helpful but there could have been some duplication in some students surveys.

Table 14 does not contain all of the vocational or vocational orientation classes offered in many schools. The difference between vocational classes and vocational orientation classes and the importance of the distinction between the two will be discussed on page 43. One problem is that it is difficult to identify vocational classes. For the purpose of this study the researcher took the schools' interpretation of what they considered to be vocational. Examples of some of the additional classes not included in the table are as follows:

Vocational or Technical English	Churchill
Introductory Aeronautics	Churchill
Photography	Churchill
Surveying	Elko
Computer Programming	Elko, Wooster
Small Gas Engines	Fernley

Many schools offer one semester courses in electrical wiring. To some extent these were included with wood working and carpentry in the table.

TABLE 14

TYPE AND LENGTH OF VOCATIONAL PROGRAMS OFFERED FOR MALE STUDENTS
IN SELECTED NEVADA HIGH SCHOOLS

Schools	Kinds, Types, and Lengths of Vocational Programs																							
	Vo. Ag.	Auto Mechanics				Wood Work		Carpentry Bld. Const.		Welding Metal Work				Drafting			Electronics			Dist. Ed.		
	P	S	P	D	T	S	P	P	D	S	P	D	T	S	P	D	S	P	D	S	P	D
Churchill	X		X	X			X	X	X		X				X						X	
Elko	X			X			X		X		X				X	X		X				
Wooster*		X	X	X		X	X				X	X		X	X	X	X	X	X	X	X	X
Ely			X		X		X		X		X	X			X				X			
Lund	X																					
Lincoln			X		X						X		X									
Yerington	X			X			X								X							
Fernley	X						X				X				X							
Smith												X										

S = Only one semester for about 55 minutes

P = Single class period of about 55 minutes for the year

D = Two consecutive class periods of about 110 minutes for the year

T = Three class periods of about 160 minutes for the year

*These only include courses offered at the Wooster H.S. but tables dealing with the number of vocational courses students have taken includes the 9th grade.

Table 15 gives a summary of the number of vocational classes taken by 11th and 12th grade students taken in the different high schools. Table 15 cannot be studied without considering Table 14.

In the consideration of the tables in this section it is essential that a careful distinction be made between the terms vocational education and vocational orientation.

The Report of the Panel of Consultants in 1963 says, "that vocational education refers to that part of a student's instruction intended specifically to fit students for work." (1) The commonly accepted meaning of "fit students for work" is for the student to have that degree of competency for job entry.

Vocational Orientation means training provided to give the student enough experience in the various vocational fields to select an occupation he desires to pursue.

The difference between the two terms centers on the depth of training in a particular vocational program and is thus mainly proportional to the number and length of classes in which a student is enrolled. One of the limitations of Table 15 is that it does not indicate the number of students taking classes that are longer than hour periods.

Table 15 raises a question as to the objectives of the schools. If the objective of the school is to provide a wide exploratory program there would be an advantage to have each student take one course in several areas. Upon the other hand, if the objective is to train students with depth vocationally, it would appear that a fairly high percentage of the students should have had two to three courses in one particular area or have had some of the double periods depending upon how the program is organized in the school. A

(1) Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education, O.E.-80021, U.S. Government Printing Office, Washington, D. C., P. 5.

factor in this regard would be the extent the different vocational courses support each other and the degree that a student can obtain depth of training in a particular field after leaving high school. It would appear from an examination of Table 15 that some schools are doing a better job in vocational orientation while others are doing a better job in providing vocational training for job entry.

Another comparison can be made from the data in Table 15 and that is the percentage of students who anticipate entering the professions as compared to the percentage of students who have taken three or more vocational classes. This would indicate in practically all schools there is a need for a greater number of students to enroll in more vocational classes.

An examination of the schools of Lund, Smith and Lincoln offers some interesting contrasts with some of the larger schools in the study. In Lund all of the boys have taken vocational agriculture which is the only vocational program offered. The vocational agriculture program includes some basic instruction in mechanics. The student responses from this school indicate a desire for a greater choice of vocational classes (P. 48). In Smith, 72 percent of the students do not plan to go on to college, yet 45 percent of the students have had no vocational courses and those taking vocational courses have had only one course. In Lincoln, for example, 59 percent of the students have taken no vocational courses comapred to 47 percent who plan a professional career. The tables does indicate in Lincoln that a high percentage of the students whoenrolled in vocatimal classes are taking two or more classes and those who have elected a vocational program are following through on it.

TABLE 15

SUMMARY OF THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE MALE STUDENTS IN THE SELECTED NEVADA HIGH SCHOOLS IN THE STUDY

Schools	No. Students	Average Voc. Classes Per Student	Percentage of Students Taking Vocational Classes				
			None	One*	Two	Three or More**	Professional***
Elko	141	3.4	6	45	31	24	39
Lund	15	3.0	0			100	19
Churchill	150	3.0	11	59	21	20	32
Ely	162	2.5	15	56	33	11	36
Yerington	69	2.1	16	51	30	18	42
Fernley	28	2.1	18	58	32	9	30
Wooster	324	1.8	28	77	18	5	49
Lincoln	29	1.2	59	35	40	25	47
Smith	11	.7	45	100			28

*Student enrolled in only one class in a particularly vocational subject, such as auto mechanics. The same student may have been involved in several different courses.

**Three classes in the same program, such as three classes in vocational agriculture.

***This is the percentage of students in Table 2 who indicated an occupational choice by category as the professions requiring a four-year college degree or more (agriculutre and other professions).

Tables 16 through 22 are an analysis of each of the high schools in the study showing the relationship of the number of vocational classes taken by 11th and 12th grade students with the occupational categories selected in Table 2. The data on 9th and 10th grades was obtained but omitted in these tables because they distort the figures because the students have not had an opportunity to take many vocational classes. Ideally only the 12th graders should have been used because at the time the questionnaire was given they had made all of their choices as to classes. The 11th grade was included to make a larger sample. This was particularly necessary in some of the small schools in the study.

In the tables the length of class period was not included. The importance of this factor was discussed with Tables 15 and 30.

These tables show the number taking the trades and industrial classes in the various occupational choice categories. Auto mechanics, welding, and metal work or machine shop and drafting or mechanical drawing seem comparable in the number of boys they have attracted. Again the expected relationship is found. Boys choosing skilled trades, transportation, and mining have taken more of these; boys choosing business and professions have taken fewer. Since these courses are also valuable to those planning to enter agricultural production it is not surprising to find that boys in this category have also tended to take at least one. Carpentry and building construction have enrolled noticeably fewer. Whether this is due to lack of availability of courses or lack of interest of students is a question for further study. Since building construction and carpentry is one of the areas projected to expand in the state it would

appear reasonable that the training for this vocational area should also be expanding. However, the table presents evidence that such is not the case.

The tables also indicate clearly that distributive education is not a significant factor in the schools included in the study. Only two schools offer these programs and the number enrolled is very small. Even among boys choosing their vocation in business, only a very few have had such a class. In using the term business in this study, it refers strictly to sales, distribution and service; not to office practice or the typical classes in a business education department. Here again is a point for further study to determine why there are so few students in sales and service. Tables 42 and 43 indicate there is limited interest in this important area. When one refers to the total state employment projections he can only wonder why this area is seemingly slighted. One point to keep in mind is that this study concerns only boys; it may be that a similar study of the girls might yield different results. It appears there needs to be more innovative ways in teaching this area such as short intensive courses at the end of school, etc. Supervision and work experience programs after school and at night may be fruitful also special programs might be organized to be taught in the summer when the employment opportunities are the highest for high school age students.

A study of the occupational category "technician" appears to be somewhat misunderstood by the student. Perhaps the questionnaire could have been more specific. A study of the tables indicate that the students who desire to be technicians in some regard follow similar programs of the skilled trades and many on the

other hand are similar to the college oriented. Only three schools provide training in electronics. This limits the opportunity for many students to gain specific training in this field.

Tables for Lund and Smith are not included. The occupational choices by category of boys in the 11th and 12th grades in these two schools are as follows:

	Lund	Smith
Agriculture (production & off-farm business)	5	0
Business (sales & service)	0	0
Skilled Trades & Transportation	7	2
Technician	0	5
Public Service	0	2
Ag. Professions	2	0
Other Professions	1	2
	15	11

One would wonder why about half the students in Smith plan to be technicians. This again is a small high school, but a large number considering the size of the school.

EXPLANATION FOR READING TABLES 16 THROUGH 22

For example: Elko (Page 49) a total of 141 boys, 11th and 12th grades only, were broken down by their occupational choice by category. This included 23 in Agr. Production and Agr. Business, 11 business (sales and service), 39 skilled trades and transportation, etc. to make a total of 141. This table indicates the number of vocational classes that the students in each occupational group had taken of each of the seven types of vocational programs offered in the school. For example; of the 23 boys choosing the occupational category Agr. Production, 3 boys had one class in Vocational Agriculture, 2 had 2, and 17 had 3 or more. These 23 boys completed a total of 111 vocational classes. This was determined by multiplying 3x1, 2x2, 3x17. This was repeated for all seven columns to make a total of 111. To obtain the average number of vocational classes per student was determined by dividing 23 into 111 to give the average of 4.8 vocational classes per boy. In the bottom nine students had taken no vocational classes. The 141 boys in the school had completed 481 classes to make an average of 3.4 vocational classes per boy.

TABLE 16

NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT ELKO COUNTY HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes																			Total No. Classes	Average Classes Per Stu.
			Voc+ Ag.			Auto Mech.			Carp. Wood Work			Welding Metal Work			Draft-ing			Elec tron ics		DE		
			1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	1		
Ag Prod. & Ag. Business	23		3	2	17	3		1	3	7	3	1	3	1	5	2		1			111	4.8
Business	11	1	5			4	1	1	4		2	1			3	1					30	2.7
Sk. Trades Trans.	39		5	6	3	11	5	3	8	16	10	1	1		5	5	3	1			154	3.9
Technician	12			4	1	1		3	3	2	1				1	3		3			41	3.4
Public Service	7	1	3	2			1		1	3		1				2					21	3.0
Ag. Professions	12		1		4	2			3		2	1	1		2	2	2				39	3.2
Other Professions	37	7	6	1	1	5			11	7	1		1		9	5	6	2			85	2.3
TOTAL	141	9	23	15	26	26	7	8	33	35	19	5	6	1	25	20	11	8			481	3.4

+ Includes some shop and welding classes

See page 48 for an explanation in reading the table.

TABLE 17

NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT CHURCHILL COUNTY HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Students Total	Did Not Take	Number of Vocational Classes: Voc. Ag. 1	2	3+	Auto Mech. 1	2	3+	Carp. Wood Work 1	2	3+	Welding Metal Work 1	2	3+	Drafting 1	2	3+	Electronics 1	2	DE 1	Total* No. Classes	Average Classes Per Stu.
Ag. Prod. & Ag. Business	19	1	3	2	10	3	1		10	2	1	10	1	3	4	2		1			87	4.5
Business	9					1			2			1			2						6	.7
Sk. Trades Trans.	64	1	6	6	6	15	5	2	26	18	7	15	8	8	17	5	6	3		4	255	4.0
Technician	6		1	2		1			1	1	1		1	1	3		1				23	3.8
Public Serv.	7		2			1			3		2		1	1	1						16	2.3
Ag. Professions	9			2	1	1			4		2	4			2					1	23	2.5
Other Professions	36	15	1		1	1			4		1	4	1	1	7	2	2				38	1.1
TOTAL	150	17	13	12	18	23	6	2	50	21	14	34	12	14	36	9	9	4		5	448	3.0

See page 48 for an explanation in reading the table.

TABLE 18

THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT WOOSTER HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes																										Total No. Classes	Average Classes Per Stu.
			Voc. Ag.			Auto Mech.			Carp. Wood Work			Welding Metal			Draft-ing			Elec tron ics		DE											
			1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	1										
Ag. Prod. & Ag. Business	6	1	1			2	1		2	1		2			2	1	1	2											20	3.3
Business	40	10	1			7	1	2	13	5	1	4			8	3		4	2											68	1.7
Sk. Trades Trans.	56	5				19	12	2	29	6	2	22	4		19	3	3	6	2	2										161	2.8
Technicians	23	2				9	1		19			7			9	4	1	4	6											73	3.1
Public Service	41	7				12	2		17	4	2	4	2	1	8	4	1	5	2											84	2.0
Ag. Professions	44	13				11			19	1		6		1	8	2	2	2												60	1.3
Other Professions	114	54				20	7		26	3	2	4			16	5	2	8	2											116	1.0
TOTAL	324	92	2			80	24	4	125	20	7	49	6	2	70	22	10	31	14	2										582	1.8

See page 48 for an explanation in reading the table.

TABLE 19

THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT WHITE PINE COUNTY HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes: Voc. Ag. 1	2	3+	Auto Mech. 1	2	3+	Carp. Wood Work 1	2	3+	Welding Metal 1	2	3+	Draft-ing 1	2	3+	Elec tron ics 1	2	DE 1	Total No. Classes	Average Classes Per Stu.
Ag. Prod. & Ag. Business	6	1				3			1	2	1	1			3						15	2.5
Business	13	3				2	1		5	1	1				5			2			21	1.6
Sk. Trades Trans.	62					25	19	1	8	21	12	11	7	7	7	11	2	4	5		247	4.0
Technician	12	2				2			3	1	1				4			1	2		19	1.6
Public Ser.	15	2	1	1		8			7	1	2	4	1	1	2			2			39	2.6
Ag. Professions	11	1				2	1		2	3	1	2			3	1	1	4			19	1.7
Other Professions	43	16				4	2		5	3		2	1		10	4		5	2		55	1.3
TOTAL	162	25	1	1		46	23	1	31	32	18	20	9	8	34	16	3	18	9		415	2.5

See page 48 for an explanation in reading the table.

TABLE 20

THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT YERINGTON HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes: Voc. Ag. 1	2	3+	Auto Mech. 1	2	3+	Carp. Wood Work 1	2	3+	Welding Metal 1	2	3+	Drafting 1	2	3+	Electronics 1	2	DE 1	Total No. Classes	Average Classes Per Stu.
Ag. Prod. & Ag. Business	3		1	1					1			2									6	2.0
Business	5	1		1		1			1	1					2						8	1.6
Sk. Trades Trans.	9		2	2		6	2		4		1	4			5						32	3.5
Technician	5		1			2			2						3	1					10	2.0
Public Service	10	1		2	1	2		1	5		1				4						22	2.2
Ag. Professions	9	2	2	1	3	1			3			3			3	1					23	2.6
Other Professions	28	7	5						7	1		3			12	4	3				46	1.6
TOTAL	69	11	11	7	4	12	2	1	23	2	2	12			29	6	3				147	2.1

See page 48 for an explanation in reading the table.

TABLE 21

THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT FERNLEY HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes: Voc. Ag. 1	2	3+	Auto Mech. 1	2	3+	Carp. Wood Work 1	2	3+	Welding Metal 1	2	3+	Drafting 1	2	3+	Electronics 1	2	DE 1	Total No. Classes	Average Classes Per Stu.
Ag. Prod. & Ag. Business	2			1					1	1		1									5	2.5
Business	3	2		1					1			1									4	1.2
Sk. Trades Trans.	9		2	2	3				4	2		2	2		1	2					31	3.4
Technician	2	1							1						1						2	1.0
Public Ser.	1		1													1					2	2.0
Ag. Professions	5	1		1	1				2			2			1						10	2.0
Other Professions	6	1	1						1	1		1	1		3						6	1.0
TOTAL	28	5	4	5	4				10	4		7	3		6	3					60	2.1

See page 48 for an explanation in reading the table.

TABLE 22

THE NUMBER OF VOCATIONAL CLASSES TAKEN BY MALE 11TH AND 12TH GRADE STUDENTS AT LINCOLN HIGH SCHOOL GROUPED ACCORDING TO THEIR OCCUPATIONAL CHOICE BY CATEGORY

Occupational Groups	Total Stus.	Did Not Take	Number of Vocational Classes																	Total No. Classes	Average Classes Per Stu.
			Voc. Ag.			Auto Mech.			Carp. Wood Work			Welding Metal			Draft-ing			Elec tron ics		DE		
			1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	3+	1	2	1		
Ag. Prod. & Ag. Business	1	1																			0	
Business																						
Sk. Trades Trans.	6	3					2	1					2	1							14	2.6
Technician	5	2					1	2				1		1							10	2.0
Public Ser.	3	2				1							1								2	.7
Ag. Professions	5	4				1															1	.2
Other Professions	9	6				2	1		1			1	1								8	.9
TOTAL	29	17				4	4	3	1			2	4	2							35	1.2

See page 48 for an explanation in reading the table.

Table 23 is a summary of the number of vocational classes taken by 11th and 12th grade students. There were 892 students classified according to their occupational choice by category. The total vocational classes were calculated as shown in Tables 16 through 22 by classifying all of the students who took one, two, three or more vocational classes. The average was 2.4 vocational classes per student.

The primary meaning of the table is found in the average number of vocational classes taken according to each occupational group. Students planning to enter agriculture averaged about four classes per student and only eight per cent had taken no vocational classes. It also appears that students who plan to enter the trades and/or transportation and mining are enrolling in vocational courses to a fairly high degree and less than one per cent are taking no vocational classes.

It would appear that students planning to enter the professions are not overloading with vocational courses with 39 per cent having taken no vocational classes and those who have taken them average slightly more than one vocational course.

In studying Tables 16 through 27, it should be noted that the schools that have vocational agriculture generally have a higher percentage of students who select agriculture professions compared to those who do not have it. It appears that vocational agriculture teachers are doing a good job in directing their students into the agriculture professions.

The length of the periods was not counted separately in this or other tables. It has been explained previously that the length of classes is an important factor in evaluating vocational programs. Students taking a double period were counted as taking one class.

TABLE 23

SUMMARY OF THE VARIOUS OCCUPATIONAL GROUPS RANKED ACCORDING TO THE AVERAGE NUMBER OF COURSES TAKEN BY 11TH AND 12TH GRADE MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Occupational Groups	Total Students	Total Vocational Classes*	Average Voc. Classes Per Student	% Taking No Voc. Classes
Agriculture & Agriculture Business	63	254	4.0	8.0
Skilled Trades & Transportation	245	886	3.6	.4
Technician	68	179	2.6	12.0
Public Service	85	187	2.2	15.0
Agriculture Professions	92	171	1.8	.4
Business (Sales & Service)	78	133	1.7	21.0
Other Professions	261	351	1.3	39.0
TOTALS	892	2,161	2.4	

*Method of calculation - 1 class X 1, 2 classes X 2, 3 or more classes X 3. Semester classes were counted as 1.

Section 5: The extent to which Students' Vocational Choice by Category Agrees with Their Reason for Taking Vocational Classes.

Tables 24, 25, and 26 are directed to the contributing objective of determining the extent to which the vocational choice relates to the expressed reason for taking vocational classes. The first step in such determination is to discover the reason given by students for taking vocational classes. Table 24 classifies responses by schools.

Here only tenth, eleventh, and twelfth graders were asked to respond, and those only if they had taken one or more vocational classes. Thus the number is smaller, but these are the students who should be more capable of a reasoned response. Boys were asked to give the single best reason and their answers were classified as: (1) no special reason except interest or personal interest; (2) assistance toward meeting career objectives; (3) ease of course work, with possible attention toward improving grade average; and (4) counselor or teacher. This latter included both liking for vocational teachers and enrollment on advice of counselor.

The largest percentage (48 percent) stated that they had enrolled in vocational classes for no reason other than personal interest. Forty-two per cent saw these classes as assisting them in achieving occupational objectives. Six per cent took these classes because they considered them easy, and four per cent were there because they liked the teacher or had been advised by a counselor to enroll.

These findings present some questions when compared with Tables 14 through 23 where there seemed to be

ational classes. It may be argued that the occupa-
ich in turn were originally taken only because of
hat discouraging figure of 42 per cent who see these

er investigation. The vocational courses are designed
fewer than half of the boys view them in this light.
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it is quickly evident that very few boys are being
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ged, to prepare for a college education which may be

e. The percentage of boys taking vocational classes
ough twelfth grade. Whether this is due to increased
cannot be determined from the data. It is regrettable
s end does not also increase.

some relationship between occupational choice and vocational classes. It may be argued that the occupational choice resulted from the vocational courses which in turn were originally taken only because of interest. Such an explanation would offset the somewhat discouraging figure of 42 per cent who see these classes as furthering career objectives.

However, the situation does indeed warrant further investigation. The vocational courses are designed to assist the student in preparing for an occupation; fewer than half of the boys view them in this light. Obviously, then, whether or not these classes are meeting their objective, they are certainly not seen as doing so. This is a question which needs some very serious thought and study.

The figure of six per cent of boys who regard the vocational classes as easy is not alarming, but four per cent in the "counselor or teacher" would seem far too low. Granted that among sound educational motives, liking a teacher does not hold high priority, it is quickly evident that very few boys are being counseled into vocational courses. Over and over this study supports the view that an unrealistic number of high school boys are being permitted, even encouraged, to prepare for a college education which may be both unnecessary and unsuitable.

One encouraging finding does emerge in this table. The percentage of boys taking vocational classes to further career objectives increases from tenth through twelfth grade. Whether this is due to increased maturity or increased realism in occupational choice cannot be determined from the data. It is regrettable that the number of boys who receive counseling to this end does not also increase.

TABLE 24

MALE VOCATIONAL STUDENTS' BEST REASON FOR TAKING VOCATIONAL CLASSES IN SELECTED NEVADA HIGH SCHOOLS*

Reasons Given	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Personal Interest	82	45	74	42	141	53	102	48	9	50	8	36
Assists Career Objectives	86	47	91	52	99	37	90	42	3	16	8	36
Classes are Easy	11	6	9	5	15	6	13	6	0		4	18
Counselor or Teacher**	5	3	2	1	13	5	8	4	6	33	4	18
TOTAL RESPONDING	184		176		268		213		18		24	

TABLE 24 - Continued

Reasons Given	Yerington		Fernley		Smith		Schools Combined Grade Level by %			Total	
	No.	%	No.	%	No.	%	10	11	12	No.	%
Personal Interest	50	57	18	55	5	71	52	45	45	489	48
Assists Career Objective	30	33	11	33	2	29	36	46	45	420	42
Classes are Easy	4	5	2	6	0		7	5	5	58	6
Counselor or Teacher**	4	5	2	6	0		4	3	5	44	4
TOTAL RESPONDING	88		33		7		379	323	301	1,011	

*Includes only 10th, 11th, and 12th grade students who have taken vocational classes.
**Includes, I like teachers, and counselor advised me to enroll.

Table 25 shows students' stated reasons for taking vocational classes arranged by occupational choice categories. By combining the reasons not related to career objectives and contrasting them with the furtherance of career objectives, one quickly sees those fields in which the vocational classes are perceived as meeting their objective of preparing youth for the world of work. Using this criterion, the schools are apparently doing the best job of vocational training in agriculture, with 62 per cent stating that they enrolled in these classes to assist their career objectives.

Skilled trades and mining and transportation students are slightly less aware of assistance, with 55 per cent giving this reason. In spite of the findings of Tables 16 - 22, that few of the boys wishing to become technicians have had opportunity to take career-related classes, some 42 per cent give this reason.

The apparent lack is among those students wishing to enter business and public service. Only 20 per cent of these feel that their vocational classes are helping in their career objectives. This is even less than the 30 per cent of those wishing to enter professions. This corroborates the findings in Tables 16 through 22, that the schools apparently are not serving these boys well.

TABLE 25

THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS GROUPED ACCORDING TO THEIR BEST REASON FOR TAKING VOCATIONAL CLASSES

Occupational Groups	Assists Career Objective		No Special Reason Except Interest		Teacher, Counselor & Easy Classes*		Total	
	No.	%	No.	%	No.	%	No.	%
Production Ag. & Off-Farm Ag. Business	64	62**	30	29**	9	9**	103	10
Skilled Trades Trans, & Mining	197	55	129	36	31	9	357	36
Business (Sales & Service) Public Service	32	20	103	65	24	15	159	16
Technician	34	42	39	48	8	10	81	8
Agriculture Professions	30	29	67	65	6	6	103	10
Other Professions	61	30	118	59	22	11	201	20
TOTAL WITH EACH REASON	418		486		100		1,004	
PER CENT OF TOTAL		42		48		10		

*Includes I like teachers, classes are easy, and the counselor advised me to enroll.

**The percentage is calculated on a horizontal line basis only for the three reasons for taking vocational classes.

Table 26 lists only responses from those 11th and 12th graders who have taken two or fewer vocational classes. While the 48 per cent stating that they have not taken more classes because of failure to meet career objectives appears large, it must be read in connection with the large proportion who stated their intention of entering a profession. Of much greater concern should be the 36 per cent who have not had further opportunity because of schedule conflict. Naturally in the smaller schools this can become an insurmountable problem. However, since the larger schools contribute the bulk of the students, where more sections of a class can be offered, this may be a point on which some real work can be done.

The "other reasons" category also implies criticism of the schools. This includes failure to offer courses, dislike of teachers and a feeling of adequate knowledge without the class. Naturally the school cannot offer every class in which a particular student might be interested. Nevertheless, it might behoove the vocational education departments to evaluate their offerings for relevance and salience. Dislike of teachers is another point where the schools might need to take a long hard look at themselves. Not every student is going to like every teacher, of course, but any teacher who is sufficiently disliked to deprive students of needed education obviously needs some help. Finally, if many students feel they know enough about the course without taking it, the content needs to be scrutinized. The purpose of education, vocational or otherwise, is to teach that which was not previously known. If classes do not meet this aim, they should be revised or eliminated.

The column decision of parents is of particular interest to many vocational educators. Only one per cent of the students indicated they did not take vocational classes because of parents.

The influence of the parent on vocational choice is highly important, but subtle and indirect as it affects the student. Thus it is most difficult to measure. In the research done in 1968 (Table 72 in the appendix) very few students disagree with their parents as to their occupational choice of a vocation.

TABLE 26

REASONS GIVEN BY 11TH AND 12TH GRADE MALE NEVADA HIGH SCHOOL STUDENTS FOR NOT HAVING COMPLETED MORE VOCATIONAL CLASSES*

Reasons Given	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Fails to Meet Career Plans	47	47	39	48	138	57	59	55	0		4	14
Schedule Conflict	41	41	31	38	80	33	33	30	0		8	30
Other Reasons**	10	10	11	14	22	9	16	15	0		15	56
Decision of the Parent	1	1	1	1	4	1	0		0		0	
TOTAL RESPONDING***	99		82		244		108		0		27	

TABLE 26 - Continued

Reasons Given	Yerington		Fernley		Smith		Schools Combined Grade Level by %		Total	
	No.	%	No.	%	No.	%	11	12	No.	%
Fails to Meet Career Plans	19	41	4	17	2	9	46	55	312	48
Schedule Conflicts	22	45	14	61	5	23	39	30	234	36
Other Reasons**	6	13	5	22	15	68	14	14	100	15
Decision of the Parent	1	2	0		0		1	1	7	1
TOTAL RESPONDING***	48		23		22		344	265	653	

*Students were forced to choose the one best reason.

**Includes not offered in the school, does not like the teacher, and adequate knowledge without taking classes.

***Includes mainly 11th and 12th grade students who had taken two or less vocational classes.

CHAPTER II

Section 6 - Students' Evaluation of the Strengths and Weaknesses of Their Vocational Programs

In the determination of the extent to which the schools are providing vocational training in accordance with the expressed occupational choice of the students, the final contributing objective is to discover how students appraise the vocational classes taught in the high schools. Tables 27 through 37 speak to this objective.

In Table 27 the students who had taken vocational classes were asked whether they perceived these as important, where something of real value was learned, or unimportant, with the jobs done of little value. Eighty-three per cent felt that the classes were indeed important. There were no significant differences among schools.

The main question raised by these figures is why there is a steady decline in satisfaction from ninth through twelfth grade. This decline is not large enough for statistical significance, but it is consistent enough to merit further investigation.

TABLE 27

MALE STUDENTS' EVALUATION OF THE WORTH OF VOCATIONAL CLASSES TO THEM IN SELECTED NEVADA HIGH SCHOOLS

Criteria	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Important-Learning Something of Real Value	225	86	195	85	233	81	211	81	21	88	19	86
Unimportant-Jobs Done are of Little Value	38	14	35	15	56	19	51	19	3	13	3	14
TOTAL RESPONDING*	263		230		289		262		24		22	

TABLE 27 - Continued

Criteria	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Important-Learning Something of Real Value	108	86	35	78	7	100	87	85	83	79	1,054	83
Unimportant-Jobs Done are of Little Value	18	14	10	22	0		13	15	17	21	214	17
TOTAL RESPONDING*	126		45		7		209	399	343	317	1,268	

*Includes only students who have taken vocational classes.

Table 28 classifies the students' opinions of the value of vocational classes according to their motives for taking the classes. The response is almost perfectly as one would have predicted. Those students who are taking classes to further vocational objectives find them important and that they are learning material of real value. On the other side of the picture, while only nine per cent of students thus motivated find classes unimportant, 43 per cent of those taking them because they are thought easy, because they like the teacher or on advice of a counselor feel they are doing jobs of little value. Also predictably, of those who are taking vocational classes because of individual interest, 81 per cent find them important and valuable.

TABLE 28

MALE STUDENTS' IN SELECTED NEVADA HIGH SCHOOLS BEST REASON FOR TAKING VOCATIONAL CLASSES GROUPED ACCORDING TO THEIR EVALUATION OF THE WORTH OF THE SHOP OR CLASS WORK

Reasons	Evaluation of the Worth of Classes					
	Important-Learning of Real Value		Unimportant-Jobs Done Are of Little Value		Total	
	No.	%	No.	%	No.	%
Assists Career Objectives	376	91*	36	9*	412**	42**
No Special Reason Except Interest	380	81	89	19	469**	48**
Teacher, Counselor or Easy Classes	51	57	38	43	89**	9**
TOTAL IN EACH RATING	807		163		970	
PER CENT OF TOTAL		83		17		

*The percentages are calculated on a horizontal line basis only.

**Includes the number and percentage of students who selected each of the three reasons.

In Table 29 the students' opinions of the worth of their vocational classes are categorized according to their average grades in English and mathematics. The only perceptible difference in satisfaction is found in those on both ends of the grading scale. That is, while 80 per cent of "B" students, 83 per cent of "C" students and 87 per cent of "D" students express satisfaction, only 68 per cent of the "A" students and 70 per cent of the "F" students feel the courses are important and that they are learning something of real value. This again is as one would expect. In general teachers tend to aim their presentation toward the middle of the range, where the bulk of the students are. The brighter students occasionally are bored and are not challenged according to their ability.

The information obtained from teachers grades given to vocational students, not included in this report, indicated that the average grade in all vocational classes was a "B". This fact was supported in research done in 1968. Very few vocational students receive grades of "D" or "F". The 3 per cent of the students in Table 29 who received grades of "F" probably had poor attendance or other objectional traits rather than insufficient achievement in class or shop work. They possibly are frustrated because of a general dislike for school or have other academic or emotional problems. They probably don't fit in a vocational class any better than any other class.

One of the common complaints of vocational teachers is that their classes are dumping grounds for poor students. A comparison between the percentage of the grades for all students (Table 8) compared with students who have completed two or more vocational classes (Table 29) is as follows:

Grades (English & mathematics)	A	B	C	D	F	Total Students
All students (in per cent)	4	20	50	24	1	1,807
Students with 2 or more vocational classes	2	16	52	28	2	1,255

The above comparison demonstrates that the academic grades in English and mathematics are slightly lower for the students who have two or more vocational clases. The 553 students who did not take vocational classes obviously were highest achievers in English and mathematics.

The above percentages are about what one would expect because the focus of vocational programs is, and should be, on the world of work rather than the professions. There are, however, a sizeable number of good students in the vocational programs. There is nothing in this study to support the idea that vocational classes are a wholesale dumping ground for poor students.

In Table 29, it is important to note, that all of the students who received grade C, D, F, 863 said their vocational classes were important and they were learning something of real value compared to 162 who said their classes were unimportant and the jobs done were of little value. This is a ratio or more than five to one. This appears to be a strong endorsement for vocational programs that students feel they are learning something of real importance in spite of the grades they receive.

* Average grades all vocational classes	A	B	C	D	F	Total students
11th (in percent)	14	48	34	4	0	367
12th (in percent)	16	51	29	4	0	327

* Student must have completed at least two vocational classes.

TABLE 29

MALE STUDENTS' EVALUATION OF THE WORTH OF SHOP OR CLASS WORK GROUPED ACCORDING TO THEIR AVERAGE GRADES IN ENGLISH AND MATHEMATICS

Criteria	Average Grades										Total	
	A		B		C		D		F			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Important-Learning Something of Real Value	21	2*	160	15*	542	52*	305	29*	16	2*	1,044	83
Unimportant-Jobs Done are of Little Value	10	5	39	18	110	52	45	21	7	3	211	17
TOTAL WITH EACH GRADE	31		199		652		350		23		1,255	**
PER CENT OF TOTAL		2		16		52		28		2		

*The percentages are calculated on a horizontal line basis only for each average grade.

**Includes only students who have taken two or more vocational classes.

Table 30 gives the students' evaluation of the length of vocational classes. Forty-eight per cent of the students feel the length of the class is about right to get the work done and 46 per cent feel classes are too short. The latter raise the question of whether the teacher is unrealistic in his demands or whether interest is so high that the boys would like to continue in this pursuit longer.

Table 14 indicates that vocational classes are organized in many different lengths ranging from one period for one semester to three periods for a full year. It would have been most enlightening if we could have tied this question to the actual length of periods in which the student is enrolled.

This was done in a different question reported in Table 37. Students were asked to make specific suggestions to improve their vocational programs. In that table the younger the student the more frequently shortness of period was listed as a common complaint.

It would appear that the response to this question may relate to Table 36--availability of space and equipment--and to Table 35--the quality of teaching. One problem observed by the researcher is that many one-period classes (usually 7 to 9th grades) have too many students in the class for the space and equipment. The student then becomes frustrated and may learn to dislike the classes. Further investigation is needed to determine why almost half of the students say their vocational classes are too short. Study needs to be made to find ways and means of making whatever time that is available most productive.

There is probably no reason for concern about the six per cent who feel that the classes are too long with resultant boredom.

TABLE 30

MALE STUDENTS' EVALUATION OF THE LENGTH OF VOCATIONAL CLASSES IN SELECTED NEVADA HIGH SCHOOLS

Criteria	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
About Right to Get Work Done	117	44	126	54	108	37	152	57	14	58	14	64
Too Short	144	54	97	41	170	58	95	36	10	42	5	23
Too Long, as a Result Students Get Bored	5	2	11	5	15	5	17	7	0		3	14
TOTAL RESPONDING*	266		234		293		264		24		22	

TABLE 30 - Continued

Criteria	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Total	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
About Right to Get Work Done	64	49	18	35	3	43	48	44	48	52	616	48
Too Short	51	37	21	41	4	57	45	50	47	43	597	46
Too Long, as a Result Students Get Bored	17	14	12	24	0		8	6	5	5	80	6
TOTAL RESPONDING*	132		51		7		220	404	346	323	1293	

*Includes only students who have completed vocational classes.

In Table 31 the students' evaluation of the length of classes is compared with their reasons for taking these classes. Of those students who are taking these classes to further their career objectives, the overwhelming majority (97 per cent) feel that the classes are either about right or too short. Generally speaking they do not tend to feel that the classes are so long that they are boring. The greatest tendency to this feeling is found among those boys who are taking them because of a teacher or counselor.

Table 32 shows that 79 percent of the boys who have taken vocational courses feel that the rate of progress in these classes is about right. Eighteen percent feel that the pace could be stepped up and more work accomplished, while only three percent feel that the class is too fast or too difficult. Again there appears to be no appreciable difference among schools. There is, however, a slight but steady movement from satisfaction with the progress toward a wish for more work and a faster pace as the boys move through the grades from ninth to twelfth. One possible explanation is that added maturity brings an increasing awareness of how much they need to learn. Another suggestion might be that the teachers are not expecting as much of the older boys as they should.

TABLE 31

MALE STUDENTS' IN SELECTED NEVADA HIGH SCHOOLS BEST REASON FOR TAKING VOCATIONAL CLASSES GROUPED ACCORDING TO THEIR EVALUATION OF THE LENGTH OF CLASS PERIODS

Reasons	Length of Class Periods							
	Too Short		Too Long		About Right		Total	
	No.	%*	No.	%	No.	%	No.	%
Assists Career Objective	210	50*	11	3*	195	47*	416	42
No Special Reason Except Interest	211	44	29	6	237	50	477	48
Teacher, Counselor or Easy Classes	38	41	12	13	42	46	92	9
TOTAL IN EACH EVALUATION	459		52		474		985	
PER CENT OF TOTAL		47		5		48		

*The percentages are calculated on a horizontal line basis only for each length of class period.

TABLE 32

MALE STUDENTS' EVALUATION OF THE RATE OF PROGRESS IN CLASS AND SHOP WORK IN SELECTED NEVADA HIGH SCHOOLS

Criteria	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
About Right	219	84	187	80	230	79	198	76	13	54	17	77
Too Slow-Wish More Were Done	38	15	37	16	51	18	58	22	11	46	5	23
Too Fast or Too Hard	3	1	10	4	10	3	6	2	0		0	
TOTAL RESPONDING*	260		234		291		262		24		22	

TABLE 32 - Continued

Criteria	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
About Right	98	77	33	75	6	86	86	82	78	72	1,001	79
Too Slow-Wish More Were Done	22	17	7	16	1	14	9	14	20	26	230	18
Too Fast or Too Hard	7	6	4	9	0		5	3	2	3	40	3
TOTAL RESPONDING*	127		44		7		205	403	343	317	1,271	

*Includes only students who have taken vocational courses.

In studying Table 33 one comes to the conclusion that the reason for taking vocational classes has very little effect on the students' appraisal of the pace set, the amount of work accomplished and the level of difficulty involved. Most of the boys (76 per cent) feel the progress is satisfactory. There is nothing in the study to indicate the type of student enrolled in the vocational classes because of counselor or teacher motivation. They may be largely a group of students who are possibly having problems in all classes. Table 28 indicates, however, that 57 per cent of this group feel they are learning something of real value in their vocational classes. This could be a distinct credit to the vocational programs.

TABLE 33

MALE STUDENTS' IN SELECTED NEVADA HIGH SCHOOLS BEST REASON FOR TAKING VOCATIONAL CLASSES GROUPED ACCORDING TO THE STUDENTS' EVALUATION OF THE RATE OF PROGRESS IN VOCATIONAL CLASSES

Reasons	Rate of Progress							
	Too Fast or Too Hard		Too Slow-Wish More Work Done		About Right		Total	
	No.	%	No.	%	No.	%	No.	%
Assists Career Objective	4	1*	89	20*	326	79*	419	43
No Special Reason Except Interest	16	3	94	20	365	78	475	48
Teacher, Counselor or Easy Classes	8	9	21	24	60	67	89	9
TOTAL IN EACH EVALUATION	28		204		751		983	
PER CENT OF TOTAL		3		21		76		

*The percentages are calculated on a horizontal line basis only.

The progress of vocational classes is compared with average grades in English and mathematics in Table 34. If the assumption that these grades are representative of a student's overall performance is valid, the results in this table are entirely logical. The proportion of those who are satisfied with the pace follows very closely the total grade distribution. Those who feel the pace is too slow, who feel more work could be accomplished are slightly more apt to be found among the "A" and "B" students. Those in the "F" group are slightly more apt to regard the classes as too rapid or too difficult.

TABLE 34

MALE STUDENTS' EVALUATION OF THE RATE OF PROGRESS IN VOCATIONAL CLASSES GROUPED ACCORDING TO THEIR AVERAGE GRADES IN ENGLISH AND MATHEMATICS

Rate of Progress	Average Grades										Total	
	A		B		C		D		F			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Too Fast	0		7	18	18	46	10	25	4	11	39	3
Too Slow	8	4	52	23	124	54	44	20	0		228	18
About Right	23	2	137	14	515	52	297	30	19	2	991	79
TOTAL WITH EACH GRADE	31		196		657		351		23		1,258	
PER CENT OF TOTAL WITH EACH GRADE		2		16		52		28		2		

In the question to which the responses are indicated in Table 35, boys who had taken vocational courses were asked to rate their teachers. Two dimensions were suggested, the teacher's preparation for the class and the amount of help he gave. Students could rate teachers as excellent, good, fair or very poor. For purposes of tabulation, good and excellent were combined as were fair and very poor. Again there are no significant differences among schools, with three-fourths of the respondents rating their teachers good to excellent and the other fourth considering them very poor to fair. The highest and lowest percentages of "good" teachers were found in smaller schools. This is logical, since the teacher who is outstanding, either as a "good" teacher or as a "bad" teacher, affects a much higher proportion of the total enrollment in a small school. In many cases he is the only vocational teacher employed. In spite of this, when 42 per cent of the boys in a school rate their teachers as fair to very poor, some investigation should be made, even if this only represents 21 boys.

It is interesting to note that seniors seem to have the best of it in this regard. Either they actually have better teachers or they are more tolerant. Of course, there are other possible explanations. If some time has lapsed since their experience with vocational classes, they may tend to have more favorable views. If, on the other hand, they were taking classes at the time of the survey, they might well be the more advanced classes where one would expect to find more attention given to helping students.

Asking students to rate several vocational teachers with only one rating left a great deal to be desired as an evaluative technique. Often the students had to give one rating for two or more teachers.

For example, students often wrote in on the blank, one teacher excellent, and the other teacher very poor. There was little doubt that students could and would identify good as well as poor teachers. In many schools there appeared to be in many cases a rather strong concurrence of opinion.

TABLE 35

MALE STUDENTS' EVALUATION OF VOCATIONAL TEACHER/S/ AS TO PREPARATION FOR THE CLASSES IN SELECTED NEVADA HIGH SCHOOLS

Criteria	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Good to Excellent	204	77	153	87	232	79	172	65	22	92	18	83
Fair to Very Poor	61	23	30	12	60	21	93	35	2	8	4	18
TOTAL RESPONDING*	265		233		292		265		24		22	

TABLE 35 - Continued

Criteria	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Total	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Good to Excellent	81	64	29	58	6	85	72	75	72	80	967	75
Fair to Very Poor	49	37	21	42	1	14	28	25	28	20	321	25
TOTAL RESPONDING*	130		50		7		218	401	347	322	1,288	

*Includes only students who have taken vocational classes.

Table 36 shows the students' evaluation of the tools, equipment and space for projects and shop work. The 1,262 responses come only from boys who have taken vocational courses. Two-thirds of these boys feel that the physical facilities are adequate for the jobs to be done. There are variations among schools, some of these are very distinct. As a general rule the smaller schools are more handicapped for tools and space than the larger ones. About half of the students in the schools at Ely, Lund, Lincoln and Yerington definitely think they are handicapped for tools and space to do a satisfactory job in their vocational classes.

The information in Smith Valley must be considered in light of Table 14 which indicates only one vocational class is taught in welding. The students are satisfied with the tools and space for this particular class but the fact they offer only one class would indicate they may need space and equipment for a more comprehensive vocational program.

Again there is a trend toward less satisfaction with the tools, equipment and space for projects as the boys move through the grades. This is the same as in Table 27 where the older the student the less he thought the classes were worthwhile. In Table 32, again, the older the students the less he was satisfied with the rate of progress in the class. Some investigation needs to be made as to the causes for the increased dissatisfaction experienced by the boys as they grow older and move through the grades. This is of particular importance since instruction for the older students should be more vocational in nature and the content of the classes directed to training for initial job entry competency.

TABLE 36

MALE STUDENTS' EVALUATION OF THE TOOLS, EQUIPMENT, SPACE FOR PROJECTS AND SHOP WORK IN SELECTED NEVADA HIGH SCHOOLS

Criteria	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Adequate to Get the Job Done	199	76	158	68	231	80	131	51	12	50	10	48
Too Limited	63	24	74	32	58	20	128	49	12	50	11	52
TOTAL RESPONDING*	262		232		289		259		24		21	

TABLE 36 - Continued

Criteria	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Adequate to Get the Job Done	59	47	27	63	6	86	73	68	64	62	833	66
Too Limited	66	53	16	37	1	14	27	32	36	38	429	34
TOTAL RESPONDING*	125		43		7		204	399	343	317	1,262	

*Includes only students who have taken vocational courses.

Table 37 is one which requires a great deal of study. It lists the suggestions made by students for improvements which they feel would enable them to derive greater benefit from their vocational classes. While each boy was asked to make two suggestions, it does not appear that all boys availed themselves of the opportunity, since the total number of suggestions tabulated is only 886. It would be logical to presume that these were made by the boys indicating dissatisfaction on previous tables, i.e., Tables 27, 30, 32, 35, and 36. Therefore, one would anticipate a correlation with those other tables.

A simple comparison of either numbers or per cents cannot be made. An outstanding example of the fallacy of this approach can be found in looking at figures from Lincoln County. In Table 30, 23 per cent of the respondents found classes too short, and in Table 37, 36 per cent of the suggestions were for longer class periods. Here is an apparent discrepancy. However, further scrutiny reveals that this breaks down to five students who listed classes as too short and four who suggested they be longer. Thus the apparent difference disappears. Further restrictions on such comparisons appear when one realizes that each student had the privilege of making two suggestions.

The only valid way of determining whether there is truly a relationship between perceived inadequacies and suggestions for improvement is to calculate coefficients of correlation. Thus the number who stated the class periods were too short (Table 30) was compared with the number suggesting longer class periods. Those who felt the jobs were not worthwhile (Table 27) were compared with suggestions of more beneficial student projects. The appraisal of teachers (Table 35) was compared with a combination of three suggestions,

better supervision and discipline, improved instruction and better and more teachers. The final comparison made was the evaluation of tools, equipment and space (Table 36) with the suggestion of more adequate equipment, tools, and supplies. All correlations were positive, and three of the four were significant at the .01 level; the other was significant at the .05 confidence level.

As a result of these correlations, some fairly strong statements can be made. First, considerable evidence is provided about the consistency of the subjects who were surveyed. The opinions they express when asked to evaluate various aspects of vocational education in their schools are reinforced by the suggestions which they made for improvements. They were not given a list of suggested improvements and asked to check those they thought applicable; they made their own suggestions. In this connection, it is interesting to note that 91 per cent of these suggestions could be placed in a total of nine categories. Evidently each of these boys is not only generally consistent within himself, but in addition holds much the same view of the situation as his peers.

The second statement arises from the correlations and from the first statement. Since these students are so consistent, within themselves and with their peers, credence is lent to their opinions. There are implications here that the school would do well to investigate. The time allotment and the facilities must become concerns of the schools as they are of the students. A close scrutiny needs to be made of these factors, and also of the qualifications of teachers, with an eye either to changing the situation or to presenting the situation as it is to the students in a more favorable light.

TABLE 37

MALE STUDENTS' SUGGESTIONS FOR THE IMPROVEMENT OF VOCATIONAL CLASSES IN SELECTED NEVADA HIGH SCHOOLS*

Suggested Improvements	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Longer Class Periods	65	44	54	34	65	33	24	13	1	3	4	36
Inadeq. Equip., Tools & Supplies	12	8	26	18	9	10	56	30	6	15	1	8
More Beneficial Student Proj.	13	9	11	7	23	12	11	6	10	25	3	26
Larger and Newer Facilities	14	9	16	10	6	3	31	17	1	3	0	
More & Adv. Voc. Classes	9	6	16	10	9	5	6	3	13	36	1	8
Better Supervision & Disc.	8	5	7	4	26	13	15	8	0		0	
Improved Instruction	4	3	8	5	7	4	8	4	5	13	1	8
Better & More Teachers	6	4	4	2	11	6	5	3	1	3	1	8
Enforced Prerequisites	4	3	3	2	13	7	3	2	0		0	
Additional Suggestions	14	9	15	9	16	8	21	12	1	3	1	8
TOTAL NUMBER SUGGESTIONS	149		160		185		180		38		12	

TABLE 37 - Continued

Suggested Improvements	Yerington No.	%	Fernley No.	%	Smith No.	%	Schools Combined Grade Level by % 9	10	11	12	Totals No.	%
Longer Class Periods	27	24	7	17	1	17	26	24	21	19	248	28
Inadeq. Equip., Tools & Supplies	27	24	9	22	4	66	15	21	17	19	150	17
More Beneficial Student Proj.	9	9	3	6	0		10	11	11	9	83	9
Larger & Newer Facilities	5	4	0		0		6	9	8	14	73	8
More & Adv. Voc. Classes	11	10	5	11	0		11	5	8	8	70	8
Better Supervision & Disc.	3	3	7	17	0		5	8	11	6	66	7
Improved Instruction	5	4	8	20	0		7	4	3	6	46	5
Better & More Teachers	16	14	2	4	0		5	5	6	5	46	5
Enforced Prerequisites	0		0		0		1	3	3	2	23	3
Additional Suggestions	10	9	2	4	1	17	8	4	8	9	81	9
TOTAL NUMBER SUGGESTIONS	113		43		6		175	410	385	320	886	

*Each student was asked to list two suggestions that if put into practice would help him to benefit from his vocational classes.

CHAPTER II

Section 7 - Indicated Interest of Students in Certain Vocational-Type Classes

In Tables 38, 40, and 42 students were asked to check either "I am interested," or "I am not interested," in the general types of vocational classes assuming they could be provided by the school. Only the column, "interested," was tabulated. The main value of these tables is that they show the relative importance by student ranking of the types of classes given. This information is of particular value in planning of vocational programs. Along with the above tables is 39, 41, and 43 which give an indication of the degree of interest of students who selected each of the various occupational groups by category. Tables 38 and 39 deal with agricultural-type classes. Tables 40 and 41 deal with trades and industrial-type classes. Tables 42 and 43 deal with business and technical-type classes. Each set of tables will be discussed together.

The agricultural-type classes were grouped in seven major types of classes. All schools indicated by a large margin that conservation, forestry, recreation, etc. were the subjects of most interest. The interest was nearly the same for each grade in school. Table 39 indicates the group of students most interested in this area were students who chose the agricultural professions. The Ph. D. study by Dr. Christensen, 1967, Ohio State University, Education for Off-Farm Agricultural Occupations In Nevada indicated this category had the largest potential for professional workers in agriculture.

Economics and management of a ranch or business was second with an average of 32 per cent of the

students interested. Table 39 indicates that 83 per cent of the students who selected as an occupational choice agriculture and off-farm business, 45 per cent of the students selecting agricultural professions and 33 per cent of the students selecting business and public service were interested in economics and management of a ranch or business. The information in this table indicates that not only vocational departments but other sections of the school should give more emphasis to this important area.

Table 39 does not contain much that would not be expected except the group most interested in leadership training is the college oriented students. The agriculture production, business and public service are higher than the other groups in interest in leadership training. Table 38 indicates the 12th grades are more interested in leadership training than younger classes.

An examination of the average percentage of each category as a whole indicates students who are planning a future in agriculture production are the most interested in these types of classes. Students expecting careers in Agriculture professions are next. About one fourth of the students electing business and public service, and skilled trades and transportation are also interested in these types of classes.

EXPLANATION OF READING TABLES 39, 41, 43

The next to last horizontal column gives the number of students who selected each occupational category or categories. For example 155 students (Table 2) indicated an occupational choice of the categories Agriculture production and off-farm business. 87 students indicated an interest in conservation, etc. which is 56 percent of the 155.

The average percent of each occupational category was found by averaging the percentages in each vertical column. The 58% in agriculture production & off-farm business was found by adding the percentages and then dividing by seven. This is only a general average and not weighted.

TABLE 38

INDICATED MALE STUDENT INTEREST IN CERTAIN BROAD AGRICULTURAL-TYPE CLASSES
IN SELECTED NEVADA HIGH SCHOOLS

Agricultural-Type Classes	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**
Conservation, Forestry, Etc.*	184	56	167	58	283	53	185	53	16	67	45	60
Econ. & Mgt. of Ranch or Business	122	37	82	29	142	27	110	31	13	54	27	36
Mgt. of Livestock	107	32	81	28	93	18	74	21	13	54	28	37
Leadership Training	73	22	82	29	143	27	76	22	6	25	15	20
Range Mgt., Soils & Crops	106	32	80	28	103	19	64	18	17	71	28	37
Veterinary Medicine	90	27	82	29	103	19	48	14	7	29	24	32
Horticulture	40	12	44	15	66	12	29	8	3	13	12	16

TABLE 38 - Continued

Agricultural-Type Classes	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Total	
	No.	%**	No.	%**	No.	%**	9	10	11	12	No.	%**
Conservation, Forestry, Etc.*	98	57	45	74	18	64	58	58	57	51	1,041	56
Econ. & Mgt. of Ranch or Business	68	40	35	57	6	21	35	30	33	32	605	32
Mgt. of Livestock	52	31	25	41	8	29	30	26	25	24	481	26
Leadership Training	49	29	16	26	3	11	20	19	28	34	463	25
Range Mgt., Soils & Crops	44	26	24	39	9	32	26	26	25	25	475	25
Veterinary Medicine	37	22	19	31	8	29	27	20	22	22	418	23
Horticulture	34	20	8	13	3	11	14	13	13	12	239	13

*Each type of class stands alone as if in a separate table.

**Per cent of the total male students in the study who indicated an interest in certain classes.

TABLE 39

EXPRESSED INTEREST IN CERTAIN AGRICULTURAL-TYPE CLASSES GROUPED ACCORDING TO THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Types of Agricultural Classes	Ag. Prod. Off-Farm Business		Skilled Trades, Trans.		Business, Public Service		Tech-nicians		Ag. Profs.		Other Profs.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Conservation, Forestry, Etc.*	87	56	281	54	164	55	63	46	213	93	229	45
Econ. & Mgt. of Ranch or Bus.	129	83	146	28	99	33	24	18	103	45	100	20
Mgt. of Livestock	131	84	110	21	59	20	14	10	117	51	48	9
Range Mgt., Soils & Crops	119	76	114	22	54	18	14	10	123	41	48	9
Leadership Training	49	31	63	12	73	24	25	18	45	20	207	41
Veterinary Medicine	92	59	76	15	52	19	16	12	91	40	90	18
Horticulture	25	16	51	10	49	16	16	12	43	19	63	12
Number of Students Selecting Each Occupational Category**	155		518		300		136		229		510	
Average Percentage of Each Occup. Category as a Whole		58		23		26		18		44		22

*Each type of class stands alone as if in a separate table.

**Numbers found in Table 2.

Tables 40 and 41 give an indication of student interest in trades and industrial-type classes. In reviewing Table 40 practically all schools ranked the classes in about the same order. It would appear that grade level has very little affect on interest in the trades and industrial-type classes.

The purpose of Table 41 is to determine the interest of the different groups of students according to their selection of an occupational choice by category. The 518 students who selected the occupational categories skilled trades and transportation were the most interested in these kinds of classes. This is as should be expected. The 155 students who selected agriculture production and off farm business were almost as high. A review of the two columns agriculture production compared to skilled trades reveals some great similarities as well as some differences. The students opting the skilled trades are much more interested in auto mechanics and auto body repair than the students selecting agriculture. On the other hand agriculture students are much more interested in tractor and heavy equipment repair. It is apparent that there should be specialized, but separate classes in the above two important areas that are especially designed for agriculture students, as well as skilled trades students. The information in this table supports the fact that many industrial type classes can be profitably taught to both groups of students. These areas are welding, machine shop, building construction, and electrical wiring.

In comparing the students who selected the occupational category agriculture production and off-farm business compared with students selecting agriculture professions there is a marked difference in the two. The students selecting agriculture professions are not interested in these industrial type classes as compared to students selecting agriculture production. This demonstrates the value of teaching agriculture science classes separate from the mechanics classes because there is a different appeal to two distinct types of students. In contrast in Table 39 the interest of the agricultural professions group related fairly closely to that of the agricultural production and off-farm business groups of students.

One point of interest in Table 41 is that nearly all students as a whole in each occupational category ranked the trade and industrial classes in about the same order. In other and agriculture professions the percentages are lower than other four groups but the order is about the same. There are a few exceptions such as; the "technicians" are more interested in electrical wiring.

It is indicated when comparing each of the students electing each of the occupational categories in Table 41 that these groups with a vocational focus there is a higher interest rate in the classes than the more professionally oriented groups of students.

TABLE 40

INDICATED MALE STUDENT INTEREST IN CERTAIN BROAD TRADE AND INDUSTRIAL-TYPE CLASSES IN SELECTED NEVADA HIGH SCHOOLS

Trades and Industrial Classes	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**
Auto Mechanics*	168	51	152	53	235	44	200	57	15	63	26	35
Gasoline & Diesel Engines	168	51	146	51	169	32	166	47	14	58	22	29
Welding	152	46	133	47	146	27	126	36	18	75	25	33
Machine Shop & Metal Work	121	37	100	35	135	25	122	35	16	66	24	32
Auto Body Repair	110	33	101	35	122	23	129	37	8	33	21	28
Building Construction	114	35	102	36	124	23	103	30	16	42	25	33
Tractor & Heavy Equip. Repair	116	35	93	33	115	22	108	31	13	54	20	27
Electrical Wiring	90	27	96	34	111	21	66	19	8	33	17	23

TABLE 40 - Continued

Trades and Industrial Classes	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Total	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Auto Mechanics*	100	59	42	69	16	57	51	52	50	52	949	51
Gasoline & Diesel Engines	79	46	40	66	17	61	46	43	44	45	821	44
Welding	99	58	42	69	17	61	43	41	36	45	758	41
Machine Shop & Metal Work	73	43	30	49	14	50	39	34	32	33	635	34
Auto Body Repair	81	47	26	43	11	40	34	31	32	36	609	33
Building Construction	65	38	30	49	3	11	34	29	31	31	576	31
Tractor & Heavy Equip. Repair	58	34	28	46	14	50	35	29	30	29	565	30
Electrical Wiring	69	41	27	44	8	29	26	27	23	31	492	26

*Each type of class stands alone as if in a separate table.

**Per cent of the total male students in the school who indicated an interest in certain classes.

TABLE 41

EXPRESSED INTEREST IN CERTAIN TRADES AND INDUSTRIAL-TYPE CLASSES GROUPED ACCORDING TO THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Trades and Industrial Classes	Agr. Prod. Off-Farm Business		Skilled Trades, Trans.		Business Public Service		Tech-nician		Agr. Profs.		Other Profs.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Auto Mechanics*	91	59	374	72	133	44	70	51	87	38	189	37
Gasoline & Diesel Engines	91	59	338	65	115	38	58	43	76	33	139	27
Welding	101	65	305	60	99	33	56	41	73	32	120	23
Machine Shop & Metal Work	83	54	255	49	83	28	50	37	62	27	98	19
Auto Body Repair	55	35	271	52	97	32	43	32	49	21	90	18
Building Construction	61	39	204	39	97	32	37	27	65	28	109	21
Tractor & Heavy Equip. Repair	101	65	237	46	73	24	29	21	54	24	69	14
Electrical Wiring	48	31	177	34	66	22	63	46	44	19	92	18
TOTAL EACH OCCUPATIONAL CATEGORY**	155		518		300		136		229		510	
AVE. % FOR EACH OCCUPATIONAL GROUP FOR COMPARISON PURPOSES		51		52		31		37		28		22

*Each type of class stands alone as if in a separate table.

** Numbers found in Table 2.

In discussion Table 42 one must remember we included only boys in the study. If girls had been included the totals would possibly have been much higher than 22 per cent for office occupations. The group of most interest in office occupations is the college oriented group. (Table 43)

As has been stated before the percentage of students (16) interested in sales is low compared to the opportunity for employment. There does appear to be, however, slightly higher interest in the 11th to 12th graders. This is possibly the case since these groups are old enough to engage in some employment. Table 43, unfortunately, again brings out the point with boys, there is no great interest in sales and service. The groups with the highest interest in sales and service are in business and the professions.

There is only one school in the study (Fallon) that teaches aeronautics. It appears (Table 43) that if offered it would attract mainly the technicians and the college oriented students.

Table 43 indicates a high interest (83%) in the technicians group for electronics.

TABLE 42

INDICATED MALE STUDENT INTEREST IN CERTAIN BUSINESS & TECHNICAL-TYPE CLASSES IN SELECTED NEVADA HIGH SCHOOLS

Business & Technical Classes*	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**	No.	%**
Office Occupations	59	18	63	22	125	24	86	25	4	17	17	23
Culinary Arts	27	8	38	13	64	12	28	8	2	8	17	23
Sales (Dist. & Marketing)	43	13	58	20	90	17	46	13	1	4	12	16
Electronics	106	32	105	37	181	34	130	37	5	21	21	28
Intro. to Aeronautics	116	35	106	37	198	37	121	34	3	13	22	29

TABLE 42 - Continued

Business & Technical Classes*	Yerington		Fernley		Smith		Schools Combined					
							Grade Level by %**				Total	
	No.	%**	No.	%**	No.	%**	9	10	11	12	No.	%**
Office Occupations	38	22	14	23	4	14	26	19	21	25	410	22
Sales (Dist. & Marketing)	31	18	17	28	1	4	15	13	19	19	299	16
Culinary Arts	24	14	12	20	1	4	12	12	11	11	213	11
Electronics	67	39	19	31	8	28	32	36	33	38	642	34
Intro. to Aeronautics	52	31	22	36	12	43	34	38	34	33	652	35

*Each type of class stands alone as if in a separate table.

**Percent of the total male students in the school who indicated an interest in certain classes.

TABLE 43

EXPRESSED INTEREST IN CERTAIN BUSINESS AND TECHNICAL CLASSES GROUPED ACCORDING TO THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Business and Technical Classes*	Occupational Choices by Categories											
	Agr. Prod. Off-Farm Business		Skilled Trades, Trans.		Business, Public Service		Tech-nicians		Agr. Profs.		Other Profs.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Office Occupations*	20	13	78	15	81	27	38	28	28	12	164	32
Sales (Dist. & Marketing)	14	9	72	14	84	28	10	7	24	10	94	18
Culinary Arts	14	9	47	9	47	16	20	14	18	8	67	13
Electronics	17	11	150	29	104	35	113	83	53	23	201	39
Intro. to Aeronautics	22	15	140	27	100	33	71	52	77	34	239	47
TOTAL EACH OCCUPATIONAL CATEGORY**	150		518		300		136		229		510	
AVE. % FOR EACH OCCUPATIONAL GROUP FOR COMPARISON PURPOSES		11		19		28		36		17		30

*Each type of class stands alone as if in a separate table.

**Numbers found in Table 2.

CHAPTER II

Section 8 - Actual and Expected Student Mobility

Tables 44, 45, and 46 are included for the purpose of comparing students' vocational choice by category with expected and actual mobility. Table 44 indicates the actual extent students move during their school career. A move was considered to be that other than his normal school attendance pattern. For example, in the case of the Wooster High School, a student could have attended one of several junior high schools. This would not have counted as a move.

The most important information comes from the 12th grade for the schools combined. This shows 80 per cent of the students have attended the same junior and senior high school, 12 per cent have moved one time, six per cent have moved twice and one per cent have moved three or more times. The schools that have the greatest mobility are Wooster, Churchill, and Fernley. The schools with the least are Lund, Lincoln and Ely. A generalization can be made as follows: "The greater the isolation of the school the less the student movement." The same generalization can be made in a different way. "The nearer the school is to the Reno area the greater the student movement."

TABLE 44

ACTUAL MOBILITY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Degree of Mobility	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Same Jr. or Sr. H.S.	267	81	256	91	432	82	324	93	24	100	71	95
Moved One Time	39	12	21	7	73	14	20	6	0		3	4
Moved Twice	16	5	5	2	21	4	4	1	0		1	1
Moved Three or More	6	2	0		2	0	1	0	0		0	
TOTAL RESPONDING	328		282		528		349		24		75	
NO RESPONSE	2		4		3		2		0		0	

TABLE 44 - Continued

Degree of Mobility	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Total	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Same Jr. or Sr. H.S.	152	89	48	79	25	89	96	87	85	80	1,599	87
Moved one Time	13	8	11	18	3	11	3	11	12	12	183	10
Moved Twice	3	2	1	2	0		1	2	2	6	51	3
Moved Three or More	2	1	1	2	0		0	0	0	1	12	1
TOTAL RESPONDING	170		61		28		356	558	508	423	1,845	
NO RESPONSE	0		0		0		4	3	3	1	11	

Table 45 shows some basic contrasts with Table 44. In this question the students were asked "where do you believe you will be living approximately ten years from now?" In contrast with data in Table 44, it should be noted that movement of students while in high school had very little correlation with expected mobility after leaving school. The boys in the schools, such as Ely and Lincoln, indicated the least student movement when in school, while they expected the greatest outward mobility from the county after leaving high school.

It appears that for the schools as a whole, sixty percent plan to leave the state, forty percent plan to remain. Of those who plan to remain in Nevada the ratio is about three to one expecting to remain in the same county. There is not too much evidence to indicate how reliable this 60 percent outward movement from Nevada is, except (Table 59) for the 463 employed brothers only 37 percent had left the state. This would indicate that 60 percent outward movement from the state may be high. In the above table for those who had remained in Nevada the ratio was about three to one who stayed in the same county.

Table 45 demonstrates that the expected mobility is greatly different in the schools in the state. For example, one out of ten in Ely and Lincoln, contrasted with four out of ten in Wooster High School expect to remain in the same county.

In the evaluation and planning of local vocational programs for a given high school the expected outward mobility of the students must be considered and is an important factor in planning and evaluating local programs. How far can vocational programs be planned on the basis of local employment potential reflected by a student's desire to continue to live in the same county?

The problem of follow-up of students is important, but more difficult where the students move to other states. Often where here is a high expected mobility out of the local county the schools are small in size. This limits the number and variety of different vocational programs. The problem of small high schools cannot be overlooked in planning vocational programs. There is some evidence (Table 36) that where there is a high expected mobility out of a county there is also a deficiency in adequate tools and space for vocational programs.

This study does not include, to any refined degree, such important occupations as health services, scientific or technical occupations such as those brought on by the advent of the computer. There is some evidence to indicate that students expecting to go into these fields are closely allied with the college oriented student and does not offer significant employment potential for the non-college bound student. There is very little evidence to indicate that non professional students who expect to be mobile are filling these types of occupations (Section 9).

If the expected mobility is mainly outward in the more isolated schools contrasted with the urban (Reno in the study) it would appear that if a community college were built it should be in Reno which has the greater employment stability and the greatest potential for jobs.

TABLE 45

EXPECTED MOBILITY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS*

Residence	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	Numbers and Percentages of Students by School											
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Out of State	187	59	143	53	278	55	254	77	7	29	50	70
Same Nevada County	91	29	91	33	207	41	38	11	13	54	6	8
Another Nevada County	41	13	38	14	20	4	39	12	4	17	15	21
TOTAL RESPONDING	319		272		505		331		24		71	
NO RESPONSE	11		14		26		20		0		4	

TABLE 45 - Continued

Residence	Yerington		Fernley		Smith		Schools Combined Grade Level by %				Totals	
	No.	%	No.	%	No.	%	9	10	11	12	No.	%
Out of State	95	62	27	46	15	54	63	57	58	63	1,056	60
Same Nevada County	35	22	18	31	9	32	23	34	30	25	508	29
Another Nevada County	27	17	14	24	4	14	14	9	11	12	202	11
TOTAL RESPONDING	157		59		28		345	542	479	400	1,766	
NO RESPONSE	13		2		0		15	19	32	24	90	

*Students were asked where they would be living approximately ten years hence.

Table 46 is included to show differences in expected student mobility according to their occupational choice by category. The occupational categories are ranked according to the percentage of students that expect to stay within the same county.

The public schools exist to educate all students to their highest potential. To a degree all education supports and is vocational education, but the primary focus of this study is on that kind of education that leads to employment competency that does not require the baccalaureate degree.

The information in Table 46 cannot be considered by itself, because first of all there must be a job before a student can be employed. In some areas of the state that are devoid of employment potential students should be encouraged to move. There is nothing in the study to discount the need of importance of the professions, but there is strong support for suggesting the need to redirect many students who have indicated a desire for a college career into the vocational fields.

The totals in Table 45 indicate the following generalization can be made: for every ten high school boys six plan to leave the state, one plans to leave the local county but remain in Nevada and three plan to remain in the same county. The primary point in Table 46 is that it gives evidence for the need for strong local financial support for vocational programs in agriculture, skilled trades and business because these students are most apt to stay in the local county.

There is some value in determining the occupational expectancies of the students who plan to stay in the same county. By comparing students occupational choice by category with their expectations for leaving the county we can get a fairly good picture of the vocational aspirations of those who plan to stay.

The vocational choice by category of every 100 boys in the study who expect to stay in the same county is about as follows: (Table 46, column - same Nevada County)

Agr. Production and off-farm Agr. business	48
Skilled trades	31
Business (sales and service)	30
Transportation and mining	27
Technicians	26
Professions (agriculture & other)	26
Public Service	21

From the above information it would appear that the vocationally oriented students will stay in Nevada in larger numbers than those choosing the academic areas (public service excepted). Table 49 and 50 will discuss the need for directing more students into the categories of business, and transportation and mining. Agriculture and business, along with some facets of the skilled trades, transportation and mining depends on parental financial support and assistance in establishment. Several tables emphasize the point that the category of business -- sales and service -- holds very little interest for students planning to enter this important field, but of those that do plan to enter about 41 percent of the students' fathers are in business (Table 50).

TABLE 46

THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS GROUPED ACCORDING TO THEIR EXPECTED PLACE OF RESIDENCE TEN YEARS HENCE

OCCUPATIONAL CATEGORIES	Expected Place of Residence							
	Same Nevada County		Another Nevada County		Out of State		Total	
	No.	%	No.	%	No.	%	No.	%
Agr. Prod. & Off-farm Agr. Business	73	48	26	17	53	35	152	8
Skilled Trades	111	31	41	11	210	58	362	21
Business (sales & service)	34	30	10	9	69	61	113	6
Transportation & mining	34	27	14	11	79	62	127	7
Technician	34	26	11	8	87	65	132	8
Professions	185	26	81	12	437	62	703	40
Public Service	35	21	19	11	115	68	169	10
TOTAL INDICATING RESIDENCE	506		202		1050		1758	
PERCENT OF TOTAL		29		11		60		

CHAPTER II

Section 9 - The Relationship of Occupational Choice by Category with the Actual Employment of Fathers and Brothers

Tables 47 through 50 give a detailed comparison of the students' occupational choice by category with the actual employment of fathers and brothers. The purpose of this section is to compare the broad occupational employment categories of fathers and brothers to the students' occupational choice to determine implications in planning vocational programs. Supportive tables and additional information can be found in the appexdix Tables 51 through 54.

Table 47 gives the numbers and percentages of fathers engaged in the various occupational categories. The Wooster High School is the only urban school in the study. It differs in that there is a higher percentage of fathers in the categories of business and professions. Ely is distinct in that about 66 per cent of the fathers are employed in the skilled trades and mining and transportation.

There is nothing unusual in the table. It indicates the employment of fathers is closely related to the type of economy in the locality of the high school.

The information for the tables in this section was obtained from the students. They only had to check broad categories as in Table 2. The only problem for the student was when the father held two or more jobs. This was the case with 15% of the fathers (Table 54). Since the students were told - major employment or where he earns the most money - this mainly proved to be a minor problem.

TABLE 47

OCCUPATIONAL CATEGORIES OF FATHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS*

Occupational Categories	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Farming or Ranching	57	19	39	16	9	2	9	3	12	60	3	5
Off-Farm Ag. Business	7	3	4	2	10	2	4	2	0		2	3
Business (Sales & Service)	38	12	51	21	187	37	31	9	0		15	24
Skilled Trades	69	23	44	18	104	21	98	30	4	20	9	15
Transportation & Mining	50	16	55	22	49	10	117	36	3	15	22	35
Technician	13	4	8	3	19	4	12	4	1	4	0	
Public Service	40	13	17	7	44	9	24	7	0		6	10
Agriculture Professions	5	2	11	4	16	3	5	2	0		3	5
Other Professions	25	8	19	8	66	13	23	7	0		2	3
TOTAL RESPONDING	304		249		504		323		20		62	
UNKNOWN, RETIRED, DE-CEASED, NO RESPONSE	26		38		27		28		4		13	

TABLE 47 - Continued

Occupational Categories	Yerington		Fernley		Smith		Total	
	No.	%	No.	%	No.	%	No.	%
Farming or Ranching	25	15	8	14	15	54	177	10
Off-Farm Ag. Business	3	2	0		2	7	32	2
Business (Sales & Service)	21	13	4	7	4	14	351	20
Skilled Trades	37	23	17	29	2	7	384	22
Transportation & Mining	46	29	19	32	2	7	363	21
Technician	2	1	2	3	0		57	3
Public Service	11	7	7	11	1	4	150	9
Agriculture Professions	4	2	0		1	4	45	3
Other Professions	15	9	2	3	1	4	153	9
TOTAL RESPONDING	164		59		28		1,712	
UNKNOWN, RETIRED, DECEASED NO RESPONSE	6		2		0		144	

*This question was written so the students' occupational choice can be compared with that of the fathers and brothers.

Table 48 gives the actual employment of brothers of students in the high school. Supportive tables can be found in the appendix, Tables 55 through 59. There was no attempt to match or compare high school students with their brothers out of school. This was used only as a means to get a population of young men in the local school area.

This table only includes brothers who were employed full or part time. There were 387 brothers employed full time, 44 employed part time and 32 unemployed at the time the questionnaire was taken (Table 59). The average age of the brothers in the study was about 23 to 25 years of age. Some professions and other fields require an age older than this for entry or establishment. For this reason this technique for predicting future employment trends is not completely reliable; but in spite of this, it is believed the information given is of great worth in suggesting employment trends and a means of evaluating and improving existing vocational programs.

Table 59 indicates that of the 463 employed brothers, 21% live in the same county as the high school. An additional 82 live in other parts of Nevada. One hundred seventy-one brothers live in other states. The fact that 37 per cent of the employed brothers live out of the state gives an indication of the expected mobility of students about five to ten years after high school graduation. This indication of out of state mobility lends a degree of additional meaning to the data compared to the fathers who all live and work in the state.

TABLE 48

ACTUAL EMPLOYMENT OF BROTHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS*

Occupational Categories	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Farming or Ranching	12	12	10	17	3	3	5	6	3	43	2	11
Off-Farm Ag. Business	4	4	1	2	2	2	0		1	14	0	
Business (Sales & Service)	21	20	15	25	52	44	17	19	0		4	21
Skilled Trades	30	29	9	15	25	21	17	19	2	29	3	16
Transportation & Mining	14	14	10	17	13	11	34	38	1	14	2	11
Technician	3	2	2	3	11	9	5	6	0		1	5
Public Service	8	8	9	15	4	3	9	10	0		1	5
Agriculture Professions	0		2	3	1	1	0		0		0	
Other Professions	11	11	1	2	7	6	3	2	0		6	32
TOTAL RESPONDING**	103		59		118		90		7		19	

TABLE 48 - Continued

OCCUPATIONAL CATEGORIES	Yerington		Fernley		Smith		Total	
	No.	%	No.	%	No.	%	No.	%
Farm or Ranching	2	4	0		1	10	38	8
Off-Farm Ag. Business	0		1	10	0		9	2
Business (Sales & Service)	4	9	3	30	1	10	117	25
Skilled Trades	16	34	3	30	5	50	110	24
Transportation & Mining	9	19	2	20	0		85	18
Technician	5	11	0		1	10	28	6
Public Service	7	15	1	10	1	10	40	9
Agriculture Professions	0		0		0		3	1
Other Professions	4	9	0		1	10	33	7
TOTAL RESPONDING**	47		10		10		463	

*This question was written so the students' occupational choice can be compared with that of the fathers and brothers.

**Includes only brothers who were employed or unemployed as categorized by students surveyed.

RATIONALE FOR TABLES 49 AND 50

The underlying assumption of the researcher is that the employment potential in Nevada is unique compared to other states. It is assumed that in the usage of state and national labor statistics and trends, in reference to local employment projections, they must be considered and tempered in light of this uniqueness. The rationale for this statement is that Nevada is a large state geographically and all of the schools in the study, except the Wooster High School, have a degree or isolation with a small surrounding population. The question the researcher attempted to answer was how does this isolation of the local high school influence students in seeking employment? It was his hypothesis that people living in isolated areas depend very heavily upon family and friends in obtaining and holding employment outside of the local community. For this reason they tend to enter and pursue the same type jobs of their family and friends. This often, to them, may be more important than their training. Another hypothesis was that a large state geographically provides a disproportionate number of jobs compared to a small state with the same population in transportation, construction and jobs related to public land management.

Tables 49 and 50 are not meant to imply that the world of work and employment opportunities are static. These tables were constructed on the premise that fathers and brothers' actual employment directly influence employment patterns of students.

A careful study of these tables and other data included supports to a degree the researchers basic assumption.

Table 49 is probably the most meaningful table in the study because it gives an indication of how the students' occupational choice by category relates to the actual employment of fathers and brothers. The figures for students', fathers', and brothers' actual employment comes from Tables 2, 47, and 48 respectively.

The principal meaning in the table comes from the columns needed or surplus changes according to fathers' or brothers' employment projections. These columns were calculated to show the hypothetical number of students who will need to change their occupational choice by category to bring a balance in the projected employment made on the basis of fathers' and brothers' actual employment. The discussion and tables treat the categories as a whole and there is no regard given to individual student capabilities or competencies. There is nothing to suggest that an exceptional student cannot be successful or find employment in any of the occupational categories. The discussion is only to show a hypothetical situation without directly indicating things will actually happen this way.

The column under fathers and brothers entitled "needed" shows that more students should be encouraged to enter these categories. The columns under "surplus" indicates students should be discouraged from entering these categories. The size of the numbers in the fathers column compared to the brothers indicates the amount of change, also the importance of the employment needs of one category compared with another.

This table gives a comparison of the relevance of projecting occupational trends based on actual employment of fathers compared with that of brothers. The point of particular interest is that when the fathers and brothers are converted to the same ratio in numbers as students there is a very close correlation between the two. This is important because it shows that either method could be used with about the same authenticity of making future employment projections.

The category of business--sales and service--shows that the field is rapidly expanding because in the brothers column, 98 more students are needed than shown by the fathers column. The reverse is true with transportation and mining where the brothers column is 46 less than the fathers.

The two areas where the greatest potential for employment of students will probably be is in BUSINESS AND SERVICE. These categories include a breakdown of jobs in the questionnaire given to the students as follows: sales, distribution, merchandising of goods, insurance, real estate, service station, banking and finance -- dry cleaning, motels, gaming, building maintenance, food services as cook or restaurant work, etc. (See Appendix Part 3).

It is most important to note that there is a need and great potential for individuals in many fields of business, particularly in industry and finance, for the individual to have baccalaureate or masters degrees. The main emphasis in this study is on the less than B.S. degree programs.

The other large category according to the questionnaire where there is considerable deficiency is TRANSPORTATION, CONSTRUCTION, MINING AND UTILITIES. This category included a breakdown of jobs in the questionnaire as follows: truck driver, railroad, aviation -- highway, drilling, power and telephone, etc. that require a knowledge of various types of equipment. (See Appendix Part 3).

A conclusion indicated by the numbers in the table is that the skilled trades, agriculture production, and agriculture off-farm business are fairly stable and do not need greater emphasis or expansion, and that these high school programs should be maintained at about the same level.

On an examination of the categories of business and service, and transportation and mining, with the jobs listed above under these categories, it appears that they are closely related to the skilled trades

and agriculture. Perhaps with a more direct emphasis on the basic facets of business and economics these two vocational areas could aid greatly the training required in these areas. It appears that the whole vocational emphasis in all divisions are going to need to become more relevant to the world of work.

The surplus side of the table would indicate that the two occupational categories of technician and public service have more students planning to enter them than needed. The national labor trends indicate an increase in these occupations so more students will probably be required rather than less. On the basis of the information in the table where there is a slight surplus indicated, this in the future will probably need only a slight expansion or emphasis in the schools in the study. Several tables indicate in the study that in the minds of the students the occupational categories of technician and those of the professions are very closely allied and related as to the training required and performance on the job.

In the questionnaire given to the students, the professions were divided into two categories--agriculture and other professions. The specific job listed in the questionnaire for the agricultural professions included the following: forester, irrigation engineer, veterinarian and employment in certain governmental agencies, Bureau of Land Management, Fish and Game Department, and Agricultural Extension Service, etc. . The other professions included the following: teaching, medicine, law, civil engineer, accountant, research chemist, physicist, mass media communications, social or public worker, minister, etc. The problem then is how to divert large numbers of students who have selected the professions to enter the occupational categories of business and service,and transportation and mining. The fact that fathers and

and brothers have found employment in these areas would appear to be happening through the natural process of supply and demand. It also stands to reason that when the current high school students seek employment large numbers of them will also find employment in these occupations.

The fact that colleges are screening out half or more of those that enter attests to the fact that the selection process is in operation.* But again the question of most importance, "Is this the best for the student and society?"

Table 49 indicates that on the basis of fathers' and brothers' actual employment there is more than 500 "surplus" students expecting to graduate from college in the nine schools in the study. National employment projections indicate the number needed in the professions are increasing. For example, if the anticipated increase were about 175 per cent this would be slightly more than 350 students or about the number of students that have average grades of "A" and "B" in English and mathematics. (Table 8)

The causes of college attrition are hard to actually determine and include more than poor grades in English and mathematics. To determine the effect of poor English grades on college dropouts could be the basis for another study, but the fact remains that lack of success in college English is an important factor.

The problem of directing about 400 or more students away from anticipating or attempting to find success in the professions is a real problem.

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*AVA Journal, December, 1962

As has been stated before, all of the potential employment and occupations were not included in the study but this section of the study indicates the "needed" or "surplus" occupational categories and the changed direction in student occupational choice by categories that should be made.

The problem then is to improve the instruction, image and programs in those occupational categories that have a potential for future employment. The second problem is for vocational educators and counselors to continue to work with students who lack the potential and capabilities to succeed in areas of expected surplus and help them to pursue those occupational categories which have the greatest potential for employment.

TABLE 49

SUMMARY OF PROJECTED CHANGES IN STUDENTS' OCCUPATIONAL CHOICE BY CATEGORY TO OBTAIN A BALANCE IN EMPLOYMENT REQUIREMENTS ASSUMING THERE IS RELEVANCE IN THE FATHERS' AND BROTHERS' ACTUAL EMPLOYMENT

Occupational Categories	Student's Occupational Choice		Actual Occupation or Employment				*Needed or Surplus Changes According to:			
			Fathers		Brothers		Fathers**		Brothers**	
	No.	%	No.	%	No.	%	N	S	N	S
Business (Sales & Service)	118	6	351	20	117	25	261		359	
Trans. & Mining	135	7	363	21	85	18	257		211	
Skilled Trades	383	21	384	22	110	24	31		65	
Farming & Ranching	136	7	177	10	38	8	55		19	
Off-Farm Ag. Business	19	1	32	2	9	2	16		18	
Professions, Ag. & Other	739	40	198	12	36	8		526		593
Technician	136	7	57	3	28	6		74		22
Public Service	182	10	150	9	40	8		20		19
TOTALS	1,848		1,712		463		620	620	672	634

**Conversion factor--to get the number of fathers and brothers in the same ratio as students was found by multiplying the totals in the fathers column by 1.08, brothers by 4.08. Then this was subtracted from the number in the students' occupational choice.

N = Needed or shortage

S = Surplus

Table 50 gives the percentage of boys who selected the same occupational category in which their father was employed. This table gives an indication as to the categories of fathers' employment that students anticipate entering.

The greatest relationship between the students occupational choice by category and their fathers actual employment was the professions. Seventy percent of the fathers in the professions had sons who expected to enter the professions. Only thirteen percent of fathers engaged in business had sons who expected to enter the business field, but of the 108 students who did expect to enter this field forty four had fathers in business.

This table does not offer too much help in determining which parents the vocational educator should work on most to get them to change their attitude about vocational courses. The problem of parental influence on occupational choice of their children is most difficult to measure. Table 26 indicated that only one per cent of the students said the reason for not taking more vocational classes was because of the decision of their parents. It appears easier to identify the students who should enroll in vocational courses than it is to change the attitude of parents.

The tables in Section 4, particularly Table 14, indicate the great differences of vocational courses offered to the students. In the larger schools in the study there is enough variety in courses to provide training for the employment needs of most of the students in these schools. In the smaller schools not much more can possibly be done except (used advisedly) consolidation with the larger schools. It is recognized that schools 50 to 70 miles distant from larger schools are possibly too far for consolidation.

TABLE 50

THE OCCUPATIONAL CHOICE BY CATEGORY OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS GROUPED ACCORDING TO THE ACTUAL OCCUPATION OF THEIR FATHERS

Occupational Categories	The Percentage of Students who Selected the Same Occupational Category as Their Fathers													
	Ag. Prod & Ag. Bus.		Business Sales & Service		Sk. Trades Trans. & Mining		Technicians		Public Service		Professions		Total Students	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Ag. Prod. & Ag. Bus.	83	40	8	2	40	2			4	2	7	3	142	8
Bus. (Sales & Service)	6	3	44	13	33	4	2	4	12	8	11	6	108	6
Skilled Trades Trans. & Mining	53	26	70	20	272	36	13	23	32	22	18	9	458	27
Technicians	7	3	31	9	50	7	8	14	22	15	9	5	127	7
Public Service	15	7	32	9	80	11	4	7	24	16	14	7	169	10
Professions	44	21	163	47	271	36	30	52	55	37	139	70	702	41
No. of Fathers Who are Actually Working in Each Occupational Category	208	100	348	100	741	100	57	100	149	100	198	100	1706	

CHAPTER III

DISCUSSION, MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

DISCUSSION

The major purpose of the study

In the formulation of this chapter which summarizes and capsulizes the nine sections in Chapter Two, it is imperative that the essential meaning be reported. It is important to determine if the questions or concerns that formed the impetus for making the study are answered. These concerns are found in the objectives of the study.

The main objective was to determine needed improvements in vocational programs of male students in selected Nevada high schools. Three specific objectives were listed. They are as follows:

(1) To identify the characteristics and the tentative occupational choices by category and the educational plans, as well as the importance of student work experience of male students in selected Nevada high schools as they relate to planning vocational programs.

(2) To determine strengths and limitations of vocational programs and the extent to which the schools are providing vocational training in accordance with the expressed vocational choice by category of the students.

(3) To determine the relevance of student vocational choice by category with the (1) expressed student interest in certain types of vocational classes and (2) the relationship of students occupational choice by category with the actual employment of fathers and brothers.

The validity and reliability of the study

In consideration of the validity and reliability of the study one must examine the basic assumptions on which it was designed. The primary assumption was that high school boys vocational and educational plans were tentative, but yet meaningful in planning vocational programs.

In reviewing the information obtained there is no question that this is a correct assumption. The findings in this research must be considered in light of a large number of student responses. This is not a study of individual students and the generalizations made must be based on this fact. Inherent in this assumption is the fact that certain procedures in designing and administering the questionnaire must be followed. They are listed below.

(1) The questionnaires must be readable and in the language the student can readily understand. It appeared that more unusable responses were received because the student didn't understand the words used or he didn't understand the instructions as compared to his being dishonest or facetious. The "flags" at the bottom of the pages which warned the student to reread the questions were definitely helpful. Many students indicated by a "yes" that they had done what was asked. (Appendix Part III).

(2) The best results were obtained when the individual who administered the questionnaires impressed upon the minds of the students the importance of the research and asked for their cooperation. Only ten surveys out of 1866 were completely unusable. In every case the unusable surveys came from instances where either Dr. Christensen or Mr. Hartman did not give the surveys or did not meet beforehand to instruct the teachers in procedures in administering them.

(3) Students should not be asked to sign their names. We found in our original studies in Elko and Wells that students who were doing satisfactorily in school were most willing to sign their names but those who were not would not cooperate. In vocational education studies it is most important to include all students, especially those who do not fit the normal mold.

Rationale for nine broad occupational categories

It is important that the reader first read the actual questionnaire that was given to the student. (Appendix Part III). Special attention should be given to page one of the student survey which divides the occupations into nine broad categories. These categories were established after considerable study and testing. It was found that these nine categories included practically all of the occupations that the students anticipated entering, as well as the actual employment of their fathers and brothers in the study. Only nine occupational categories made it possible by use of the computer to compare student responses to one question directly with another question. This procedure helped to determine the unique characteristics of groups of students who made the same responses. This procedure proved valuable in making certain generalizations about different groups of students. A review of the twenty three tables in the study that compared the responses to one question with their responses to a directly related question will show that this system is of great value in determining specific characteristics of certain groups of students. Tables 39, 41, 43 indicate beyond question that students selecting certain occupational categories had distinct and different interests in certain types of vocational classes.

This study is mainly for the purpose of assisting the vocational educator plan his vocational programs. It is hoped it will have meaning for the academically oriented counselor and educator, but this is meant to be of secondary importance. The point of view was that if a student were going to college the vocational educator had only a secondary interest in him. The particular emphasis was on the non-baccalaureate degree student and for this reason there appeared to be no purpose in great specificity in attempting to determine students specific occupational choices. The broad categories were designed to include general employment areas that would require on the secondary level about the same kind of training. In all cases throughout the study when the term occupational choice is used the term occupational choice by category is implied.

Some of the occupational categories were particularly designed to get specific information. The study was designed to include all vocational education for boys, but the primary thrust of the study was on agriculture, trades and industry, and distributive education.

Students appeared to have no problem in completing this part of the survey. Perhaps if most of the students were in a highly urban area where more varied types of employment were common different categories would need to be used.

MAJOR FINDINGS

The occupational choices and educational plans of the male students

(1) About sixty per cent of the students made occupational choices by category for which they would need vocational-technical training rather than college training. The forty per cent who indicated they expected to graduate from college appeared to be unrealistically high.

(2) Eighty three per cent of the students who planned to enter a post secondary vocational or technical school planned to attend one outside of Nevada. It appeared that the Nevada Technical Institute, and Technical programs in the College of Agriculture at the University of Nevada Reno are not widely known or hold little interest for most boys surveyed. Since nearly all of the high schools studied were in western and northern Nevada it was not surprising that few students were interested in attending the Southern Nevada Vocational Technical Center.

(3) Students on the whole generally appeared to understand the type of schooling required for a particular occupation. The largest percentage of students that were interested in attending a post secondary vocational or technical school were those who selected the occupational category skilled trades.

(4) There were about 1.7 times as many students interested in entering the agricultural professions as there were production agriculture.

(5) The number of students anticipating a career in off farm agricultural business in Nevada is very limited.

(6) The students who selected the occupational category of agricultural professions were similar to the students who selected the occupational category agricultural production in many ways but was distinctly

different in their expressed interest in not wanting to enroll in industrial-mechanical type classes. On the whole they were similar to students who selected the category other professions, yet there was also some differences from this group.

The congruence of students tentative occupational choices by category with measures of consistency.

(1) About 60 per cent of the boys were consistent in their vocational choice by category, 25 per cent were partially consistent, and 15 per cent were inccnsistent. This was determined by comparing the occupational choice by category made by the student with the three following measures: (a) The students indication of sureness of his response, (b) The selection of type of schooling needed compared with his occupational choice, (c) Expressed future occupational plans compared to his occupational choice by category.

(2) The college oriented group were definitely more consistent than students planning to go directly to work. The data supported the fact that students going directly to work, after military obligations, were more confused and needed special help and counseling as compared to the student who indicated they were going to college.

(3) Students who indicated they planned to attend, after high school graduation, a vocational-technical school were not as consistent as the college oriented group, but like students going to work needed special help and counseling.

(4) A study of the combined grades in English and mathematics indicated that the highest percentage of students who appeared to be unrealistic in their occupational choice by category was the college oriented group.

ents who say they plan to go to college do not meet the

ty of Nevada.

lates to vocational choice by category.

ively in the summer of 1968. About 55 per cent worked

ot a major problem in some schools because most of them

o are not employed to find employment is relevant to the

to work or change to a more beneficial job? We did not

ment is inseparably related to the local employment situation.

nate is fixed with a limited number of jobs for students.

ounselors and cooperative work coordinators must work

part time employment and his expected future occupational

nt) were particularly high in agriculture. Fifty four

ss and public service were employed in business. The

o their occupational choice by category was low mainly

interest in the professions. Part time jobs in the

ial for employment. The greatest increase in employment

urs in the 11th and 12th grades. About ninety per cent

The tables show that some 66 per cent of the students

English and mathematics standards at the University o

The type of student-work experience and how it relate

(1) About 85 per cent of the boys worked productivel

during the school year. Student employment was not a

were employed. The concern to assist students who ar

following question. Do students not working wish to

ask this question. The problem of student employment

In many local situations the basic employment climate

The local vocational teachers with the guidance couns

together for best results.

(2) There is some correlation between a students' pa

employment category. The correlations (87 per cent)

per cent of students declaring a choice of business a

correlations for all boys in the study compared to th

because about 40 per cent indicated an expressed inte

professions are practically nonexistent.

(3) The older the student the greater his potential

especially for individuals other than parents occurs

of all 12th grade boys were employed or worked productively during the summer of 1968. Only about 12 per cent of this number were employed by their parents. In contrast with this, about 80 per cent of the 9th grade boys were employed but 30 per cent were employed by their parents.

(4) Students get very little help from the public schools and the employment security department in finding employment.

The extent to which the schools are providing vocational training in accordance with the expressed vocational choices of the students.

(1) It appeared that the schools on the whole were doing a good job in providing vocational training for students who expressed a vocational choice in the skilled trades and transportation, and production agriculture. The 11th and 12th grade boys who had chosen these two occupational categories had taken an average of 3.6 vocational classes per student.

(2) The schools as a whole were doing a fair job for the students who expressed an occupational choice of the two categories technicians and public service. These students as a group had taken an average of two or more vocational classes and not more than 15 per cent had taken none of them. It was not determined if the vocational classes taken were the most beneficial for the technician group particularly as compared to another set of courses.

(3) It appeared a very poor job was being done for students expressing an interest in business, sales and service. These students averaged less than two vocational classes each and 21 per cent of these students had no vocational classes.

(4) It appeared from the data that students who indicated a preference for college and the professions were not, on the whole, being overloaded with vocational classes. Of this group, for those students who had taken vocational classes averaged slightly more than one class, and thirty nine per cent had not taken any of them.

(5) There was a difference in basic philosophy of administrators and counselors on purposes and expected outcomes of their vocational programs. Part of this difference resulcs from the local situation which is affected by such things as labor unions, finance and the total capabilities of providing vocational programs. Two of the most important factors in quality vocational programs are school size and school financial support. In a review of the percentage of students enrolling in one, two, and three or more vocational programs it was apparent this differed considerably from school to school. This then was the basis for the following conclusion. Some schools were doing a far better job than others in vocational orientation; while other schools are providing good training for job entry in depth to a higher degree for more students than others.

(6) In comparing the percentage of students who anticipated entering the professions as compared to the percentage who had completed three or more vocational classes (11th and 12th grade students) it appeared all schools should provide more vocational classes.

<u>The extent to which the vocational choice by category relates to the expressed reason for taking a particular vocational class.</u>

(1) It was found the major reason boys enrolled in vocational classes was personal interest. This reason

represented 48 per cent of all students who had or were taking vocational classes. The next reason (42 per cent) was because they assisted the students career objective. The 12th grade students indicate the same percentage (45) for both reasons listed above. This indicated as students grow older a slightly higher percentage were in classes because they met their vocational objective.

(2) In the schools of Churchill, Elko, Wooster and Ely where they all have at least four different vocational programs, the main reason given by students for not taking more vocational classes was, fails to meet career objectives. In contrast to this in all of the other smaller schools the main reason centered in not offered in the school or schedule conflicts.

(3) Only one per cent of the students indicated that parental influence was the main reason for not enrolling in vocational classes. It was apparent that parental influence on vocational choice is highly important, but it is subtle, indirect and most difficult to measure.

(4) The effect of counselor or teacher influence in getting students to enroll in vocational classes was not an important factor. Only about four per cent of the students gave these as a major reason for enrolling. It could not be determined from the data whether this influence was primarily in the best interest of the student to enhance his vocational development or merely a place to send him because there was no place else. An examination of the tables on students appraisal of vocational classes would lead one to suspect the latter.

How students appraise the vocational classes taken in the high schools.

(1) Eighty three per cent of the students who had completed two or more vocational classes indicated

they were learning something of real importance and value to them.

(2) Ninety one per cent of the students who said they were in classes because it assisted them to obtain their career objective said they were learning something of real importance.

(3) One of the principal findings in the study was that there was a steady decline in satisfaction in vocational classes from ninth through twelfth grades.

(4) The average grade given for vocational classes was a "B".

(5) There was no support for the premise that vocational classes are a "wholesale dumping ground" for poor students.

(6) If we can assume that grades in English and mathematics are indicators of student academic capabilities, a ratio of five to one who received grades of "C", "D", "F" in these classes said they were learning something of real importance to them in their vocational classes.

(7) It appeared that there was a slightly higher proportion of students receiving grades of "A" and "B" in English and mathematics that reported dissatisfaction with vocational classes than report satisfaction with them. It must be recognized, however, that the total number of students was greater that received the above grades and were satisfied with their vocational classes.

(8) Students will rate the quality of teaching received and in most schools there was a rather strong concurrence of opinion. Most students were satisfied with the quality of teaching received in vocational classes. There were some exceptions to this, however.

(9) There was considerable difference in the satisfaction from school to school in the adequacy of tools, equipment and space to get the job done. As a general rule, the smaller the school, the more the dissatisfaction. About half of the students in Ely, Lund, Lincoln and Yerington definitely thought they were handicapped in this regard. In general, the older the student the more handicapped they feel for lack of tools and space.

(10) Ninety one per cent of all of the suggestions given by boys in the nine schools could be grouped in only nine categories. There was a very high correlation in these suggestions from school to school.

(11) The major suggestions listed in order of frequency by students are as follows: (1) longer class period, (2) need for more equipment, tools, and supplies, (3) more beneficial student projects, (4) larger and newer facilities, (5) more and advanced vocational classes, (6) improved supervision and discipline, (7) improved instruction, (8) better and more teachers, (9) enforced prerequisites.

A comparison of the students vocational choice by category with expressed student interest in certain types vocational classes.

(1) Student interest in agricultural, industrial, and business and technical classes changed very little from the 9th through 12th grades. About the only two classes which showed a great increase as the student became older was leadership training and electronics.

(2) In rating the three types of classes for student interest the highest interest was in industrial classes, next in agricultural, and least in business and technical type classes.

(3) Of the seven types of agricultural classes, conservation, forestry, etc. had the greatest student interest. Ninety three per cent of the students selecting the occupational category agricultural professions were interested in this type of class. All of the students in the schools studied showed considerable interest in conservation, forestry and recreation type classes.

(4) Economics and management of a ranch or business was the next type of agricultural class in which students were most interested. Thirty two per cent of all students were interested in this type of class. The greatest interest was shown by students selecting the occupational categories of agricultural production and off farm business and agricultural professions. Considerable interest was shown by those selecting the occupational categories of business and skilled trades.

(5) The college oriented students were most interested in leadership training. Those selecting the occupational category skilled trades were by far the least interested. The study supported what has long been suspected that the older student who is college bound is the most interested in leadership training, club work and public relations.

(6) About half of all boys studied were interested in auto mechanics.

(7) Students who elected the occupational categories agriculture production and off farm business were most interested in welding, and next in tractor and heavy equipment repair.

(8) Students electing the occupational category skilled trades and transportation had the highest interest of all occupational groups in the mechanical industrial type classes.

(9) Students electing the professions were least interested in the industrial type classes.

(10) The industrial type classes distinguished clearly between students selecting the occupational categories agricultural production and agricultural professions. This study supported the need for providing special classes in agricultural science so that students could enroll in them without having to take the industrial mechanical type classes.

(11) There was no great interest in any of the five classes listed under business and technical type classes. Students who indicated a desire to go to college and enter the professions and the technicians group showed the greatest interest in these types of classes.

<u>The effect of student vocational choice by category upon the actual and expected mobility of high school students</u>.

(1) Eighty per cent of the 12th grade students have attended the same senior and junior high school, twelve per cent have moved one time, six per cent have moved twice and one per cent have moved three or more times. The greater the isolation of the school the less the student movement while in high school.

(2) The more the school is isolated generally the greater the expected mobility out of the local county.

(3) Considering the nine schools as a whole, six out of ten boys expect to leave the state, three expect to remain in the same county, and one expects to leave the county but remain in the state.

(4) Of the students who expect to stay in the same county the highest percentage are in the occupational categories of agricultural production, skilled trades and business (sales and service).

(5) The higher the educational training (military careers excepted) the greater the expected mobility out of the local county and the state.

The relationship of occupational choice by category of students with the actual employment of fathers and brothers.

(1) There is very little difference in making future employment projection of students by using fathers' actual employment contrasted with brothers' actual employment. By using both and comparing one with the other provides a degree of accuracy in predicting trends.

(2) Based on the actual employment of brothers and fathers the two employment categories that will require the greatest number of future employees are business (sales and service) and transportation and mining.

(3) The occupational categories with the greatest surplus was the professions that require a B.S. degree or more.

(4) The occupational categories of skilled trades, agricultural production and off-farm agricultural business, technicians and public service appear to be fairly stable with no great emphasis or curtailment needed.

(5) The occupational category business (sales and service) has great need for future employees yet there appears to be very little interest in these type occupations for boys. It appears a new approach and a new emphasis should be followed to train students for these occupations.

(6) There is definite indication that the actual employment of fathers influences the prospective occupational choices of their sons. This relationship is much higher in some occupational categories than others.

(7) The research shows that students should not be discouraged further from entering agricultural production. There has been a great de-emphasis in this important occupation and the study shows that this should be stopped or curtailed.

(8) It appeared in the schools where vocational agriculture was taught the teachers were doing an exceptional job in encouraging students to enter the agricultural professions. It also shows that the number who expected to enter the agricultural professions greatly exceeds the potential for employment. The question that this study does not attempt to answer is what happens to students who go to college. It appears that the quality student who goes to college regardless of the reason for going succeeds and eventually finds employment. Of more major concern is the great number who are not quality students and who do not succeed in college.

CONCLUSIONS AND RECOMMENDATIONS

Since the study included nine separate high schools ranging in size from 24 to 531 boys in six separately administered school districts makes specific recommendations difficult and of limited value. The study presents a mass of data covering a great many facets of the total vocational programs provided in each school. Also, in addition to the nine schools, there is data on six small schools. (Appendix Part II).

The main value of this study should be the organization of the data in a form so that the reader can draw his own conclusions. The data collected should give the reader a comprehensive over view of the quality of vocational programs in Nevada.

Some general conclusions and recommendations are listed below. This is only a partial list. Other important recommendations can possibly be made from the information presented in Chapter II and the appendixes.

(1) One of the first conclusions is there is great differences and similarities in the vocational programs in Nevada. These have been indicated throughout the study.

(2) There is value in this type research. It demonstrates what can be done using the computer to identify the characteristics of different groups of students. This type of research takes considerable time and effort, but provides a means of making comparisons and provides meaning that cannot be obtained otherwise. A comparison of student anticipated employment compared to the actual employment of fathers' and brothers' provides a means of studying employment trends and adds to the usability and practicality of this type research.

(3) One of the assumptions of this research is that the student himself will and can provide many answers to the needs and types of vocational programs that the schools should provide. Students should periodically be given an opportunity to make an evaluation of vocational programs. Certain procedures must be followed if their judgments are of most value. These evaluations can be of great value in improving local programs.

(4) Within limits students going to work or to vocational-technical schools can be identified. The counselor or vocational teacher must not require too high a degree of refinement in determining students occupational choices. In planning vocational programs broad occupational categories are sufficient because of the cluster approach to teaching and the continued training after high school. The career selection process is developmental in nature. It has its first major start in the secondary schools and should be continued in a post secondary or community college.

There needs to be further study of ways and means of determining which students can profit most from vocational classes so they can be guided into them. In this study only three measures were used to determine student consistency of occupational choice. A further study should be made using grades as the fourth measure.

(5) There is a trend in the secondary schools to provide more vocational orientation classes and fewer classes for job entry. The implication resulting from this trend is that there must be a greater emphasis on providing more adequate post secondary programs in Nevada to give individuals that depth of training necessary for job entry. Also, there appears to be a great need to continue and strengthen

classes at the 11th and 12th grade level that are long enough in length to give, particularly those students going directly to work, job entry skills. It appears that there is evidence in the study to support the conclusion the best total vocational programs have classes with a number of varied lengths in class time. Some classes should be of limited lengths, such as single periods for one semester or a full year. The goal of these classes should be vocational orientation for the student. On the other hand there should also be vocational classes organized in sequence in long enough periods so that the students will reach job entry level competency.

(6) This conclusion grows out of number five. There is not much that can be done in the small schools to provide vocational programs in depth to meet the needs of their students. Consolidation (used advisedly) is the best answer where the distance is not too great.

There is also a danger which may emerge, and that is the impetus on the part of some to provide a number of vocational-technical post secondary schools or community colleges in locations within driving distances to larger populations. The size of the school has a direct and important bearing on the potential for quality vocational programs. This is a fundamental fact of life that cannot be discounted.

(7) There is support in this study for the fact that many schools are handicapped financially to provide good programs due to lack of equipment and facilities. Extra state and national support is needed to provide programs in depth for vocational education for job competency. One of the main findings in this study is that as students become older they become more dissatisfied with vocational programs. This situation should be completely reversed. This cannot be done without more finance and changes made to improve the overall quality of vocational programs.

(8) There is a great need to redirect almost half of the students who say they plan to go to a four year college and enter a profession into the occupations that require less than a college degree. These are the programs that can be provided by the secondary schools, adult and community colleges or technical schools.

(9) This study shows that parental influence is hard to measure and is subtle in nature with which the vocational educator finds it difficult to cope. Part of the problem is within the program themselves evidenced by the fact that as the student gets older the more they are dissatisfied with their vocational programs. In some schools students definitely feel handicapped for tools, equipment, and space. In other situations students report poor instruction, lack of discipline and lack of enforced prerequisites. There must obviously be better public relations with parents and improved counseling, but this study shows part of the problem is within the vocational programs themselves.

(10) More counseling should be provided for students planning to go directly to work or plan to go to a post secondary vocational-technical school. The study shows these students are more frustrated and least sure of themselves as compared to the college oriented student.

(11) In general in the high schools studied a high percentage of students were productively working, especially in the summers. Since the employment opportunities are limited in most school areas in Nevada, counselors, cooperative work experience coordinators, if available, and the vocational teachers must work cooperatively together to provide beneficial work experience programs.

(12) In Nevada the whole area of business (sales and service) for boys needs further study. These are the occupations that held the greatest potential for future jobs. Since a higher percentage of students interested in this field are the college bound, special short term programs in the summer might be held. All vocational programs should give greater emphasis to economics and business aspects of their programs.

(13) In some schools not now providing vocational agriculture, there is a definite interest and desire among students for such classes as conservation and forestry, economics and management, leadership training, and horticulture.

(14) The study shows that when students are enrolled in vocational classes because of the reason, assists to meet career objective, a very high percentage feel that such classes are a real and important value to them. These same students have some very pointed suggestions, which if implemented, would help them to profit more from their vocational classes. It appears the schools should seriously review these suggestions. The problem of changing class length, enforced prerequisites for vocational classes, providing more space and equipment as well as other suggestions are interwoven with the inherent school situation including size of school, organization and finance. The fact that a high percentage of students listed the same suggestions for improvement should lend a degree of urgency to make a school wide study of the kinds of improvements that can be made to assist students in benefitting most from their vocational programs.

APPENDIX, PART I

ADDITIONAL TABLES ON FATHERS AND BROTHERS

Tables 51 through 59 include additional information supporting Section Nine obtained from the students on their fathers and brothers. Reference was made to these tables in the discussion of Tables 46 through 50.

TABLE 51

EDUCATIONAL LEVEL OF FATHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

EDUCATIONAL LEVEL	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
High school graduate	127	39	110	40	183	35	132	39	7	30	29	42
Less than H.S. grad.	100	31	81	29	93	19	114	34	14	61	25	36
College graduate	51	16	48	17	163	31	45	13	0		9	13
Two yr. col. or trade sch.	44	14	37	13	80	15	47	14	2	9	6	9
TOTAL RESPONDING	322		276		519		338		23		69	

TABLE 51 - CONTINUED

EDUCATIONAL LEVEL	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
High school graduate	67	40	27	45	17	61	699	39
Less than H.S. grad.	48	28	19	32	4	14	498	28
College graduate	30	18	7	12	2	7	355	19
Two yr. col. or trade sch.	23	14	7	12	5	18	251	14
TOTAL RESPONDING	168		60		28		1803	

TABLE 52

SOURCE OF OCCUPATIONAL TRAINING OF FATHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS*

SOURCE OF TRAINING	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
On job or no spec. training	169	53	172	64	270	52	222	64	19	79	49	70
College	52	16	47	17	128	24	50	14	0		8	11
Military service	54	17	15	6	42	8	16	5	2	8	3	3
Post H.S. trade school	22	7	22	8	36	7	26	8	1	4	4	6
High school programs	11	3	3	1	11	3	9	2	0		0	
Deceased, no response	22	7	27	9	44	8	28	8	2	8	11	14
TOTAL RESPONDING	330		286		531		351		24		75	

TABLE 52 - CONTINUED

SOURCE OF TRAINING	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
On job or no spec. training	101	70	35	58	20	71	1057	57
College	28	17	5	8	2	7	320	17
Military service	14	8	8	13	2	7	163	9
Post. H.S. trade school	13	9	6	10	3	11	133	7
High school programs	4	2	1	2	1	4	40	2
Deceased, no response	10	6	6	10	0		150	8
TOTAL RESPONDING	170		61		28		1856	

*Students were asked to check the one which indicated where his father received his training for his major employment.

TABLE 53

EMPLOYMENT STATUS OF FATHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

EMPLOYMENT STATUS	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Employee	203	61	172	60	310	58	281	81	11	46	48	64
Owner or part owner	91	28	87	31	170	32	36	10	8	33	17	23
Retired, unknown, deceased	36	11	27	9	51	10	34	9	5	21	10	13
TOTAL RESPONDING	330		286		531		351		24		75	

TABLE 53 - CONTINUED

EMPLOYMENT STATUS	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
Employee	121	71	37	61	11	40	1194	64
Owner or part owner	37	22	15	25	17	61	478	26
Retired, unknown, deceased	12	7	9	15	0		184	10
TOTAL RESPONDING	170		61		28		1856	

TABLE 54

NUMBER OF JOBS HELD BY FATHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

NUMBER OF JOBS	Numbers and Percentages of Students by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Only one	241	73	226	79	442	83	274	78	11	46	55	73
Two	53	16	37	13	45	8	38	11	7	29	8	11
Three or more	15	5	4	1	6	1	6	2	2	8	6	8
Retired, unknown, deceased	21	6	19	7	38	7	33	9	4	16	6	8
TOTAL RESPONDING	330		286		531		351		24		75	

TABLE 54 - CONTINUED

NUMBER OF JOBS	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
Only one	134	79	49	80	20	71	1452	78
Two	25	15	7	11	5	18	225	12
Three or more	4	2	1	2	3	11	47	3
Retired, unknown, deceased	7	4	4	7	0		132	7
TOTAL RESPONDING	170		61		28		1856	

TABLE 55

THE AGE OF BROTHERS OUT OF SCHOOL OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

AGE OF BROTHERS	Numbers and Percentages of Brothers by School*											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
20 to 23	66	43	49	47	107	44	66	40	4	36	15	35
17 to 19	39	25	25	24	70	29	32	19	2	18	12	28
24 to 27	33	22	21	20	52	21	35	21	5	45	8	18
28 or over	15	10	10	10	14	6	32	20	0		8	18
TOTAL RESPONDING	153		105		243		165		11		43	

TABLE 55 - CONTINUED

AGE OF BROTHERS	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
20 to 23	35	36	10	43	7	44	359	43
17 to 19	25	26	9	39	4	25	218	25
24 to 27	17	18	1	5	3	19	175	20
28 or over	16	17	3	13	2	12	100	12
TOTAL RESPONDING	96		23		16		855	

*Students were asked to give information about his brother/s/ out of high school. There was no attempt to make a connection with a brother in school to his brother/s/ out of school. This was in effect a sample of a population of students out of high school.

TABLE 56

EDUCATIONAL STATUS OF BROTHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

HIGH SCHOOL GRADUATE	Numbers and Percentages of Brothers by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Yes	131	86	88	85	186	76	144	87	9	82	37	88
No	14	9	11	11	45	19	11	6	2	18	5	12
Don't know	8	5	6	5	12	5	10	6	0		1	+
TOTAL RESPONDING	153		105		243		165		11		43	

TABLE 56 - CONTINUED

HIGH SCHOOL GRADUATE	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
Yes	79	83	20	91	16	100	710	83
No	14	15	2	9	1	+	104	12
Don't know	3	3	1	+	0		41	4
TOTAL RESPONDING	96		23		16		855	

+Insignificant

TABLE 57

EMPLOYMENT OF BROTHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

EMPLOYMENT	Numbers and Percentages of Brothers by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Employed full time	74	48	51	49	82	50	95	39	5	45	16	37
Military	38	25	21	20	41	25	72	30	3	27	12	28
College	23	15	25	23	34	21	53	22	1	9	12	28
Employed part time	8	5	4	4	4	2	5	6	2	18	2	5
Unemployed	10	7	4	4	4	2	8	3	0		1	2
TOTAL RESPONDING	153		105		165		243		11		43	

TABLE 57 - CONTINUED

EMPLOYMENT	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
Employed full time	42	45	9	39	7	44	381	44
Military	23	24	6	26	2	13	218	25
College	22	23	5	22	5	31	180	21
Employed part time	6	6	2	9	1	6	44	5
Unemployed	3	3	1	5	1	6	32	4
TOTAL RESPONDING	96		23		16		855	

TABLE 58

SOURCES OF OCCUPATIONAL TRAINING OF BROTHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

Sources of Training	Numbers and Percentages of Brothers by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
On Job or No Spec. Training	75	72	41	70	81	69	61	68	6	86	9	50
College	16	16	9	15	20	17	11	12	0		8	40
Post H.S. Trade School	8	8	9	15	9	8	11	12	1	14	2	10
High School Programs	4	4	0		8	5	7	8	0		0	
TOTAL RESPONDING	103		59		118		90		7		19	

TABLE 58 - Continued

Sources of Training	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
On Job or No Spec. Training	29	64	7	75	7	70	316	68
College	8	16	2	17	2	20	76	16
Post H.S. Trade School	4	8	1	8	0		45	10
High School Programs	6	12	0		1	10	26	6
TOTAL RESPONDING	47		10		10		463	

TABLE 59

RESIDENCE OF EMPLOYED BROTHERS OF MALE STUDENTS IN SELECTED NEVADA HIGH SCHOOLS

LOCATION	Numbers and Percentages of Brothers by School											
	Churchill		Elko		Wooster		Ely		Lund		Lincoln	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
In same county	39	39	27	46	81	69	47	52	3	43	1	5
Other states	46	45	18	30	34	29	32	36	2	29	9	47
Another county in Nevada	18	16	14	24	3	2	11	12	2	29	9	47
TOTAL RESPONDING*	103		59		118		90		7		19	

TABLE 59 - CONTINUED

LOCATION	Yerington		Fernley		Smith		Combined Totals	
	No.	%	No.	%	No.	%	No.	%
In same county	9	18	2	20	1	10	210	45
Other states	19	45	6	60	5	50	171	37
Another county in Nevada	19	37	2	20	4	40	82	18
TOTAL RESPONDING*	47		10		10		463	

*Includes only students employed or unemployed.

APPENDIX, PART II

SUMMARY OF STUDENT RESPONSES TO THE QUESTIONNAIRES MADE IN THE SPRING OF 1968

Tables 60 through 90 include a summary of student responses in six schools which are not a part of the major report. In the spring of 1968, Elko, Gardnerville, Fallon, Fernley, Yerington in addition to Carlin, Gerlach, Owyhee and Wells were included in a study. In June, part of the students' questionnaires were accidentally destroyed. Those destroyed were from Elko, Fallon, and Gardnerville. It was decided at that time not to complete the study and start over and make needed improvements in the questionnaire. This was done, but the 1969 effort did not include Carlin, Gerlach, Owyhee, and Wells. All of the schools originally surveyed are now either included in this section or the body of the study except Gardnerville.

In reviewing the data collected in 1968, it was decided that the importance and correlation of information collected to that of the schools discussed in the body of the study should be published as a part of the appendix leaving the reader to make his own interpretation of the data. Certain tables are noted which correspond directly to tables in the body of the study.

In organizing the tables, it was decided to include Alamo and Austin with the four above schools in the appendix. This decision was made because of limited space and the number of schools which had to be included on each page.

The value of these tables is that they add additional support to the conclusions. They also add certain information that may be of value in planning vocational programs.

SUGGESTIONS FOR READING THE TABLES

(1) The titles for the tables are mainly written as questions as they were asked of the student.

(2) In each line the figures are given as percentages. The number of students for any item can be figured from the number of students for each school at the top of the page.

(3) In some questions the percentages do not total between 99-101. In these cases the difference is students who did not respond to the questions

(4) In Table 74, each percentage is that part of the total of students in the study interested in a given class.

(5) The schools at Alamo and Austin were surveyed in 1969. They were not included in the body of the study because of a lack of space. These two schools are included with Carlin, Gerlach, etc. On those questions where the 1969 and 1968 surveys were different will be noted.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 60 WHICH OF THE FOLLOWING VOCATIONS OR OCCUPATIONS DO YOU BELIEVE BEST INDICATES WHAT YOUR ACTUAL LIFE'S WORK WILL BE? (Corresponds with Table 2)

OCCUPATIONAL CATEGORIES	Percentages of Students						Combined %
Farming or Ranching	5	33	9	8	38	22	19
Off-Farm Ag. Business	5	7	2	0	13	6	5
Business (Sales & Service)	0	0	6	12	0	16	6
Skilled Trades	19	20	23	12	29	15	20
Transportation & Mining	10	13	17	12	8	6	11
Technician	24	7	4	31	8	9	14
Public Service	24	7	9	4	0	6	8
Agriculture Professions	1	0	9	4	4	4	4
Other Professions	10	13	20	15	0	16	12

TABLE 61 WHICH OF THE FOLLOWING VOCATIONS BEST DESCRIBES YOUR FATHER'S ACTUAL WORK? (Corresponds with Table 47)

OCCUPATIONAL CATEGORIES	Percentages of Students						Combined %
Farming or Ranching	15	43	2	27	58	35	30
Off-Farm Ag. Business	0	7	0	0	0	0	7
Business (Sales & Service)	10	28	11	12	8	18	15
Skilled Trades	35	24	23	38	17	10	21
Transportation & Mining	35	7	57	16	8	29	25
Public Service	5	7	0	0	4	0	5
Agriculture Professions	0	7	0	0	0	0	7
Other Professions	0	0	2	8	0	0	5

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 62 IF YOUR BROTHER IS EMPLOYED FULL OR PART-TIME, WHICH BEST DESCRIBES HIS PRINCIPAL EMPLOYMENT? (Corresponds with Table 48)

OCCUPATIONAL CATEGORIES	Percentages of Students						Combined %
Farming or Ranching	0	23	3	2	*	5	8
Off-Farm Ag. Business	0	0	3	0		0	3
Business (Sales & Service)	0	23	2	3		13	10
Skilled Trades	60	8	4	0		5	19
Transportation & Mining	0	15	4	2		1	6
Technician	20	0	0	0		0	20
Public Service	20	23	2	0		1	12
Agriculture Professions	0	0	0	0		0	0
Other Professions	0	8	1	0		0	5

TABLE 63 WHICH BEST INDICATES STUDENT'S LONG RANGE PLANS AFTER LEAVING HIGH SCHOOL AND COMPLETING MILITARY SERVICE? (Corresponds with Table 3)

LONG-RANGE PLANS	Percentages of Students						Combined %
Graduate 4-Year College	48	33	55	46	8	50	40
Special Trade School	24	40	9	46	71	37	41
Directly to Work	29	27	30	8	21	12	18

*Information was not obtained from Owyhee.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 64 WHERE DO YOU LIVE NOW?

Location	Percentages of Students						Combined %
Farm or Ranch	*	*	9	12	58	37	29
Town or City			81	77	21	59	60
Rural Area, Not on Farm			4	12	21	6	11

TABLE 65 WHERE DO YOU BELIEVE YOU WILL BE LIVING APPROXIMATELY TEN YEARS FROM NOW?
(Corresponds with Table 45)

Location	Percentages of Students						Combined %
Nevada - Same County	14	21	26	19	29	32	21
Nevada - Another County	38	29	19	27	25	9	25
Out of State	48	50	51	50	45	56	50

TABLE 66 NUMBER OF STUDENTS COMPLETING ALL VOCATIONAL COURSES COMBINED.

Number of Vocational Classes	Percentages of Students						Combined %
None	0	33	15	35	0	24	18
1 to 2 Vocational Classes	71	47	66	27	59	29	50
3 to 5 Vocational Classes	29	20	19	38	33	31	28
6 to 9 Vocational Classes	0	0	0	0	8	16	4

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 67 YEARS OR CLASSES STUDENTS HAVE ENROLLED IN VOCATIONAL AGRICULTURE.

Years	Percentages of Students						Combined %
One	38	7	0	15	29	21	15
Two	38	0	0	8	38	13	20
Three	19	0	0	0	13	4	9
Four	15	0	0	0	13	7	10
None	5	93	100	77	7	55	71

TABLE 68 WHAT IS THE TOTAL NUMBER OF YEARS OR CLASSES YOU HAVE ENROLLED IN AUTO MECHANICS OR SPECIAL TRACTOR COURSES?*

Number of Classes	Percentages of Students						Combined %
Only One Class	5	7	32	27	29	6	18
Two	0	0	11	0	0	3	7
Three	0	0	4	0	0	0	4
None	95	93	53	73	71	91	79

*Carlin and Gerlach have offered some general shop classes including metal work in addition to auto mechanics. In the other schools usually the shop work is part of vocational agriculture classes.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 69 HOW MANY TIMES HAVE YOU MOVED TO A DIFFERENT SCHOOL SINCE THE 7TH GRADE?

Number of Moves	Percentages of Students						Combined %
None	71	53	51	65	58	63	60
One	24	40	17	12	33	24	25
Two	5	0	11	4	0	4	10
Three or More	0	7	15	19	8	7	11

(This table is similar to Table 44 except that for Carlin, Gerlach, Owyhee, and Wells it includes the 7th and 8th grades. All the schools in Table 44 plus Alamo and Austin include only 9th and 12th grades.)

TABLE 70 WHERE DID YOU MOVE FROM TO THIS SCHOOL?

Location	Percentages of Students						Combined %
Have Not Moved	*	*	38	58	54	54	51
Same County			11	8	4	16	10
Another Nevada County			23	0	13	13	16
Another State			21	27	29	15	23

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 71 HOW SURE ARE YOU OF WHAT YOUR LIFE'S WORK WILL BE?

Degree of Certainty	Percentages of Students						Combined %
Fairly to Very Sure	66	67	43	69	71	59	61
Undecided	33	33	40	27	21	32	30
Confused	*	*	17	4	8	10	10

*Not included in 1969 study.

TABLE 72 HOW WELL DO YOU AND YOUR PARENTS AGREE ON YOUR CHOICE OF A VOCATION?

Degree of Agreement	Percentages of Students						Combined %
Agree	*	*	32	50	29	51	41
Don't Agree			0	0	4	7	6
Parents Have Not Said			36	31	38	26	33
I Don't Know			30	14	29	15	22

TABLE 73 HOW DO YOU RATE YOUR CLASSES ACCORDING TO THEIR VALUE IN HELPING YOU IN YOUR LIFE'S WORK?

Value	Percentages of Students						Combined %
Fair to Good Job of Helping	*	*	89	65	92	81	82
Some Help			9	31	4	18	16
Very Little Help			0	4	4	1	3

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 74 STUDENTS' INDICATION OF INTEREST IN COURSES, ASSUMING THEY WERE AVAILABLE.
(Corresponds with Tables 38, 40 and 42)

Types of Classes	Percentages of Students						Combined %
Economics and Management	48	53	30	50	54	46	47
Livestock - Care & Management	43	80	28	38	50	34	46
Veterinary Medicine	43	53	28	35	42	38	40
Range Mngt., Soils & Crops	52	40	17	38	42	34	37
Leadership Training	24	47	15	27	25	34	29
Horticulture & Landscape	14	13	4	15	21	19	14
Welding - Arc & Acetylene	81	87	55	54	75	65	70
Diesel & Adv. Mechanics	71	87	47	62	58	54	63
Rpr. of Tractors & Farm Mach.	67	73	40	62	71	60	62
Machine Shop & Metal Work	52	73	47	54	50	50	54
Building Const., Carpentry	43	60	36	42	42	57	47
Electrical Wiring & Plumbing	48	53	38	31	54	47	45
Electronics	52	27	45	50	46	44	44
Salesmanship	5	7	9	49	8	18	16
Office Occup., Typing	10	27	15	31	8	27	20

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 75 WHERE OR FOR WHOM DID YOU WORK THE MOST LAST SUMMER? (Corresponds with Table 10)

Employer	Percentage of Students						Combined %
Parents - No Definite Wage	0	7	15	23	33	23	20
Parents - Definite Wage	24	13	4	8	4	10	11
Other Than Parent - Definite Wage	14	0	57	54	54	63	48

TABLE 76 WHEN ARE YOU EMPLOYED OR SELF-EMPLOYED DURING THE CURRENT SCHOOL YEAR?

Working Time	Percentages of Students						Combined %
Sat. and/or After School	*	*	30	43	34	32	37
Wk. Ends Only			28	35	42	35	35
Worked Less Than Ten Hours			42	22	24	33	23

TABLE 77 WHAT IS THE MAIN TYPE OF PROPERTY THE STUDENT OWNS?

Type	Percentages of Students						Combined %
Machinery & Equipment	*	*	49	50	25	53	44
Livestock			6	19	54	28	27
Land & Buildings			13	8	13	9	11

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo 21	Austin 15	Carlin 38	Gerlach 26	Owyhee 24	Wells 68	Total 192

TABLE 78 THE TOTAL VALUE OF STUDENTS' NET WORTH OF PRODUCTIVE PROPERTY.

Value	Percentages of Students						Combined %
Less than $100	*	*	57	54	46	44	50
$101 to $1,000			23	27	33	26	27
$1,001 to $4,999			4	4	8	12	14
More than $5,000			2	8	4	13	7

TABLE 79 TYPE OF EMPLOYMENT STUDENTS HELD DURING THE PAST SUMMER. (Corresponds with Table 12)

Agr. Production	62	40	19	54	64	53	39
Business (Sales & Service)	5	20	34	19	4	31	32
Mechanics & Construction	14	0	4	4	0	0	8
Off-Farm Agr. Occupations	0	7	4	0	0	1	6
Other than Above	19	26	0	0	4	0	6
Did Not Work	0	7	34	23	4	10	20

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 80 WHAT IS YOUR AVERAGE GRADE IN ALL OF THE ENGLISH AND MATHEMATICS CLASSES YOU HAVE TAKEN?

Average Grade	Percentages of Students												Combined %	
	Eng	Math	Eng	Math	Eng	Math	Eng	Math	Eng	Math	Eng	Math	Eng	Math
A	5	5	0	7	4	9	4	8	21	4	9	19	7	9
B	45	15	7	27	17	17	42	31	63	17	29	38	34	24
C	50	60	60	67	53	34	50	42	13	42	41	29	46	46
D	0	5	33	0	19	34	4	12	4	33	19	12	16	19
F	0	0	0	0	6	4	0	0	0	0	1	1	4	3

TABLE 81 WHAT ARE YOUR AVERAGE GRADES IN VOCATIONAL AGRICULTURE OR INDUSTRIAL TYPE CLASSES

Average Grade	Percentages of Students						Combined %
A	0	*	13	15	13	22	16
B	45		13	27	42	13	25
C	40		30	8	13	13	20
D	0		6	0	17	0	12
F	0		2	0	0	0	2

*Not included in curriculum.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 82 - WHAT IS YOUR MOTHER'S EDUCATIONAL STATUS?

STATUS	Percentages of Students						Combined %
College graduate	*	*	2	4	0	6	6
Two years of college			13	4	0	10	14
High school graduate			62	81	54	62	65
8th Grade			19	12	33	16	20
Less than 8th grade			4	0	13	6	12

TABLE 83 - WHO ARE YOU LIVING WITH NOW?

RESIDENCE	Percentages of Students						Combined %
Both parents	*	*	85	73	79	87	81
Mother only			9	12	4	4	7
Father only			4	12	0	4	7
Other			2	4	17	4	7

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE - WHAT IS THE EMPLOYMENT STATUS OF YOUR FATHER?

STATUS	Percentages of Students						Combined %
Full-time	*	*	81	96	71	90	85
Part-time			4	0	13	4	7
Unemployed			4	0	0	0	4
Retired			2	4	13	1	5
Deceased			4	0	4	4	3

TABLE 85 - WHAT IS YOUR FATHER'S EDUCATIONAL STATUS? (Corresponds to Table 51)

STATUS	Percentages of Students						Combined %
College graduate	5	28	19	12	0	9	15
Two year college	20	22	13	15	4	12	14
High school graduate	45	37	34	42	50	54	44
8th grade	-	-	32	37	13	16	25
Less 8th grade	-	-	4	4	4	7	5

*Not included in 1969 study.

NUMBER OF STUDENTS IN THE STUDY	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	21	15	38	26	24	68	192

TABLE 86 HOW MUCH OF THE TIME DOES YOUR FATHER WORK ON A FARM OR RANCH?

Relationship to Farming	Percentages of Students						Combined %
Does Not Work on Farm or Ranch	*	*	89	62	33	59	61
Works on Farm or Ranch Full Time			2	23	50	35	28
Works on Farm or Ranch Part Time			4	12	13	6	9

TABLE 87 WHAT IS YOUR FATHER'S STATUS AS TO TYPE OF WORK AND OWNERSHIP IN AGRICULTURE?

Status	Percentages of Students						Combined %
Does Not Work in Ag. Prod. or Off-Farm Ag. Business	*	*	81	54	33	54	56
Owner of a Ranch or Farm			2	23	54	31	28
Employee on a Farm or Ranch			4	8	4	10	7
Works in Off-Farm Ag. Business			0	8	4	4	5
Leases or Rants Ranch or Farm			0	4	0	0	4

*Not included on 1969 study.

SCHOOLS	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	9	14	26	16	*	41	106

TABLE 88 WHAT IS YOUR BROTHER'S AGE? (Corresponds to Table 55)

Age	Actual Number of Brothers						Combined %
17 to 19	3	1	5	3	*	13	24
20 to 23	3	3	11	10		2	37
24 to 27	1	5	7	3		8	23
28 and Over	2	5	3	0		8	17

TABLE 89 WHAT IS YOUR BROTHER DOING NOW? (Corresponds to Table 57)

Status	Actual Number of Brothers						Combined %
College	2	0	2	3	*	6	12
Military Service	2	1	6	6		10	24
Employed Full-Time	5	13	11	5		19	50
Employed Part-Time	0	0	3	2		3	8
Unemployed	0	0	4	0		3	7

*Information was not obtained.

NUMBER OF BROTHERS	Alamo	Austin	Carlin	Gerlach	Owyhee	Wells	Total
	5	13	18	7	*	25	68

TABLE 90 IF YOUR BROTHER IS EMPLOYED FULL OR PART TIME OR IS UNEMPLOYED, WHERE DOES HE LIVE? (Corresponds with Table 59)

Residence	Actual Number of Brothers						Combined %
At Home	0	1	6	2	*	7	23
Same County	0	2	1	1		3	10
In Anothe Nev. County	2	5	2	1		4	21
Another State Than Nevada	3	5	9	3		11	46

TABLE 91 WHERE DID YOUR BROTHER RECEIVE HIS TRAINING FOR HIS MAJOR EMPLOYMENT? (Corresponds with Table58)

Location	Actual Number of Brothers						Combined %
College	0	4	2	0	*	5	16
Trade or Special School	1	0	3	1		5	14
H.S. Voc. Program	1	0	4	1		0	9
On The Job Training	2	5	5	2		10	35
No Special Training	1	4	4	3		5	25

*Information was not obtained.

APPENDIX, PART III

COPIES OF STUDENTS' SURVEYS AND THE INFORMATIONAL SHEET OBTAINED ON EACH SCHOOL'S VOCATIONAL PROGRAM

The students' survey form or questionnaire is included as used except a few notations have been included to explain how a particular question was tabulated. Each student's survey was hand-checked by a secretary and double-checked by Dr. Christensen before going to the computer. Certain minor adjustments were made in the compilation of some questions. The questionnaire appeared to be reasonably readable and understandable by the student. This was the result of previous studies and extensive pretesting of students in the Sparks High School.

The form on vocational programs from the schools was completed by either the principal or counselor. It served as a check to prevent duplication of classes reported by a student for Section Four, Chapter Two. It was also the basis for information in Table 14.

GENERAL INFORMATION FOR THE STUDENT

1. THIS IS A SURVEY, NOT A TEST OR EXAMINATION.

2. YOU ARE NOT ASKED TO SIGN YOUR NAME BUT WE EXPECT YOU TO ANSWER ALL QUESTIONS TO THE BEST OF YOUR ABILITY.

3. WE ARE INTERESTED IN YOUR PRESENT ACTIVITIES AND OCCUPATIONAL GOALS. THE RESULTS OF THIS STUDY WILL BE USED TO EVALUATE PRESENT VOCATIONAL PROGRAMS AND ASSIST US IN PLANNING NEW PROGRAMS. THIS IS YOUR OPPORTUNITY TO HELP US PLAN BETTER PROGRAMS TO FIT YOUR NEEDS.

4. INFORMATION ON YOUR FATHER AND BROTHER IS ASKED FOR THE PURPOSE OF HELPING US ESTABLISH TRENDS AND SUPPORT THE FINDINGS IN THE STUDY.

SPECIFIC INSTRUCTIONS (PLEASE READ TO THE STUDENTS)

1. Please read each question carefully--take your time.

2. Check only the one best answer on each question.

3. Do not leave any questions unchecked.

4. Some questions ask you to write in specific information. Please do this to the best of your ability.

5. If you have one or more brothers who is 17 years or older and not in high school we will give you a separate colored sheet to be completed for each of them. (In the students' questionnaire, the form was colored. The form is identified as: SECTION III - BROTHER'S EMPLOYMENT WHO IS OUT OF SCHOOL.)

SECTION I--STUDENT

1. Name of the High School_____

2. Year in School (1) 9th____ (2) 10th____ (3) 11th____ (4) 12th____

PART I. STUDENT'S FUTURE VOCATIONAL AND EDUCATIONAL PLANS

CAUTION: This is the most important question in the study, TAKE YOUR TIME!

3. WHICH OF THE FOLLOWING VOCATIONS OR OCCUPATIONS DO YOU BELIEVE BEST INDICATES WHAT YOUR ACTUAL LIFE'S WORK WILL BE?

   a. Check only the one best answer.

   b. Underline the actual job or occupation you believe will be your life's work.

   (1)____Farming or ranching (production of crops, animals, plants, etc.)

   (2)____Off-farm agricultural business or job (as sales and service of agricultural animals, crops, horticulture, machinery, etc.)

   (3)____Business (sales, distribution, merchandising of goods, insurance, real estate, service station, banking and finance, etc.)
   Service (dry cleaning, motels, gaming, building maintenance, food services as cook or restaurant work, etc.)

   (4)____Skilled trades (mechanic, electrician, plumber, machinist, carpenter, draftsman, etc.)
   Note: Usually requires special training for employment.

   (5)____Transportation (truck driver, railroad, aviation, etc.)
   Construction or mining or utilities (highway, well drilling, power and telephone, etc. that require a knowledge of various types of equipment.)
   Note: May or may not require special training before employment.

   (6)____Technician (electronics, data processing, TV and radio repair, air conditioning and refrigeration, laboratory and health services, etc.)
   Note: Special technical training beyond high school required (usually two years or more), but less than college graduate.

   (7)____Public service (law enforcement, military career, fireman, post office, barber, etc.)
   Note: Include in this group any job, public or private, that does not require a college degree that is not included in the above questions.

   QUESTIONS 8-9 ARE PROFESSIONS. THEY REQUIRE AT LEAST A COLLEGE DEGREE FOR EMPLOYMENT.

   (8)____Forester, irrigation engineer, Bureau of Land Management, Fish and Game, veterinary science, agricultural research, agricultural extension, etc.

(9)_____Teaching, medicine, law, civil engineer, accountant, research chemist, physicist, mass media communications, social or public worker, minister. (Include any job not listed that requires a college degree in th. group.)

Other: If not included, please list:_____

4. How sure are you of your life's work as indicated by your answer to the above question? (Check only one)

(1)_____Very sure
(2)_____Fairly sure
(3)_____I am not sure of my answer

5. Do you plan to graduate from high school?

(1)_____Yes
(2)_____Undecided

6. Which best indicates your long range plans after you leave high school and have completed military service?

(1)_____Plan to ge directly to work with no further schooling.
(2)_____Graduate from a 4-year college.
(3)_____Attend a special trade or technical school.

7. If you checked No. 3 above please list the name and place of the trade or technical school you would most like to attend:

_____

8. (Used by checker to code schools)

9. Please list the specific job or occupation you think you will have in about ten years: (Make the best estimate possible)

_____

10. (Used by checkers to determine consistency of students' response to question 3 measured by students' responses to questions 4, 6, and 9.)

STOP! DID YOU CHECK OR COMPLETE EVERY QUESTION IN THIS SECTION?

PART II - TYPE AND NUMBER OF VOCATIONAL CLASSES TAKEN BY STUDENTS.

Please help us avoid duplication by not listing the same class in two or more places.

HOW MANY YEARS OF THE CLASSES LISTED BELOW HAVE YOU TAKEN IN EACH GRADE WHILE IN HIGH SCHOOL?

(a) List in years as 1 or 2, etc.
(b) If you have taken a one semester class list it as 1/2 year.
(c) If you are enrolled in a class that meets for more than one hour, list as only one year.

11. What is the total number of years you have enrolled in the vocational type courses listed below_____?

		9th	10th	11th	12th
12.	Vocational Agriculture	____	____	____	____
	If you have counted the class in Ag. Mechanics under vocational agriculture above, don't count it again below.				
13.	Auto Mechanics	____	____	____	____
14.	Carpentry or buliding construction	____	____	____	____
15.	Wood Work	____	____	____	____
16.	Welding, metal work or machine shop	____	____	____	____
17.	Drafting or mechanical drawing	____	____	____	____
18.	Electrical Wiring	____	____	____	____
19.	Electronics	____	____	____	____
20.	D.E. Distribution & merchandising of goods, usually work in store part time	____	____	____	____
21-24	TOTALS FOR EACH GRADE (21-24 not used)	____ ____	____ ____	____ ____	____ ____

PLEASE CHECK--HAVE YOU COUNTED THE SAME CLASS IN TWO PLACES?

25. For 11th and 12th graders only. If you have taken two or less classes above check one of the following that best indicates your reason for not having completed more classes.

(1)_____Not offered in the school.
(2)_____Has conflicted with the schedule.
(3)_____Does not meet my educational or career objectives.
(4)_____Do not like the teacher/s/.
(5)_____I feel I have enough knowledge in the subject without taking the classes.
(6)_____Decision of the parent.

26. For 10th, 11th, 12th graders if you have taken or are now taking the above vocational type classes, check the one best reason for taking them.

(1)_____Helps me in my educational or career objective and to obtain employment.
(2)_____I like the teacher/s/.
(3)_____Classes are easy and help my grade average.
(4)_____The high school counselor advised me to enroll.
(5)_____No special reason except I am interested.
(6)_____Other, list_____

_____

QUESTIONS 12 TO 17 ASK FOR YOUR OPINION ON THE VOCATIONAL CLASSES (Q9) YOU ARE TAKING OR HAVE TAKEN (CHECK THE ONE BEST ANSWER ON EACH QUESTION).

27. The class instruction and shop work is:

(1)_____Too fast or too hard for me
(2)_____About right
(3)_____Too slow, I wish more were done

28. The instruction and shop or class work is:

(1)_____Important and I am learning something of real value to me
(2)_____Waste too much time on unimportant jobs

29. The tools, equipment, space for my projects and shop or class work is:

(1)_____Too limited and my progress is curtailed because of lack of them
(2)_____Adequate tools and equipment to get the job done

30. How do you rate your vocational teacher/s/ as to preparation for the classes and help given you to learn what you want to learn?

(1)_____Very poor
(2)_____Fair
(3)_____Good
(4)_____Excellent

31. How do you rate the vocational classes you have taken or are taking as to their worth to you? (Think about this over a long period)

(1)_____Very Poor
(2)_____Fair
(3)_____Good
(4)_____Excellent

32. How do you rate the length of classes or the time allowed for your vocational class work each week?

(1)_____Too short to get enough done
(2)_____About right to get work accomplished
(3)_____Too long, as a result I get bored

Please list two suggestions, if put into practice, would help you to benefit more from your vocational type classes (be specific).

33._____

_____

34._____

_____

PART III - STUDENT MOBILITY

35. Where did you attend school in the following grades?

Name of School	City	State
9th Grade		
10th Grade		
11th Grade		
12th Grade		

36. Where do you believe you will be living approximately ten (10) years from now? (Please check only one)

(1)_____In the same county in Nevada
(2)_____In another county in Nevada
(3)_____In California
(4)_____In Utah, Idaho, Oregon, or Arizona
(5)_____In another state than those listed

PART IV - AMOUNT AND TYPE OF WORK EXPERIENCE OF THE STUDENT

37. How much of the time are you employed or working for yourself or family during the current school year? (This does not include time on household chores.)

(1)_____After school during the week and most weekends
(2)_____I did not work

38. Where or for whom did you work the most last summer? (Check only one)

(1)_____I did not work.
(2)_____I worked for my parents without receiving a definite wage
(3)_____I worked for a definite agreed upon wage from my parents
(4)_____I worked for someone other than my parents for a definite salary

39. If you checked No. 4 above, how did you get your job? (Check only one) (By help means to tell about or was a factor in getting your job)

(1)_____Vocational teacher helped me
(2)_____Guidance counselor helped me
(3)_____People at employment or labor security department helped me
(4)_____Got my own job or parents or friends helped me

40. Below are listed various types of businesses in Nevada according to the main functions or service provided. Please check where you worked or were employed the most during the last 12 months. (Check only one)

(1)_____I did not work
(2)_____Agricultural production (farm or ranch work)
(3)_____Business (supply, finance, sales, service station, restaurant, etc.
(4)_____Mechanics or construction firm (as garage, mechanics helper, machinery dealer, etc.)
(5)_____Off farm agricultural business or job (as sales and service of agricultural animals, crops, horticulture, or landscaping, machinery, or government work in land, fish and game, etc.)
(6)_____Other_____

_____

WAIT A MINUTE, DID YOU CHECK ALL QUESTIONS?

41. Were you visited at your place or work or employment relative to the performance of your job during the last 12 months? (Check both 1 & 2 if they apply)

(1)_____By my vocational teacher
(2)_____By the guidance counselor
(3)_____No one visited me
(4)_____I did not work

PART V - STUDENT INTEREST IN CERTAIN VOCATIONAL CLASSES AND STUDENT GRADES

Please check your desire to enroll in the following courses, or if you have already taken them check your desire to enroll in an advanced class. Assume they were available and it is possible for you to enroll in them.

Check each and every course separately.	I Am Interested	Not Interested
42. Economics and management of a ranch or business	____	____
43. Leadership training, public speaking, Parliamentary Procedure, etc.	____	____
44. Management, care & breeding of livestock	____	____
45. Range management, soils and crops	____	____
46. Veterinary medicine, sanitation and disease control	____	____
47. Horticulture (landscape gardening, plant and flower growing, greenhouse and nursery)	____	____
48. Conservation, forestry, recreation, fish and wildlife	____	____
49. Welding: arc, acetylene, etc.	____	____
50. Gasoline and diesel engines	____	____
51. Auto body fender repair	____	____
52. Auto Mechanics (general)	____	____
53. Repair, operation, maintenance of tractors and heavy machinery	____	____
54. Building construction (carpentry, concrete and masonry)	____	____
55. Electrical wiring and plumbing	____	____
56. Machine shop and metal work	____	____
57. Electronics (radio, TV, data processing)	____	____
58. Sales (distribution and marketing of goods and service)	____	____
59. Culinary arts (food preparation meat cutting, baking, etc.)	____	____

PART V - Continued	I Am Interested	Not Interested
60. Office occupations (typing, accounting, bookkeeping, etc.)	_____	_____
61. Introduction to aeronautics	_____	_____

STOP! DID YOU CHECK EACH COURSE SEPARATELY?

62. Average grades in English and mathematics (Determined by checkers)

63. What is your average grade in all of the English classes you are now taking or have taken?

(1)A___(2)B___(3)C___(4)D___(5)F___ (6)Have not taken___

64. What is your average grade in mathematics classes?

(1)A___(2)B___(3)C___(4)D___(5)F___(6)Have not taken___

65. What are your average grades in Agricultural Sciences and Farm Mechanics classes?

(1)A___(2)B___(3)C___(4)D___(5)F___(6)Have not taken___

66. What are your average grades in Trades and Industry courses (carpentry, general shop, auto mechanics courses, etc.)

(1)A___(2)B___(3)C___(4)D___(5)F___(6)Have not taken___

67. What are your average grades in Distributive Education or Office Occupations classes?

(1)A___(2)B___(3)C___(4)D___(5)F___(6)Have not taken

68. Average grades in vocational classes (Determined by the checkers)

SECTION II - FATHER
(Include real or stepfather the same as if he were your natural father in answering all questions)

69. Father's education (Check best one)

(1)_____College graduate
(2)_____Two year college or trade school or other organized school
(3)_____High School graduate
(4)_____Less than high school graduation

70. Where did your father receive his training for his major employment?

(1)_____College
(2)_____Post high school, vocational, trade or technical school
(3)_____High school vocational program
(4)_____On the job training
(5)_____Military service
(6)_____No special training
(7)_____Deceased unknown or retired

71. Who does your father work for, for his major employment?

(1)_____Owner or part owner and works for his own business
(2)_____Employee, works for someone else
(3)_____Retired, unknown, deceased

72. How many jobs does your father presently hold?

(1)_____Only one
(2)_____Two
(3)_____Three or more

HOLD IT! DID YOU ANSWER EVERY QUESTION?

73. Which of the following vocations best describes what your father's actual work is? (Check only one) (TAKE YOUR TIME!)

If you know the actual job, underline it.

(1)_____Farming or ranching (production of crops, animals, plants, etc.)
(2)_____Off farm agricultural business or job (as sales and service of agricultural animals, crops, horticulture, machinery, etc.)
(3)_____Business (sales, distribution, merchandising of goods, insurance, real estate, service station, banking and finance, etc.)
Service (dry cleaning, food service, motels, gaming, building maintenance, etc.)
(4)_____Skilled trades (mechanic, electrician, plumber, machinist, carpenter, draftsman, etc.)
Note: Usually requires special training for employment.
(5)_____Transportation(truck driver, railroad, aviation, etc.)
Construction or Mining or Utilities (highway, well drilling, power and telephone, etc. that requires a knowledge of various types of equipment.)
Note: May or may not require special training before employment.
(6)_____Technician (electronics, data processing, TV and radio repair, air conditioning and refrigeration, laboratory and health services, etc.)
Note: Special technical training beyond high school required (usually 2 years or more), but less than college graduate.
(7)_____Public service (law enforcement, military career, fireman, post office, barber, etc.)
Note: Include in this group any job, public or private, that does not require a college degree that is not included in the above questions.

QUESTIONS 8-9 ARE PROFESSIONS. THEY REQUIRE AT LEAST A COLLEGE DEGREE FOR EMPLOYMENT.

(8)_____Forester, irrigation engineer, Bureau of Land Management, Fish and Game, veterinary science, agricultural research, agricultural extension, etc.
(9)_____Teaching, medicine, law, civil engineer, accountant, research chemist, physicist, mass media communications, social or public worker, minister.
(Include any job not listed that requires a college degree)

Other: If not included, please list:_____

SECTION III - BROTHER'S EMPLOYMENT WHO IS OUT OF HIGH SCHOOL
(Fill out a separate sheet for each brother out of high school)

How many brothers do you have out of high school?_____

Brother's name_____

74. What is your brother's age?

(1)_____17 to 19 (out of high school)
(2)_____20-23
(3)_____24-27
(4)_____28 and Over
(5)_____I don't know and won't guess

75. Did your brother graduate from high school?

(1)_____Yes
(2)_____No
(3)_____I don't know

76. What is your brother doing now? (check only one)

(1)_____College
(2)_____Military Service
(3)_____Employed full-time
(4)_____Employed Part-time
(5)_____Unemployed

77. If he is employed full or part time or he is unemployed where does he live?

(1)_____At home (with parents)
(2)_____In same county but not at home
(3)_____In another county in Nev.
(4)_____In another state than Nev.

78. Where did your brother receive his training for his major employment?

(1)_____College
(2)_____Post high school, vocational, trade or technical school
(3)_____High school vocational program
(4)_____On the job training
(5)_____No special training

79. If your brother is employed full or part time which best describes your brother's principal employment? (Check only one, TAKE YOUR TIME)

If you know the actual job, underline it.

(1)_____Farming or ranching (production of crops, animals, plants, etc.)
(2)_____Off-farm agricultural business or job (as sales and service of agricultural animals, crops, horticulture, machinery, etc.)
(3)_____Business (sales, distribution, merchandising of goods, insurance, real estate, service station, banking and finance, etc.)
Service (dry cleaning, food services, motels, gaming, building maintenance, etc.)
(4)_____Skilled trades (mechanic, electrician, plumber, machinist, carpenter, draftsman, etc.)
Note: Usually requires special training for employment.

(5)_____Transportation (truck driver, railroad, aviation, etc.)
Construction or Mining or Utilities (high way, well drilling, power and telephone, etc. that require a knowledge of various types of equipment.)
Note: May or may not require special training before employment.

(6)_____Technician (electronics, data processing, TV and radio repair, air conditioning and refrigeration, laboratory and health services, etc.)
Note: Special training beyond high school required (Usually two years or more), but less than college graduate.

(7)_____Public service (law enforcement, military career, fireman, post office, barber, etc.)
Note: Include in this group any job, public or private, that does not require a college degree that is not included in the above questions.

QUESTIONS 8-9 ARE PROFESSIONS. THEY REQUIRE AT LEAST A COLLEGE DEGREE FOR EMPLOYMENT.

(8)_____Forester, irrigation engineer, Bureau of Land Management, Fish and Game, veterinary science, agricultural research, agricultural extension, etc.

(9)_____Teaching, medicine, law, civil engineer, accountant, research chemist, physicist, mass media communications, social or public worker, minister. (include any job not listed that requires a college degree in this group.)

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Other: If not included above please list:_____

_____

Completed by the Counselor or Principal

INFORMATION OBTAINED FROM EACH COOPERATING SCHOOL IN REFERENCE TO THEIR VOCATIONAL PROGRAMS

Name of School _____

Date _____

Total Number of Boys In	Number Filling Out Survey
9th Grade _____	_____
10th Grade _____	_____
11th Grade _____	_____
12th Grade _____	_____
Total _____	_____

Number of Brothers

Students with one brother _____

Two brothers _____

Three or more _____

Total _____

COUNSELING

Do you have a semester or year course taught by the counselor for the purpose of teaching students about the various occupations and the training they will require for employment?

(1) Yes_____ No_____

(2) Who teaches course (title)? _____

(3) What grades enroll? _____

Number of vocational teachers teaching mainly boys _____

Number of guidance counselors in the school _____

Number of counselors assigned as vocational counselors _____

About what per cent of the graduating class last year started college? _____

About what per cent of those starting 4 years ago graduated last spring? ___

How many credits is normally given for each one hour vocational class meeting five days a week? _____

PART II - TYPE AND NUMBER OF VOCATIONAL CLASSES TAKEN BY STUDENTS

The information below is necessary as a check against the student's papers. This is important to help us limit duplication.

Complete the following for each grade below.

(1) What is the maximum number of years any one student can complete the following courses in each grade? (No. 12 add total)

(2) What is the length of class time for each grade?

(3) For each grade, list the number of vocational courses a typical vocational student will take. (No. 13 below)

	9th		10th		11th		12th	
	No.	Time	No.	Time	No.	Time	No.	Time
(1) Vocational Agriculture	___	___	___	___	___	___	___	___

If you have counted the class in Ag. Mechanics under vocational agriculture above, don't count it again below.

(2) Auto Mechanics	___	___	___	___	___	___	___	___
(3) Carpentry or building const.	___	___	___	___	___	___	___	___
(4) Wood Work	___	___	___	___	___	___	___	___
(5) Welding, Metal work	___	___	___	___	___	___	___	___
(6) Drafting or Mech. Drawing	___	___	___	___	___	___	___	___
(7) Electrical wiring	___	___	___	___	___	___	___	___
(8) Electronics	___	___	___	___	___	___	___	___
(9) Surveying	___	___	___	___	___	___	___	___
(10) D.E. Distribution & Merch. of Goods					___	___	___	___
(11) Other vocational type courses								
_____	___	___	___	___	___	___	___	___
_____	___	___	___	___	___	___	___	___
(12) Maximum each grade	___	___	___	___	___	___	___	___
(13) Typical for each grade	___	___	___	___	___	___	___	___

END 7 31 70