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ABSTRACT

A follow-up study was conducted of the 1988 graduates of vocational-technical centers, three community colleges, and Northern Montana College. Data were gathered through a survey form mailed to 714 graduates (from a sample of 1,258), yielding 300 responses (43 percent). Approximately 33 percent of the respondents received a degree in technical studies or business, 16 percent in health, 13 percent in general studies, and 6 percent in agricultural program areas. Some of the findings of the study were as follows: (1) more than one-third of the graduates intend to pursue more education, and about half were undecided; (2) almost three-fourths of the graduates indicated that their completed coursework was good to excellent in meeting their continuing education needs; (3) 87 percent of the respondents considered their coursework to be of immediate or long-term direct benefit to their career plans; (4) graduates rated ancillary services highly, except placement services, which may have suffered by comparison because of the sluggish economy; and (5) graduates related a high level of satisfaction with the usefulness of the programs and training received for performing their present jobs. The study recommended that annual follow-up studies be conducted in order to ensure that Montana's postsecondary vocational-technical education programs continue to be relevant to student needs and the job market. An addendum supplementing this follow-up study is attached. It contains two tables which relate the employment status of the graduates and reported salary by programs completed. (KC)

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A FOLLOW-UP STUDY OF THE 1988 GRADUATES OF POST SECONDARY VOCATIONAL PROGRAMS IN MONTANA

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A.W. "Gus" Korb, Director

FOREWORD

With the implementation of the Center for Vocational Education Research, Curriculum and Personnel Development, a system was created which provided for facilitating Vocational Education in the State. Systematic and comprehensive studies can be done by one agency which should prove to be helpful for all providers of vocational education. Such studies provide data necessary for program planning and review, equipment purchasing, and program articulation.

This report is one of ten reports which were a result of a statewide follow-up of 1988 graduates of Post-Secondary vocational programs in the State. With the advice and cooperation of nine schools, a mailed survey of the graduates was conducted. The cooperating schools were the five vocational-technical centers at Billings, Butte, Great Falls, Helena, and Missoula, the three community colleges: Dawson at Glendive, Flathead Valley at Kalispell and Miles at Miles City, and Northern Montana College. A summary report was written showing the findings for each of the nine schools along with a composite report summarizing the statewide findings.

The Center would like to express its appreciation to all those who cooperated in the study.

A. W. "Gus" Korb, Director

A Follow-up Study of the 1988 Graduates
of Post-Secondary Vocational Programs in Montana

Introduction

Because of the technological and social changes in the last two decades, significant changes have occurred in the way our citizens prepare and maintain successful career paths. With a growing demand for trained, qualified people in the workforce, an increased emphasis is placed on vocational-technical education centers to provide quality classroom instruction linked to jobs in the labor market.

Consequently, the long-range planning goals of vocational-technical programs in Montana must meet the immediate needs of the students and the demands of the employers. One way to determine if these needs are being met by the vocational education programs in the state is to contact recent graduates of the programs and query them to determine what they experienced as they entered the labor market.

Such follow-up studies measure the success of vocational education in two ways: first, by keeping track of former students' job placement and determining their employment success, and second, by determining employers' perceptions of the effectiveness of their employees' vocational education.

One of the most important reasons to conduct vocational follow-up studies is to determine the vocational programs' effectiveness in fulfilling their purpose of preparing individuals for employment. Data results show that vocational graduates who are successfully employed in their areas of preparation provide a foundation for accountability. Hence, when a school board member, taxpayer, legislator, school principal or other person questions the costs of improvements in vocational programs, the vocational educator should be able to document a reply with follow-up study data.

Vocational instructors, local school personnel and students in vocational programs can also benefit from study results. Instructors can use follow-up data to update and modify existing curricula. Local school administrators find follow-up data helpful in making program modifications, including deciding when to initiate, expand, change or delete programs. And, former students' feedback on how they have used the skills obtained through vocational training enables school personnel to make classroom experience more relevant to the work world and, consequently, more valuable to current and future students.

In addition, conducting vocational follow-up studies is a means of meeting the mandate for evaluation information set forth by the 1984 Carl D. Perkins Vocational Education Act.

The Montana Center for Vocational Education Research, Curriculum and Personnel Development recognized the need for a such a state-wide follow-up survey of all graduates of post-secondary vocational programs, and subsequently conducted a follow-up survey during the spring of 1989. The study provides data relative to all post-secondary schools which may be helpful for programmatic changes in individual schools. Working cooperatively with the five vocational-technical centers, three community colleges and Northern Montana College, the graduate follow-up survey was planned, developed, and conducted.

Purpose

The study was designed to gather data from the 1988 graduates of the post-secondary vocational-technical programs in Montana. The information generated was to provide insight into how graduates selected the schools and their level of satisfaction with training and student services provided while they were in school. Graduates were also asked to provide information relative to their present employment and their plans for the future.

The collected data should assist program planners while monitoring programs for their relevance to today's employer demands. These data will provide for the restructuring of specific curricula/programs; improve career guidance for students; and generally improve the vocational-technical programs to address student needs and labor market demands in Montana.

Population and Methodology

A planning meeting was held with Center staff members and representatives from each of the participating schools:

Billings Vocational-Technical Center	Billings, Montana
Butte Vocational-Technical Center	Butte, Montana
Great Falls Vocational-Technical Center	Great Falls, Montana
Helena Vocational-Technical Center	Helena, Montana
Missoula Vocational-Technical Center	Missoula, Montana
Dawson Community College	Glendive, Montana
Miles Community College	Miles City, Montana
Flathead Valley Community College	Kalispell, Montana
Northern Montana College	Havre, Montana

During the meeting, survey instruments were reviewed and other strategies were discussed. The meeting culminated in a final design of the study questionnaire.

The finalized instrument was field-tested by mailing it to three graduates from each of the nine participating schools and asking them to respond to the questions and provide comments relative to the design of the survey. With only minor changes, the instrument was revised and distributed to the sample population.

The population of the study consisted of all the graduates of the post-secondary Vocational-Technical programs in the 1987-88 school year in Montana. The names and addresses of 1258 graduates were supplied to the Center by the nine participating schools.

The sample consisted of 100% of the Community College graduates and 50% of the graduates of the five vocational-technical centers and Northern Montana College. A table of random numbers was used in selecting the sample from the vocational-technical centers and Northern Montana College. However, due to the smaller number of vocational program graduates from the community colleges, all their graduates were included in the sample.

The process provided 170 names from the community colleges and 544 names from the remainder of the schools for a total sample of 714 graduates.

A complete survey packet consisting of cover letter, directions, survey instrument, and a pre-addressed, stamped envelope for return of the instrument was sent to each graduate (see Appendix). The cover letter contained an explanation of the purpose of the survey, a brief description of the survey instrument, and an assurance of confidentiality.

After a two-week period, a follow-up postcard was sent to non-respondents. This was followed by a second questionnaire for those who had not responded after a three-week period. A total of 300 surveys were returned from these mailings for an overall response of 43 percent.

This report summarizes the findings of the study for all nine schools. It is a composite report and does not single out individual schools. A separate report has been written for each individual school.

Results

Table I shows the responses to the survey by school. Of the 714 surveys mailed, 300 were returned for a 43% response. Graduates of Flathead Valley Community College had the highest response with a 55% return, and Great Falls Vo-Tech had the lowest with a 22% return.

Table I
Summary of Samples and Returns By School

School	No. Sent	No. Returned	Percentage
Flathead Valley Community College	54	30	55%
Dawson Community College	52	27	52%
Billings Vo-Tech Center	90	43	48%
Miles Community College	64	31	48%
Northern Montana College	80	34	42%
Butte Vo-Tech Center	65	32	49%
Great Falls Vo-Tech Center	89	20	22%
Helena Vo-Tech Center	122	42	34%
Missoula Vo-Tech Center	98	41	42%
	<u>714</u>	<u>300</u>	Avg. <u>43%</u>

To provide a basis for analyzing the data, the graduates were asked to list the program, certificate or degree they had recently completed. Seven hundred and fourteen graduates were surveyed and 300 responded for a 43% average return. Table II depicts the number of graduates and percentage responding by program. Approximately 33% received a degree or certificate in technical studies or business, 16% in health, 13% in general studies and 6% in agriculture program areas.

Table II
Respondents by Program

Program, Degree, Certificate Area	No. of Respondents	Approx. Percentage
<u>GENERAL STUDIES:</u>		
General Degree	20	7%
Law Enforcement	7	2%
Human Services	8	3%
Associate of Applied Science	3	1%
<u>HEALTH CARE:</u>		
RN Nursing	10	3%
LPN Nursing	32	11%
Nanny Child Care/Home Health Nurse	2	1%
Respiratory Therapist	2	1%
Dental Assistant	1	.5%
<u>AGRICULTURE:</u>		
Agri-Mechanics	9	3%
Agri-Business	5	2%
Forestry	4	1%
<u>BUSINESS:</u>		
Business Administration	14	5%
Secretarial	12	4%
Legal Secretary	14	5%
Mid-Management	2	1%
Data Processing	13	4%
Business Management	10	3%
Word Processing	9	3%
Business Education	1	.5%
Accounting/Bookkeeping	13	4%
Business Technology	3	1%
Sales and Distribution	1	.5%
Medical Secretary	5	2%
Computer Programming Operator	3	1%
<u>TECHNICAL STUDIES:</u>		
Surveying	5	2%
Automotive Technology	3	1%
Automotive Mechanics	14	5%
Electronics Technology	13	4%
Power Plant Technology	1	.5%
Diesel Mechanics	6	2%
Auto Body	3	1%
Air Conditioning/Refrigeration	7	2%
Welding Technology	8	3%

Drafting	4	1%
Mechanics Assistant	1	.5%
Appliance Technician	1	.5%
Construction Technology	1	.5%
Small Engine Repair	4	1%
Machine Tool Operation	1	.5%
Civil Engineering Technology	3	1%
Dinner Cook/Food Management	3	1%
Pressure Boiler Operations	8	3%
Aviation Maintenance	4	1%
Truck Driver	4	1%
Heavy Equipment Operator	3	1%
	<u>300</u>	<u>102%*</u>

Total surveyed = 714 Total returned = 300 Percentage = 43%

*Total exceeds 100% due to rounding numbers.

Students in vocational training schools are frequently in different stages of their education. Some are recent high school graduates who are preparing for a job, others are mature adults who are retraining or updating their occupational skills. Still others are uncertain about their future and may choose to continue their education in a related field or seek a bachelor's degree. In some cases, just the availability of a school in the geographic area may be the primary reason they are in school. Therefore, graduates were asked to identify their primary reason for attending school. Table III summarizes the findings.

Approximately one-fifth (18%) of the graduates chose a school because of its location, while over half (52%) chose the school for job preparation, and 14% for job skills.

Table III
Primary Reason for Attending Vocational-Technical School

Reason	No. Responses	Percentage
Improvement of existing "job skills"	40	14%
Preparation for "job to be obtained"	156	52%
Transfer credit for further education	6	2%
School location	52	18%
Program choices	3	1%
Other	0	0%
No response	39	13
	<u>300</u>	<u>100%</u>

Since vocational-technical education programs are usually at less than baccalaureate degree level, and because there is a major emphasis in recent years for acquiring more math, science and other related skills, many graduates find it necessary and/or appealing to further their educational goals to insure employment success. The respondents were asked if they planned on pursuing more education and, if so, what type of program/school they would anticipate attending. Tables IV and V summarize the findings.

Over one-third (36%) of the graduates reported that they intended to pursue more education, while almost half (47%) were still undecided about future educational pursuits.

Also, almost half (41%) of the respondents (Table V) indicated that they plan to attend a four-year college to further their education. This percentage is probably made up of both decided and undecided graduates from Table IV. Thirty-five percent did not respond to this question, a probable indication that they were undecided about future educational plans.

Table IV
Plans for Additional Education

Response	Total	Percentage
Yes	110	36%
No	47	16%
Undecided	140	47%
No response	3	1%
	<u>300</u>	<u>100%</u>

Table V
Choice of School for Additional Education

Type of School	Total	Percentage
Vocational-technical school	47	16%
Community college	24	8%
Four-year college	124	41%
No response	105	35%
	<u>300</u>	<u>100%</u>

Because one and two-year vocational programs may, in some cases, be used as prerequisites for specific post-secondary degree programs, or in other instances, the vocational program provides a sampling of the academic rigor of a four-year degree; many graduates seek to continue their education after vocational-technical training.

Therefore, graduates were asked to assess the adequacy of the training program they completed as to how it helped them meet the demands that may be expected of them in an advanced program. Table VI summarizes the graduates' responses.

Almost three-fourths (70%) of the graduates indicated that their completed coursework was good to excellent in meeting their continuing education needs. Fifteen percent reported that coursework was fair at meeting their educational needs, and 11% said their coursework did not apply to continuing educational goals.

Table VI
**Adequacy of Completed Courses
for Meeting Continuing Education Needs**

Rating	No. Responses	Percentage
Excellent	72	24%
Good	136	46%
Fair	45	15%
Poor	7	2%
Doesn't Apply	33	11%
No Response	7	2%
	<u>300</u>	<u>100%</u>

In addition to determining if completed coursework was relevant to continuing education, graduates were asked to rate how their completed courses prepared them in terms of career plans. Since the primary purpose of vocational education is to prepare individuals for employment, this question is integral in conducting follow-up studies. Table VII shows that 87% of the respondents considered their coursework to be of immediate or long-term direct benefit to their career plans, while 9% reported their training as having indirect benefit to their career plans. Only 1% of the total graduates responded that their courses were of no benefit in terms of their career plans.

Table VII
Ratings of Completed Courses for Future Career Plans

Rating	No. Responses	Percentage
Of immediate, direct benefit	131	44%
Of long term, direct benefit	130	43%
Of indirect benefit	28	9%
Of no benefit	2	1%
No response	9	3%
	<u>300</u>	<u>100%</u>

Studies have shown that academic success is directly related to the quality and quantity of support services provided by an institution. Therefore, the quality of each school's student services must be maintained and school personnel should periodically ascertain the level of satisfaction students have for each service area.

Tables VIII through XIV report how well the graduates considered student services, (such as guidance, placement, counseling, etc.), had served their needs while in school.

In Table VIII, over half (53%) of the respondents rated their school's financial aid services as good to excellent. Twenty-nine percent did not respond to this question, which could mean that they did not use financial aid services. Ratings of fair to poor were given by 10% and 8%, respectively.

Table VIII
Ratings of Financial Aid Services
According to Needs Fulfillment

Rating	No. Responses	Percentage
Excellent	101	34%
Good	57	19%
Fair	30	10%
Poor	23	8%
No response*	29	29%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize financial aid services.

Almost half (41%) of the respondents rated their school's counseling services as good to excellent, while 8% rated counseling services as poor, as shown in Table IX. Twenty-nine percent did not respond to this question, probably indicating that they did not use any of counseling services while attending school.

Table IX
Ratings of Counseling Services
According to Needs Fulfillment

Rating	No. Responses	Percentage
Excellent	46	15%
Good	77	26%
Fair	65	22%
Poor	25	8%
No response*	87	29%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize counseling services.

Responses to satisfaction with the state's vocational-technical schools' placement services were varied as depicted in Table A. Over one-third (34%) rated them good to excellent. Almost one-third of the graduates (29%) did not respond to this question, again, probably indicating that they had not utilized placement services during their job hunt. Thirty-seven percent of the graduates rated the school's placement services as fair to poor. This lower rating may be an indication that the graduates were not able to secure employment because of the sluggish economy and consequently felt that the placement services had been inadequate.

Table X
Ratings of Placement Services
According to Needs Fulfillment

Rating	No. Responses	Percentage
Excellent	35	12%
Good	67	22%
Fair	51	17%
Poor	59	20%
No response*	88	29%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize placement services.

Over half of the respondents rated their school's course advisement services at higher levels. Fifty-one percent of the graduates indicated that services were good to excellent; 20% did not respond and probably did not use course advisement services. Only 9% of the graduates rated course advisement services as poor. (Table XI)

Table XI
Ratings of Course Advisement Services
According to Needs Fulfillment

Rating	No. Response	Percentage
Excellent	51	17%
Good	101	34%
Fair	59	20%
Poor	29	9%
No response*	60	20%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize course advisement services.

Overall, satisfaction with student activities were rated at lower levels by all schools' respondents. While graduates were not asked to identify the reasons why they had indicated low levels of satisfaction with any of the student service areas, it may be assumed that the variety of student activities were not large enough to accommodate the diverse interests of the entire student body. Less than one-third (31%) of the graduates rated student activities as good to excellent; while 36% rated them as fair to poor. As shown on Table XII, one-third (33%) of the graduates did not respond to this question, which may indicate that they may not have participated in student activities because of age, family, and/or job limitations.

Table XII
Ratings of Student Activities
According to Needs Fulfillment

Rating	No. Responses	Percentage
Excellent	25	8%
Good	70	23%
Fair	60	20%
Poor	47	16%
No response*	98	33%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not participate in student activities.

Library services were ranked good to excellent by over half (59%) of the respondents. Only 21% of the graduates ranked library services in their schools as fair to poor; while one-fifth (20%) did not respond to this question. (Table XII)

Table XIII
Ratings of Library Services
According to Needs Fulfillment

Rating	No. Response	Percentage
Excellent	78	26%
Good	100	33%
Fair	43	14%
Poor	20	7%
No response*	59	20%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize library services.

A fairly high level of satisfaction (Table XIV) was indicated by 57% of the respondents to their rating of their school's learning labs and tutoring services. Only 5% rated these services as poor, and 26% did not respond.

Table XIV
Ratings of Learning Labs/Tutoring Services
According to Needs Fulfillment

Rating	No. Responses	Percentage
Excellent	73	24%
Good	98	33%
Fair	35	12%
Poor	15	5%
No response*	79	26%
	<u>300</u>	<u>100%</u>

*A "no response" may indicate that graduates did not utilize learning labs/tutoring services.

The survey asked graduates to rate their level of satisfaction as to how their academic preparation related to their field of work, i.e. how their vocational training had contributed to their job-entry preparation and to what extent the courses assisted them.

Earlier in the survey (Table VII), 87% of the graduates responded that they felt their coursework was relevant to their career plans. In Table XV, almost three-fourths (73%) of the graduates reported high levels of satisfaction toward how their coursework had prepared them for their "field of work"; re-emphasizing the graduates' overall satisfaction with their coursework as applied to their future work plans.

Table XV
Ratings of Completed Courses
for "Field of Work" Preparedness

Rating	No. Responses	Percentage
Excellent	80	27%
Good	140	46%
Fair	44	15%
Poor	6	2%
Doesn't apply	22	7%
No response	8	3%
	<u>300</u>	<u>100%</u>

Respondents were asked to indicate how their present occupation was related to their completed coursework. Because vocational training is directly linked to the labor market, this data can be used to show to what extent former vocational students are successfully employed in their areas of preparation to provide a foundation for accountability. Table XVI shows the graduates' responses.

Over half (66%) of the respondents indicated that their completed coursework and present occupation were related. Seventeen percent stated that their occupation was not related to completed coursework; and 16% responded that they were not employed at the time of the survey.

Table XVI
Relationship Between Present Occupation
and Completed Courses

Relationship	No. Responses	Percentage
Directly related	135	45%
Closely related	64	21%
Not related	51	17%
Not employed	47	16%
No response	3	1%
	<u>300</u>	<u>100%</u>

In order to study the effectiveness of the school's programs and training, the respondents were asked to rate the usefulness of the programs and training received in performing their jobs, as shown in Table XVII.

A high level of satisfaction (70%) was reported. Fifteen percent rated their programs and training as fair to poor in appropriateness, while 13% reported that their training did not apply to their job performance. These lower levels of satisfaction may be from graduates who were working in unrelated job fields.

Table XVII
Program and Training Usefulness Ratings
In Relation to Job Performance

Rating	No. Response	Percentage
Excellent	84	28%
Good	126	42%
Fair	40	13%
Poor	6	2%
Doesn't apply	38	13%
No response	6	2%
	<u>300</u>	<u>100%</u>

Most graduates of vocational and academic programs experience varying levels of success in securing employment immediately after graduation. The job market may be a limiting factor; graduates may be placebound due to family responsibilities; they may be seeking additional education; or they may limit their job search to a specific geographic area. Since this survey was conducted approximately ten months after graduation, it was expected that the employment status of respondents would be varied.

Table XVIII supports this thesis when they were asked to report their employment status. Fifty-six percent of the graduates were employed full time; 21% were employed part-time and 7% were still unemployed, but were seeking employment. It may be assumed that the graduates who were employed only part-time or who were not employed may be placebound and cannot move to another geographic area to secure work.

Multiple responses were found to this question. Some graduates may have indicated that they were either employed full- or part-time and continuing their education; while others may have replied that they were continuing their education and were unavailable for employment. This resulted in fifteen multiple responses, resulting in a total of 315 rather than 300.

Table XVIII
Graduates' Present Employment Status Summary

Status	No. Responses	Percentage
Employed, full-time	168	56%
Employed, part-time	63	21%
Unemployed, seeking employment	23	7%
Military	0	0%
Continuing education	29	9%
Unavailable for employment	29	9%
No response	3	1%
	315*	103%*

*Multiple responses by graduates may indicate they were both employed and continuing their education; unemployed and continuing their education, or other alternative choices.

Many people find it necessary to enroll in vocational programs to secure additional training or retraining in specific areas. Therefore, in addition to determining the current employment status of vocational graduates, the survey asked if graduates had been employed in their occupational area prior to enrolling in their program/courses.

The data in Table XIX show 21% of the graduates were previously employed in their specific occupational area prior to enrollment. This would indicate that the balance of the graduates had been in school to learn new skills and/or were retraining themselves in different occupational areas.

Table XIX
Previously Employed in Occupational Area
Prior to Enrollment

Response	No. Responses	Percentage
Yes	63	21%
No	226	75%
No response	11	4%
	300	100%

The survey sought data related to wage earning. Those who were employed full-time were asked to report their hourly or yearly gross salary. Table XX reports this data in \$5,000 yearly increments.

Of those responding, 13% reported they earned between \$16,000 and \$20,999 per year, and 16% earned between \$6,000 and \$10,999 annually. Approximately one-third (31%) were earning between \$11,000 and \$15,999 per year. Eight percent of the graduates reported they earned more than \$21,000 per year. Since this data refers only to those working full time, the 95 "no response" answers includes both graduates who were working part-time and those who were still seeking employment.

Table XX
Full-time Employee's Yearly Gross Salary Summary

Yearly Gross Salary	No. Responses	Percentage
\$6,000-\$10,999	47	16%
\$11,000-\$15,999	92	31%
\$16,000-\$20,999	41	13%
\$21,000-\$25,999	8	2%
More than \$26,000	17	6%
No response	95	32%
	300	100%

Information regarding the availability of jobs in the graduates' area is helpful to ascertain whether vocational training is meeting the demands of the labor market. Therefore, the survey asked respondents to rate the availability of jobs in their area.

This survey question may have been slightly misleading for some graduates who chose to define "area" as geographic rather than occupational. Table XXI summarizes the graduates' responses. Less than one-fourth (24%) of the graduates reported that they felt the availability of jobs in their areas was good to excellent. Seventy-two percent reported that job availability in their area was fair to poor. Overall, however, the responses may reflect the lack of job opportunities available because of a poor economy.

Table XXI
Job Availability Rating

Rating	No. Response	Percentage
Excellent	27	9%
Good	46	15%
Fair	93	31%
Poor	122	41%
No Response	12	4%
	<u>300</u>	<u>100%</u>

To ascertain the overall effectiveness of vocational training in relationship to successful employment, it is necessary to determine whether graduates are satisfied with their present employment. The responses to this question are shown on Table XXII.

Over half (62%) of the graduates responded that they were indeed satisfied with their present employment, while 21% indicated they were not. This large negative response may be an indication that they were employed only part-time or were not employed in a job area directly related to their training.

Table XXII
Present Employment Satisfaction

Response	No. Responses	Percentage
Yes	186	62%
No	62	21%
No response	52	17%
	<u>300</u>	<u>100%</u>

Summary and Recommendations

This was the first year that a comprehensive statewide graduate follow-up study was developed and implemented for vocational schools and colleges by the Center for Vocational Education. It is recommended that annual studies be conducted in the future to help identify trends

in vocational education as well as to review and revise current information as deemed necessary by a planning committee.

While this specific information can be helpful to each school's faculty and administrators, a comparison analysis between the individual results and this composite state-wide results may also provide additional information relative to each school as it compares to the cumulative results from the state's vocational-technical schools.

Two- or three-year follow-up studies should be considered to further investigate graduates' employment status, training, educational needs, and perceptions of their completed coursework as it relates to their jobs.

The Center suggests cooperative joint planning by school staff to address specific needs or problem areas as identified by survey results. These group efforts may successfully identify strategies to overcome specific weaknesses and perpetuate strengths for schools that share common problems.

In addition, schools should make provisions for updating curriculum by reviewing current state and national business and industry literature. Data from the Montana State Department of Labor, the Montana Vocational Association, the State Occupational Information Coordinating Committee, and others, can provide relevant information on the state's supply and demand needs to assist in curriculum change.

DK2/2

A P P E N D I X

April 14, 1989

Hello 1988 Graduate!

(Name of School) is conducting a Student Follow-up Survey about you! As a 1988 graduate from our school, we would appreciate your input by taking a few moments to complete the enclosed questionnaire.

The purpose of the survey is to collect data from the 1988 graduates from our school and to utilize this data to improve, change and further support our vocational programs. You are the most important source of information about our school and we need your help!

Our Student Follow-up survey is being conducted in combined effort with the Center for Vocational Education located at Northern Montana College, where the surveys are being compiled.

Please complete the questionnaire and return it by April 28, 1989, in the enclosed pre-addressed, stamped envelope. All information will be kept confidential and will certainly contribute to the success of the survey. Any comment, suggestions or questions are welcome.

Thank you for your help. On behalf of (school name), we extend to you our best wishes for a successful 1989.

Sincerely,

The above letter, which was on the appropriate letterhead and signed by a representative from the school, was sent to each of the graduates. The school's representatives are listed below.

Cheryl Larson
Jolene Myers
Bonnie Whitehouse
Toni Herzog
Glenda Elser
Elizabeth Porch
B. Diane Murray
Pat Kercher
Dennis Lerum

Northern Montana College
Dawson Community College
Flathead Valley Community College
Miles Community College
Helena Vocational Technical Center
Billings Vocational Technical Center
Butte Vocational Technical Center
Great Falls Vocational Technical Center
Missoula Vocational Technical Center

MONTEANA POST-SECONDARY VOCATIONAL-TECHNICAL
1988 GRADUATE FOLLOW-UP STUDY

Please give your current name (and any other names used) and address.

1. Name _____
Last First Middle

2. Address: _____
Street/Box # City/State/Zip Code

3. Program, Certificate or Degree Completed: _____

Please Check () or Fill-in Appropriate Blanks(s)

1. What was your primary reason for attending our school?

- ____ a. improvement of existing "job skills"
____ b. preparation for "job to be obtained"
____ c. transfer credit for further education
____ d. school location
____ e. program choices
____ f. other (describe) _____

2. Do you plan to pursue more education?

____ yes ____ no ____ maybe

If yes, where?

- ____ vocational-technical school
____ community college
____ four-year college
____ graduate school
____ other _____

3. How well did the courses you completed prepare you for continuing your education?

- ____ a. excellent
____ b. good
____ c. fair
____ d. poor
____ e. doesn't apply

4. How do you see the courses completed at our school in terms of your career plans?

- ____ a. of immediate, direct benefit
____ b. of long term, direct benefit
____ c. of indirect benefit
____ d. of no benefit

5. Please rate (by number) each of our school's services you have utilized, according to fulfillment of your needs. (1=excellent, 2=good, 3=fair, 4=poor)

- ____ financial aid
____ counseling
____ placement
____ course advisement
____ student activities
____ library
____ learning labs/tutoring

6. How well did the courses you completed prepare you for your "field of work"?

- ____ a. excellent
____ b. good
____ c. fair
____ d. poor
____ e. doesn't apply
____ f. quality of instruction

7. Is your present occupation related to courses completed at school?

- ____ a. yes, directly related
____ b. yes, closely related
____ c. no, not related
____ d. not employed

8. How would you rate the programs and training received at our school in relation to usefulness when performing your job?

- ____ a. excellent
____ b. good
____ c. fair
____ d. poor
____ e. doesn't apply

9. Which one of the below best describes your present status?

- ____ a. employed, full time
____ b. employed, part-time
____ c. unemployed, seeking employment
____ d. military
____ e. continuing education
____ f. unavailable for employment

10. Were you employed in this occupational area prior to enrolling in courses completed?

____ a. yes ____ b. no

11. If you are employed, please complete the following:

____ Job Title

Brief job description:

____ Employer Name

____ Employer address/city/state/zip code

12. If you are employed full-time please indicate your hourly and/or yearly gross salary. (will be kept strictly confidential)

- a. hourly \$ _____
b. yearly \$ _____

13. How would you rate the availability of jobs in your area?

- ____ a. excellent
____ b. good
____ c. fair
____ d. poor

14. Are you satisfied with your present employment?

____ yes ____ no

THANK YOU FOR YOUR PROMPT RESPONSE

Comments On Any Of The Questions Are Welcomed

Postcard Reminder

April 28, 1989

Dear Graduate:

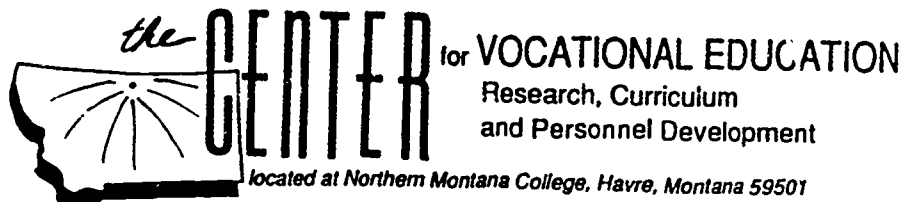
This is a reminder to let you know that we have not received your response to the Graduate Survey which was mailed to you on April 14. In general, the response to the survey has been great; however, it is very important to our study that we have a return from all graduates. Therefore, we would appreciate receiving your response in the next day or two so we can begin to tabulate the findings.

We hope your year is going well and look forward to hearing from you.

Sincerely,



A.W. "Gus" Korb, Director
Center for Vocational Education



A.W. "Gus" Korb, Director

Box 7751 • (406)265-3738

May 16, 1989

Dear Graduate,

You have recently received a follow-up survey sent to you by (school representative) from (school name). The Center for Vocational Education, located in Havre, is assisting with the survey by compiling the data. Our records show that we have not received your response. Consequently, we are mailing another questionnaire to you in case you have misplaced the first copy. Please take a few minutes to complete the form and return it to us in the enclosed pre-addressed, stamped envelope within the next three days.

The future of vocational education depends upon the past and present students like you, who are involved in their chosen vocation. Your input is valid and important to be able to improve the educational standards set forth by your school.

All information will be treated confidentially and will be very much appreciated.

Thank you and have a great Centennial Year, 1989!

Sincerely,

A.W. "Gus" Korb, Director

mel/fup

Enclosure

28

A D D E N D U M

To the Report of the
Follow-up Study of
1988 Graduates of Post Secondary
Vocational Programs in Montana

Center for Vocational Education
Research, Curriculum and Personnel Development
Located at Northern Montana College
Havre, Montana

A. W. "Gus" Korb, Director

This addendum supplements the follow-up study which the Center conducted during the spring of 1989. After analyzing the information, there was interest expressed for reporting some of the information as it applies to specific jobs.

The two attached tables relate the employment status of the graduates and reported salary by programs completed. This material provides a more detailed analysis of the data reported in Tables XVI, XVIII and XX of the original report.

A. W. "Gus" Korb, Director

Table XXIII

A Summary by Program of Employment Status
and of Annual Income Related to Degree/Certificate Earned by
1988 Graduates of Postsecondary Vocational Programs in Montana

DEGREE/CERTIFICATE	EMPLOYMENT STATUS			OCCUPATION RELATED TO DEGREE/CERTIFICATE		CONTINUING EDUCATION
	Full Time	Part Time	Unemployed	Yes	No	Cont. Education
<u>GENERAL STUDIES (N=38)</u>						
General Degree	6	7	7	5	6	7
Law Enforcement	2	3	2*	2	3	1
Human Services	1	4	3	4	1	3
Associate of Applied Science	2	1		2		
<u>HEALTH CARE (N=47)</u>						
RN Nursing	9	1			10	
Licensed Practical Nursing	14	13	4*	24	3	2
Nanny Care/Home Health		1	1	1		
Respiratory Therapist	2			2		
Dental Assistant	1			1		
Surgical Technician	1			1		
<u>AGRICULTURE (N=18)</u>						
Agri-Mechanics	6	1	1	6	1	2
Agri-Business	5	1		5	1	
Forestry		3	1	2	1	1

*one person unavailable for employment

Table XXIII

A Summary by Program of Employment Status
and of Annual Income Related to Degree/Certificate Earned by
1988 Graduates of Postsecondary Vocational Programs in Montana
 (Continued)

DEGREE/CERTIFICATE	EMPLOYMENT STATUS			OCCUPATION RELATED TO DEGREE/CERTIFICATE		CONTINUING EDUCATION
	Full Time	Part Time	Unemployed	Yes	No	Cont. Education
<u>BUSINESS (N=100)</u>						
Business Administration	5	3	6*	7	1	6
Secretarial	6	4	1	10		
Legal Secretary	11	1	2**	10	2	
Mid-Management	1		1	1		
Data Processing	7	3	4*	4	6	2
Business Management	5	2	3*	7		
Word Processing	5	2	2	7		1
Business Education		1		1		
Accounting/Bookkeeping	8		5**	6	2	1
Business Technology	2		1	2		
Sales and Distribution	1			1		
Medical Secretary	4	1		4	1	
Computer Program Operator	2		1	2		
<u>TECHNICAL STUDIES (N=97)</u>						
Surveying	1		3	1		2
Auto Tech	1	1	1		2	2
Auto Mech	8	4	2	9	1	1
Electronics Tech	6	3	4	7	2	1
Power Plant Tech	1				1	
Diesel Mech	6				5	1
Auto Body	2	1		1	1	

*one person unavailable for employment

**two people unavailable for employment

Table XXIII

A Summary by Program of Employment Status
and of Annual Income Related to Degree/Certificate Earned by
1988 Graduates of Postsecondary Vocational Programs in Montana
 (Continued)

DEGREE/CERTIFICATE	EMPLOYMENT STATUS			OCCUPATION RELATED TO DEGREE/CERTIFICATE		CONTINUING EDUCATION
	Full Time	Part Time	Unemployed	Yes	No	Cont. Education
<u>TECHNICAL EDUCATION (cont.)</u>						
Air Conditioning	3	1	3	4		1
Welding Tech	5	1	2	6		1
Drafting Tech	2		2*	1	1	
Mechanics Asst.	2				2	
Appliance Tech	1			1		
Construction Tech		1			1	
Small Engine Repair	3	1		4		
Machine Tool Operator	1			1		
Civil Engineer Tech	2		1	2		1
Dinner Cook/Food Management	2	1		2		
Pressure Boiler Operator	8			7	1	
Aviation Maintenance	4			4		
Truck Driver	3		1*	3		
Heavy Equipment Operator	2	1		2	1	

TOTAL RESPONDENTS 300

*one person unavailable for employment

Table XXIV

**A Summary of Annual Income
Related to Degree/Certificate Earned by
1988 Graduates of Post Secondary Programs in Montana****

Degree or Certificate*	Yearly Income based on full time work (2080 hours)		
	LOW	AVERAGE	HIGH
GENERAL STUDIES:			
General degree	\$ 6,900	\$16,830	\$30,118
Law Enforcement	\$10,400	\$14,576	\$17,580
Human Services	\$ 9,360	\$12,929	\$16,000
Asso. of Applied Science	\$10,400	\$12,927	\$15,454
HEALTH CARE:			
RN Nursing	\$17,900	\$22,800	\$36,000
LPN Nursing	\$ 8,320	\$15,107	\$18,740
Home Health Aid	\$11,918	\$12,916	\$13,915
Respiratory Therapist	\$18,137	\$23,068	\$28,000
Dental Assistant	\$10,400	\$10,400	\$10,400
AGRICULTURE:			
Agri-Mechanics	\$ 5,200	\$12,675	\$19,000
Agri-Business	\$11,440	\$20,655	\$38,039
Forestry	\$10,440	\$13,104	\$14,019
BUSINESS:			
Business Administration	\$ 9,000	\$14,855	\$22,000
Secretarial	\$ 8,320	\$12,020	\$14,500
Legal Secretary	\$ 7,800	\$11,635	\$14,872
Mid-Management	\$11,000	\$11,000	\$11,000
Data Processing	\$ 7,100	\$11,420	\$20,000
Business Management	---	---	---
Word Processing	\$ 8,008	\$10,696	\$14,536
Business Education	---	---	---
Accounting/Bookkeeping	\$10,920	\$13,142	\$18,000
Business Technology	---	---	---
Sales and Distribution	\$15,600	\$15,600	\$15,600
Medical Secretary	\$ 8,320	\$11,266	\$13,000
Computer Programming	\$13,520	\$16,100	\$18,720
TECHNICAL STUDIES:			
Surveying	---	---	---
Automotive Technology	\$22,000	\$22,000	\$22,000
Automotive Mechanics	\$ 7,800	\$13,724	\$30,000
Electronics Technology	\$12,400	\$15,775	\$27,000

* As identified by respondents

** See Table XXIII for number of respondents

Table XXIV

A Summary of Annual Income
Related to Degree/Certificate Earned by
1988 Graduates of Post Secondary Programs in Montana**
(Continued)

Yearly Income based on full time work
(2080 hours)

Degree or Certificate*	LOW	AVERAGE	HIGH
TECHNICAL STUDIES CONT.			
Power Plant Technology	\$43,000	\$43,000	\$43,000
Diesel Mechanics	\$13,000	\$13,803	\$14,560
Auto Body	\$ 8,000	\$ 9,200	\$10,400
Air Conditioning/Refr	\$15,840	\$15,920	\$16,000
Welding Technology	\$12,480	\$14,946	\$20,800
Drafting	\$10,350	\$14,015	\$17,680
Mechanics Assistant	---	---	---
Appliance Technician	---	---	---
Construction Technology	---	---	---
Small Engine Repair	\$19,400	\$21,650	\$23,900
Machine Tool Operation	\$12,480	\$13,000	\$13,520
Civil Engineering Tech	\$14,040	\$14,040	\$14,040
Dinner Cook/Food Mgmt	\$12,480	\$12,480	\$12,480
Pressure Boiler Operator	\$10,400	\$15,575	\$26,450
Aviation Maintenance	\$12,000	\$22,000	\$28,000
Truck Driver	\$10,400	\$14,950	\$19,500
Heavy Equipment Operation	\$16,640	\$23,400	\$28,000
Surgical Technology	\$14,500	\$14,500	\$14,500

* As identified by respondents

** See Table XXIII for number of respondents