DOCUMENT RESUME

ED 118 187 JC 760 113

AUTHOR Sewell, Susan
TITLE Descriptive Cost-Benefit Studies of Selected Wisconsin VTAE Programs. Final Report.
INSTITUTION Southwest Wisconsin Vocational-Technical Inst., Fennimore.
SPONS AGENCY Wisconsin State Board of Vocational, Technical, and Adult Education, Madison.
PUB DATE Jun 74
NOTE 61p.; Project No. 19-029-151-224. Some pages may film poorly

EDRS PRICE MF-$0.83 HC-$3.50 Plus Postage
DESCRIPTORS *Cost Effectiveness; *Educational Benefits; Educational Economics; Graduate Surveys; Investment; *Job Satisfaction; Junior Colleges; *Salaries; Student Attitudes; Student Costs; *Technical Education; Technical Institutes; Vocational Education

ABSTRACT

A cost-benefit study of vocational-technical education was conducted at Southwest Wisconsin Vocational-Technical Institute in 1974. Thirty surveys were mailed to students who had graduated in May 1973 from the account clerk program or the business administration-accounting program at Southwest Tech. Thirty-one surveys were mailed to those who had applied to attend Southwest Tech during the 1973-74 school year, but did not attend. Response rates were 63 percent for the graduate survey and 41.9 percent for the nonattendant survey. The private economic benefit variable studied was income after graduation. The private economic cost variables were books and supplies, room and board, fees, transportation, and foregone earnings. The private noneconomic cost and benefit variables were satisfaction with the community, convenience, and attitudes toward education, present job, and making a decision as to a lifetime occupation. Costs are calculated and shown in tables; the average payback periods were found to be 6.97 years and 5.6 years. Since graduates have higher employment, higher earnings, and are more satisfied with their jobs and community, vocational-technical education would seem to be a worthwhile investment. The survey instruments are appended, and data are tabulated throughout the report. (Author/NHM)

FINAL REPORT

Project No. 19-029-151-224

DESCRIPTIVE COST-BENEFIT STUDIES OF SELECTED WISCONSIN VTAE PROGRAMS

Susan Sewell
Research Specialist

Daniel J. Wagner
Administrator of Research and Planning

Ronald H. Anderson
District Director

Southwest Wisconsin Vocational-Technical Institute
Fennimore, Wisconsin

June, 1974

The project was funded pursuant to a grant with the Wisconsin Board of Vocational, Technical and Adult Education, thru use of federal funds from the U.S. Office of Education and by matching funds provided by the Southwest Wisconsin Vocational-Technical Institute. The views or opinions stated in this report are those representing the professional judgment of the investigators and do not necessarily reflect the views of the participating agencies.

ACKNOWLEDGEMENTS

The information contained in this report came from a number of sources. The researcher wishes to thank all of these individuals for contributing to its successful completion.

Specific individuals at Southwest Wisconsin Vocational-Technical Institute include Daniel J. Wagner, Administrator of Research and Planning; Sally Kinder, Research secretary; Donald Marcouiller, Division Chairman of Business and Marketing Education; John Stroebel, Administrator of Student Services; Lynn Reichert, Counselor Student Services; and Helen Curtis, secretary Student Services.

Appreciation is also extended to Lawrence J. Zimprich, Manpower Specialist at the Wisconsin State Employment Service for his assistance in obtaining wage earnings data.

Also greatly acknowledged is Roland Krogstad, Vocational Education Consultant, Research, Wisconsin State Board of Vocational, Technical and Adult Education for his financial support in federal funds and for other assistance.

Finally, gratitude is expressed to the graduates of Southwest Tech and to the other respondents for completing and returning the survey to us. Without their cooperation this project would not have been possible.

TABLE OF CONTENTS

LIST OF TABLES

SUMMARY

A cost-benefit study of vocational-technical education was conducted at Southwest Wisconsin Vocational-Technical Institute from March to July, 1974.

Thirty surveys were mailed to students who had graduated in May, 1973 from the Account Clerk program and Business Administration-Accounting program at Southwest Tech. Thirty-one surveys were mailed to individuals who had applied to attend Southwest Tech during the 1973-74 school year but did not attend.

Sixty-three point three percent of the graduate surveys were returned and 41.9 percent of the non-graduate surveys were returned.

It was concluded from the findings that vocational-technical education at Southwest Wisconsin Vocational-Technical Institute is a worthwhile investment for the individual. The results showed that the graduates have higher employment, higher earnings, and are more satisfied with their jobs and their community. It was suggested, however, that further studies be conducted as generalizations can not be made from this study alone.

CHAPTER I

BACKGROUND FOR THE STUDY

A review of literature has found many studies involved with cost-benefit of vocational-technical education. The following provides a very extensive review of these studies. That which is reported here is specifically related to the private economic and noneconomic costs and benefits. The 31 studies contained in this review include different techniques of investigation, different types of schools and geographical areas, and different programs The studies are organized in chronological order from 1964 to 1973

Somers and Stromsdorfer (1964) studied the economic aspects of manpower training programs in West Virginia. They found that trainees enjoyed notable advantages in employment and earnings relative to comparable nontrainees. For the average male trainee, Somers and Stromsdorfer found that the costs of retraining were quickly repaid in increased earnings and that high capital values and rates of return followed the retraining investment both for the trainee and for society. They concluded there is evidence that the present and future benefits of manpower retraining substantially outweigh the costs.

Another study by Cvancara (1964) compared a group of 33 farm units which participated in the Minnesota farm management program in 1960, 1961, and 1962 with a matched group of 33 farm units which received farm management instruction in 1962 but not in 1960 and 1961 The farm units included in the study represented 20 communities in Minnesota. Cvancara found that farmers receiving farm management instruction for the entire three years had higher farm incomes by at least $500 over those farmers who received instruction only during the third year.

In 1965 Somers concluded that training and retraining are a sound investment both for the trainees and for society. He commented that if the social-psychological

benefits accuring from an unemployed worker's return to the active labor market are added then there is little doubt but that the benefits heavily outweigh the costs of retraining.

Eninger (1965) surveyed a nationwide sample of some 10,000 male graduates of high school trade and industrial vocational programs. Included in the sample were graduates of classes in 1953, 1958, and 1962. The study involved a comparison of vocational graduates with academic-course graduates. The salient findings of the study included the following. a) academic course graduates required, on the average, one month longer to find their first full-time job than vocational graduates; b) when equated for college education, the vocational graduates had significantly greater employment security than academic graduates (employment security was expressed as the percentage of time spent in full-time employment); c) vocational graduates had significantly greater employment stability than academic graduates (employment stability was expressed as the average duration in months of employment per job held); d) vocational graduates did not do as much moving from employer to employer; e) when graduates without college education were compared, there was no significant difference in first-job starting hourly earnings between academic and vocational graduates, f) vocational graduates working in the trades studies in high school tended to earn more than thos working in trades that differed from their high school study; and g) when graduates with no college education were compared, vocational graduates had higher earnings two and six years after graduation than academic graduates, but the academic graduates earnings after eleven years out of school were equal to the vocational graduates earnings.

The survey of findings on the economic returns to education by Innes, Jacobson, and Pellegrin (1965) included the following conclusions concerning the relationship of education and earnings: a) for males at all age levels, annual income increases as years of schooling increase; b) total lifetime income increases; c) the favorable relationship between income and educational attainment has persisted through the years even though the amount of formal schooling attained by the population has increased and d) when lifetime income is discounted or equated to return on current investment, the contribution of additional education to earnings is positive and significant

Corazzini (1966) did a study of benefits and costs of vocational education. He compared the costs of academic and vocational high schools in Worchester, Massachusetts, and compared the economic benefits to the individual and to the local community. When the private opportunity costs in the form of foregone earnings were added to the public and private costs, the ratio for males was reduced to 1 40 times as expensive as regular high school education. He found that starting salaries were only slightly higher for vocational graduates than for regular high school graduates, and he argued that this differential would likely decrease with time. Starting salaries for post-high school vocational graduates were only slightly higher than for vocational high school graduates. Corazzini concluded the report by questioning the economic value of the vocational education program

Carroll and Ihnen (1966) did a pilot study on costs and returns of technical education Costs and returns were measured by comparing earnings of a group of 45 male Gaston Technical School graduates with earnings for a group of 45 male high school graduates having similar characteristics The comparison covered a 7 year period The average total private cost per student for the two years of technical schooling amounted to $4,920. The average annual income from investment

in technical education increased from $553 in the first year after schooling to $1,036 in the fourth post-graduate year. The estimated private rate of return on investments in technical education was 22 percent, assuming that per capita real earnings would increase over time at the rate of 2 percent per annum. In addition, the technical school graduates had many advantages in fringe benefits such as a shorter work week, more paid vacation, holidays and sick leave, greater amounts of insurance benefits, and increased retirement benefits.

In 1966 Weisbrod maintained that education is an investment which produces at least as great a financial return as investment in corporate enterprise. Weisbrod also stated that the research of economists has consistently shown a favorable relationship between an individual's educational attainment, subsequent income, and prospects for employment.

Brazziel's (1966) experimental study comparing a combined instructional program of general education and technical training versus technical training alone revealed that general education in the curriculum contributed to a more rapid development of technical competencies in trainees, a higher incidence of employment and a greater amount of learning power.

Pejovich and Sullivan (1966) sought to establish a basis for evaluating the private and social costs and returns accruing from investment in rural technical schools. Data used in the calculations were supplied by graduates of the Winona (Minnesota) Area Technical School from 1960 through 1965 and by all students enrolled in 1965. Questionnaire data were supplied by 359 graduates and students. Private and social rates of return were calculated for the following instructional programs: auto mechanics, auto body repair, machine tool and die making, highway technician, welding, industrial electronics, general office clerk, stenography, and practical nursing. The investigators reported that the calculated median private rates of return on investment in the educational

programs were above or about equal to the average rates of return an individual could expect to receive from other forms of investment

Rolloff (1966) studied the records of 27 farm operators participating in farm business analysis programs in five Ohio schools to determine the economic returns accruing to the participants as a result of instruction. Economic returns were measured as ratios between 1965 program inputs (determined by hours of instruction) and outputs which were determined by change in net farm income between 1964 and 1965. Rolloff's data showed that participants in the instructional program realized an average of $53.16 net farm income for each $1 cost of the instructional program.

A cost-benefit analysis of a basic and vocational education program for disadvantaged youth in Muskegon, Michigan, showed that benefits accruing to the 187 trainees in the experimental group could amount to approximately $500,000 over the working life of the trainees (Austin and Semmerfeld, 1967).

Tweeten (1967) suggested that investment in education is highly profitable to individuals in rural poverty areas who have geographic and occupational mobility and that investment in education is likely to be only marginally profitable to those persons lacking mobility.

Individual or private benefits have been defined as the welfare gained by an individual as a result of education. Davie (1967, 1968) listed the following as individual benefits: a) additional earnings attributable to vocational-technical education net of taxes; b) fringe benefits associated with additional earnings; c) stipends received, if any, while enrolled in a vocational-technical program; d) value of the option to enter other educational programs in the future; and e) increased psychic income.

Mangum (1967) reported that his analysis of the cost-benefit studies of manpower development and training programs revealed data that are consistent enough and the margins of benefits over costs sufficiently large to leave little doubt but that the training programs have been a good economic investment.

Solie's (1968) study of training programs in two Appalachian counties in Tennessee revealed that retraining programs improved the employment experience of unemployed workers. The study yielded evidence which suggested also that at least a part of the improved employment status of trainees may have come at the expense of nontrained workers and that the benefits of retraining may be rather short-lived consisting principally of facilitating a rapid return to gainful employment of unemployed workers.

Gough and Rowe (1968) found that Manpower Development and Training Act programs for farmers and farm workers were a sound investment in education.

In 1968 Carol and Parry presented data challenging the idea that the more formal education an individual obtains the higher paying occupation he may enter and hence the greater his lifetime earnings. Calculating the present value or discounted net lifetime earnings of sixty-seven occupations from 1960 census data, they found the resulting ranking of occupations revealed that certain blue-collar occupations surpassed some of the managerial and professional occupations.

Duris and Sanders (1968) reported that in October, 1966, 96% of those persons available for employment who had completed full-time high school and post-high school programs in 1966 were employed. Of those available for employment, 80% were employed full-time in jobs for which they were trained or in a related field, 12 % were employed full-time in jobs not related to their

education, and 4% were employed part-time. Slightly over one-third of the students completing training programs were not available for employment either because they entered the armed forces, continued school full-time, were unable to work, or did not want to work.

Taussig (1968) used a cost-benefit framework for a case study of vocational education in New York City. When vocational school graduates of 1963 were compared with academic high school graduates for the same year Taussig reported that vocational school graduates had a significantly lower rate of unemployment than academic high school graduates, 10.5 percent and 17.6 percent unemployment, repectively. Taussig found that after making allowances for differences in estimation procedures and for variations in age, race, and experience, the initial earnings of vocational school graduates indicated that their skills did not command a significant premium in the labor market. Recognizing that further research may alter the conclusions reached, he concluded that the presently available research indicated that the direct market benefits from high-school vocational education in New York City were disappointing and he stated that in this study a numerical cost-benefit ratio would give false precision to the incomplete data that were available. When comparing the costs and benefits, he concluded that the evidence suggested that returns were meager relative to the considerable investment in vocational education in New York City.

Fein (1968) reported the following conclusions from Corazzini's and Taussig's research: a) both found vocational education to be relatively expensive, b) neither found significant differential wage rates in entry jobs for people with and without vocational education, c) both found major rigidities in vocational education, and d) both researchers agreed that there were statistical and conceptual problems to be resolved and that there were major gaps in the data used in each study.

Main (1968) interviewed a national probability sample of Manpower Development and Training Act Trainees and other persons who were employed about the same time the training courses started to learn whether training had any effect on income and employment during the period following training. He found among those persons who held a full-time job since the training period, that both those who had completed training and the nontrainees earned about the same weekly wages on their most recent full-time jobs. However, more persons who had completed training than nontrainees were employed when interviewed. Main concluded that the Manpower Development and Training Act programs increased employment even if better paying jobs did not result

The Advisory Council on Vocational Education (1968) concluded that studies relating the costs of vocational education to the benefits derived from vocational education have given it solid support. The Advisory Council pointed out that when controlled for differences in ability, vocational students profit substantially as compared to others in both employment and earnings.

A study by Persons, Swanson, Kittleson, and Leske (1968) assessed the returns to investments in farm business management education for adult farmers. The farm business management programs were conducted through vocational agriculture departments in the public schools of Minnesota. The study was designed to provide answers to the following questions. What benefits can accrue to farm families who choose to participate in an intensive educational program intended to improve their technical competence and management skills? What benefits accrue to the community that chooses to support such a program? What are the benefit-cost ratios of such an educational program when calculated for the individual participant and for the community? The records of farmers who had been enrolled in vocational agriculture farm business management programs since

1959 were used in the study. The criterion variables used to calculate the return to individuals and to the community were operators labor earnings, return to capital and family labor, and total farm sales. The benefit-cost ratio for individual participants over the eight-year period was 4.2. For each dollar invested in the farm business management instructional program by the farmer the return to his labor and management was $4.20.

Hu, Lee, and Stromsdorfer (1968) of Pennsylvania State University did a cost effectiveness study of vocational education. The results of this study indicate that vocational-technical graduates gained an average of $576 per year over the six-year period after graduation. The vocational-technical graduates earned $48 per month more (or $3,456 more in six years) than the non-college academic graduates, they were employed about 1.8 months more than the academic graduates, and they took 11 weeks less than academic graduates to find their first job after graduation; they had earned $737 ($67 x 11) before academic graduates started their jobs.

Kaufman (1968) did a cost-effectiveness analysis of vocational and technical education. The benefit data were based on labor market histories reported by mail questionnaires from a sample of high school graduates. By six years after graduation, vocational-technical graduates earned $3,456 more than graduates of the non-vocational-technical curricula. Similarly, over the six years vocational-technical graduates were employed 4.3 months more than graduates of the non-vocational-technical curricula. For this study sample, vocational-technical education is an economically worthwhile investment for individuals and for society. However, although this study has shown that vocational-technical education is economically worthwhile for this study sample, one can not necessarily

generalize on the basis of these results. If further studies corroborate these findings, then generalizations can be made on safer ground, but considerable refinement is still needed of both concepts and data.

During 1968 and 1969 Kraft did a cost effectiveness analysis of vocational-technical education programs in Florida. The report concerns itself mainly with benefits of education (or returns from education) which are realized directly by the student. One form of such benefits is the "financial return" accompanying additional education. A second form is the "financial option" return, previously unconsidered, which involves the value of the opportunity to obtain still further education.. Third are the nonmonetary "opportunity options", involving the broadened individual employment choices which education permits. Fourth are the opportunities for "hedging" against the vicissitudes of technological change; and fifth are the "nonmarket benefits". If one could generalize from the education-earnings profiles of the 1965, 1966, 1967, and 1968 graduates of various vocational-technical programs offered by two area vocational-technical centers, one would be forced to conclude that: a) the private rate of return on "educational investment" is astonishingly high; b) all (public) cost-utility ratios (c/u) indicate a positive rate of return. But in view of the limitations of the data, such strong conclusions must be treated with extreme caution. It should be emphasized that all cost-utility ratios provided in this report are, at best, illustrative. A far larger and more representative sample would be required before anything more decisive could be said about the magnitude of the social or private rates of return on investment in vocational-technical education.

Shriver and Bowlby (1971) did a study to analyze the differential benefits from vocational training. The study involved 1,701 former students selected at random from 19 area vocational-technical schools in Tennessee. Major objectives of the study were to determine: (1) economic justification of vocational training, (2) wage differences among the vocationally trained and nontrained, and (3) internal rates of return to area vocational-technical schools. Some of the findings included: (1) vocational training increased labor force participation, reduced unemployment, and increased occupational mobility, (2) students with the lowest educational ability received the greatest rate of return, (3) vocational training was beneficial regardless of educational attainment, and (4) total public rate of return on investments in vocational training was 6.3 percent while the private rate of return was 13.4 percent.

In 1971 Somers did a national followup study on the effectiveness of vocational and technical programs. Students who graduated from high school, post-secondary school and junior college vocational programs in 1966 were surveyed three years later to determine the effectiveness of their vocational education. It was found that the three school levels drew students of differing socio-economic backgrounds, with the entrants to junior college vocational programs coming from families with a higher socio-economic status. The school level and the sex of the graduates were found to be the most significant variables in explaining employment, wages and earnings during the three year period following graduation. Junior college graduates enjoyed a labor market advantage relative to those from post-secondary vocational schools, and these, in-turn, enjoyed an advantage over the graduates of high school vocational programs.

Kraft (1972) said it has been acknowledged that people with higher levels of education usually enjoy the benefit of higher life-time earnings. One limitation of the rate of return approach is the difficulty in estimating to what extent income is due to education alone. After all, frequently the earnings level depends on variables such as parents, education, type of occupation and finally, and quite importantly, the region in which employment is found.

Parker (1973) defined individual or private benefits as the welfare gained by an individual as a result of education. They include: a) additional earnings attributable to education, net of taxes, b) fringe benefits associated with additional earnings, c) stipends received while enrolled in an educational program, d) the value of the option to enter other educational programs in the future.

In summarizing these literature reviews, some techniques of investigation include:

1. matched groups
2. survey technique
3. comparison groups
4. record analysis
5. interview technique
6. mail questionnaire
7. random sample technique
8. follow-up studies

Types of schools and geographical areas include:

1. Junior college vocational programs
2. Post-secondary vocational-technical schools
3. Rural technical schools
4. Vocational high schools
5. Appalachian counties
6. Florida
7. Massachusetts
8. Michigan
9. Minnesota
10. New York City
11. Ohio
12. Pennsylvania
13. Tennessee
14. West Virginia

The different programs in these studies consist of the following:

1. Manpower development and training programs
2. Agricultural - farm programs
3. Trade and Industrial programs
4. Auto mechanics, auto body repair
5. Machine tool and die making
6. Highway technician
7. Welding
8. Industrial electronics
9. General office clerk, stenography
10. Practical nursing
11. Farm business
12. Disadvantaged youth programs

The literature review indicates that in some cases education yields a high rate of return to the individual and that vocational education is a worthwhile investment. Other studies have conflicting findings in that economic and social returns were not great enough and they further questioned the value of vocational education. It is suggested that more research be conducted in the area of cost-benefit of vocational education in an effort to be more consistent and to produce a valid conclusion that vocational-technical education is a worthwhile investment.

CHAPTER II

INTRODUCTION

THE PROBLEM:

Millions of dollars have been spent to plan, design, develop, conduct, implement, and evaluate vocational and technical education programs. These programs effect individuals, families, employers, society in general, and the National Defense and Welfare. Costs of various programs have been calculated and cost-effectiveness studies have been conducted. Benefits have been determined.

Regardless of who makes decisions, planning vocational, technical and adult education programs requires careful cost-effectiveness analysis. In addition to the tangible benefits which can be valued in dollar terms, perhaps just as important is a quality of life component which should be appraised in some way.

For quite some time educators have been aware of the high cost of providing vocational education. But cost is a relative term and to have a true measure it must be compared with benefit gain. Therefore, studies of cost-benefit, although not abundant, have been looked upon with favor in the vocational education field.

THE OBJECTIVES OF THE STUDY:

The overall purpose of this project is to conduct a descriptive-type cost-benefit study.

Specific objectives of this study are:

1. Identify the programs to be studied.

2. Identify the private economic and non-economic benefit and cost variables of vocational and technical education.

3. Determine the private economic benefits and costs of vocational and technical education.

4. Determine the private non-economic benefits and costs of vocational and technical education.

CHAPTER III

METHODOLOGY

A survey instrument was prepared by the researcher during the month of April, 1974 to survey graduates of the Account Clerk program and Business Administration-Accounting program who graduated in May, 1973. Another survey was constructed at the same time to survey individuals who had applied to attend the vocational-technical institute but did not attend. The survey was to determine attitudes toward education, concerning present job, if they had decided on a lifetime occupation, if they were employed, and if they were satisfied with living in their present community. The graduate survey also included questions pertaining to their attendance at Southwest Tech, such as, were they employed somewhere other than Southwest Tech while attending school, if so, how many hours and the wage; did they commute, if so, how many miles; were they inconvenienced while attending school, did they think the benefits or the costs were higher than the other. These questions were asked in order to determine what it cost the student to go to school and to determine how long it will take him to pay this back. The no shows were asked in addition how many hours they worked in a week and their wage.

The survey was constructed by reviewing the literature and using information from previous surveys and from comments ascertained by the personal interview technique from counselors and the Division Chairman of Business and Marketing Education at the Southwest Wisconsin Vocational-Technical Institute. The survey instruments are shown in Appendices A and B.

The first mailing of the survey was sent out May 2, 1974; a copy of the cover letters are in Appendices C and D. The second mailing was sent out May 14, 1974; a copy of these cover letters are in Appendices E and F.

CHAPTER IV

FINDINGS AND ANALYSIS

Thirty surveys were mailed to students who had graduated in May, 1973 from the Account Clerk program and Business Administration-Accounting program at Southwest Wisconsin Vocational-Technical Institute.

Thirty-one surveys were mailed to individuals who had applied to attend Southwest Tech during the 1973-74 school year but did not attend.

Sixty-three point three percent of the graduate surveys were returned and 41.9 peroent of the non-attender surveys were returned.

The following illustrates the results of the survey:

To what extent are you satisfied with living in your present community, such as: friendliness, school system, police and fire protection, cultural activities, medical services, etc.

	Graduates	Non-attenders
Very Dissatisfied		7.7%
Some Dissatisfaction	10.5%	7.7%
Average Satisfaction	47.4%	46.2%
Above Average Satisfaction	26.3%	30.7%
Very Well Satisfied	15.8%	7.7%
Are you employed?	85.0%	61.5%

While you attended vocational school, were you inconvenienced such as: being relocated, forced to change habits, lost leisure time, missed friends, became irritated, disgusted or did you gain friends and other pleasures as compared to if you would not have gone to VTAE school?

Very greatly inconvenienced	
Moderately inconvenienced	
Average inconvenience	26.3%
No inconvenience	26.3%
Very great convenience	47.4%

Regarding costs and benefits of vocational and technical education in Wisconsin to you as an individual in your opinion, do you feel that:

The costs are very much higher than the benefits.	5.3%
The costs are somewhat higher than the benefits.	10.5%
The costs are about equal to the benefits.	42.1%
The benefits are somewhat more than the costs.	5.3%
The benefits are very much more than the costs.	36.8%

TABLE I

GRADUATES ATTITUDES TOWARD EDUCATION

	SD	D	U	A	SA
1. A person can learn more by going to vocational school for 2 years than if he were working 2 years during that time.	0%	21.1%	31.6%	42.1%	5.3%
2. A post-high school education makes a person a better citizen of this country.	5.3	15.8	15.8	57.9	5.3
3. Education helps a person to use his leisure time to better advantage.	0	21.1	10.5	63.2	5.3
4. A post-high school education is worth the time and effort it requires.	0	0	10.5	63.2	26.3
5. Education encourages an individual to think for himself.	0	5.3	15.8	63.2	15.8
6. Education prepares people to face the problems of real life when they get out of school.	0	15.8	21.1	47.4	15.8
7. Education will tend to promote solutions to the world's problems.	0	15.8	21.1	42.1	21.1
8. Vocational, technical courses are practical.	0	0	5.3	63.2	31.6
9. The more education a person has, the better he is able to enjoy life.	11.1	33.3	5.6	33.3	16.6
10. A person is foolish to keep on going to school after he finishes high school if he can get a job.	26.3	57.9	5.3	10.5	0

TABLE II

ATTITUDES TOWARD PRESENT JOB

	SD	D	U	A	SA
1. There is a good future for me on my job.	12.5%	25.0%	12.5%	43.8%	6.3%
2. I like the people with whom I work.	6.7	0	6.7	66.7	20.0
3. I try hard to do high quality work.	0	0	6.3	81.3	12.5
4. I am very well trained for my present job.	6.3	6.3	12.5	50.0	25.0
5. This the kind of work for which my education prepared me.	37.5	12.5	6.3	43.8	0
6. I like my job.	12.5	12.5	6.3	50.0	18.7
7. As a result of my qualifications, I am more of an asset to the company.	0	20.0	33.3	33.3	13.3
8. My boss cares about me and my job.	13.3	6.7	6.7	60.0	13.3
9. Because of my training, I can better cope with the people around me.	0	13.3	6.7	73.3	6.7
10. I feel my family has benefited from my job as we have a happier family situation.	6.3	12.5	37.5	31.3	12.5
11. My job is boring.	12.5	37.5	12.5	31.3	6.3
12. The only thing I want from my job is the paycheck.	25.0	50.0	0	18.7	6.3
13. I would like to change to another occupation.	26.7	13.3	6.7	33.3	20.0
14. I would like to change to a differnt employer but keep in the same kind of work.	25.0	62.5	12.5	0	0
15. I consider my job temporary for me.	12.5	6.3	37.5	37.5	6.3

TABLE II

(continued)

	SD	D	U	A	SA
16. It's ok for me to be absent when I feel like it.	37.5%	50.0%	12.5%	0%	0%
17. My boss could replace me tomorrow.	6.7	20.0	46.7	20.0	6.7
18. I feel I would be in the same job today even if I hadn't had any training.	0	50.0	25.0	18.7	6.3

TABLE III

NON-ATTENDERS ATTITUDES TOWARD EDUCATION

	SD	D	U	A	SA
1. A person can learn more by going to a post-high school institution for 2 years than if he were working 2 years during that time.	0%	23.1%	23.1%	38.5%	15.4%
2. A post-high school education makes a person a better citizen of this country.	7.7	30.7	23.1	23.1	15.4
3. Education helps a person to use his leisure time to better advantage.	7.7	15.4	23.1	46.2	7.7
4. Education encourages an individual to think for himself.	7.7	7.7	7.7	53.8	23.1
5. Education prepares people to face the problems of real life when they get out of school.	0	15.4	30.7	23.1	30.7
6. Education will tend to promote solutions to the world's problems.	0	7.7	15.4	61.5	15.4
7. Courses I have had in my educational experiences have been practical and of value to me.	7.7	0	0	69.2	23.1
8. The more education a person has, the better he is able to enjoy life.	0	23.1	38.5	30.7	7.7
9. I feel that education is worth the time and effort it requires.	0	0	15.4	53.8	30.7
10. A person is foolish to keep on going to school if he can get a job.	46.2	23.1	23.1	7.7	0

TABLE IV

NON-ATTENDERS ATTITUDES TOWARD PRESENT JOB

	SD	D	U	A	SA
1. There is a good future for me on my job.	12.5%	25.0%	12.5%	37.5%	12.5%
2. I like the people with whom I work.	0	12.5	0	37.5	50.0
3. I try hard to do high quality work.	0	12.5	0	50.0	37.5
4. I am very well trained for my present job.	12.5	0	25.0	62.5	0
5. My education has prepared me for my present job.	37.5	25.0	12.5	25.0	0
6. I like my job.	12.5	0	12.5	37.5	37.5
7. I am an asset to the company.	0	12.5	12.5	62.5	12.5
8. My boss cares about me and my job.	12.5	0	25.0	50.0	12.5
9. I feel I can cope well with the people around me.	0	0	0	62.5	37.5
10. I feel that I would be in the same job today even if I had had training from a vocational school.	25.0	37.5	12.5	25.0	0
11. I feel my family has benefited from my job as we have a happier family situation.	12.5	12.5	37.5	37.5	0
12. My job is boring.	37.5	37.5	12.5	12.5	0
13. The only thing I want from my job is the paycheck.	12.5	62.5	0	25.0	0
14. I would like to change to another occupation.	0	37.5	12.5	37.5	12.5
15. I would like to change to a different employer but keep in the same kind of work.	37.5	37.5	12.5	0	12.5
16. I consider my job temporary for me.	12.5	12.5	25.0	37.5	12.5

TABLE IV

(continued)

	SD	D	U	A	SA
17. It's ok for me to be absent when I feel like it.	37.5%	37.5%	12.5%	12.5%	0%
18. My boss could replace me tomorrow.	0	37.5	25.0	25.0	12.5

Expected Outcomes of Questionnaire

1. Graduates would be more satisfied with their community than non-attenders would be with their community.
2. More graduates than non-attenders would be employed.
3. Graduates would be earning more money than the non-attenders.

Attitudes Toward Education

1. Graduates would agree to a greater extent than non-attenders that a person can learn more by going to a post-high school institution for 2 years than if he were working 2 years during that time.
2. Graduates would disagree to a greater extent than non-attenders that a person is foolish to keep on going to school after he finishes high school if he can get a job.
3. A greater percentage of graduates than non-attenders would agree that a post-high school education makes a person a better citizen of this country.
4. A greater percentage of graduates than non-attenders would agree that education helps a person to use his leisure time to better advantage.
5. Graduates would tend to agree more than the non-attenders that a post-high school education is worth the time and effort it requires.
6. Graduates would again tend to agree more than the non-attenders that education encourages an individual to think for himself.
7. Graduates, also, would agree to a greater extent than would non-attenders that education prepares people to face the problems of real life when they get out of school.
8. A greater percentage of graduates than non-attenders would say that education will tend to promote solutions to the world's problems.

9. Graduates would think that courses they have had were more practical and of more value than non-attenders would think of any courses they may have attended.

10. Graduates would agree that the more education a person has, the better he is able to enjoy life, while non-attenders would disagree to the statement the more education a person has, the better he is able to enjoy life.

Attitudes Toward Present Job.

1. A greater percentage of graduates than non-attenders would think that there is a good future for them on their jobs.

2. There would be a greater percentage of non-attenders than graduates agreeing that their job is boring.

3. Graduates would tend to agree more than non-attenders that they like the people with whom they work.

4. Graduates would tend to disagree to a greater extent than non-attenders that the only thing they want from their job is the paycheck.

5. A larger percentage of graduates would say they agreed than would non-attenders that they try to do high quality work.

6. Graduates would disagree to a greater extent than would non-attenders that they would like to change to another occupation.

7. Non-attenders again would tend to agree more that they would like to change to a different employer but keep in the same kind of work.

8. Graduates would agree to a greater extent than non-attenders that they are well trained for their present job.

9. More graduates than non-attenders would also agree that their education has prepared them for their present job.

10. A larger percentage of non-attenders than graduates would say their job is temporary for them.

11. More non-attenders than graduates would agree that it's ok for them to be absent when they feel like it.

12. A greater percentage of graduates than non-attenders would say they like their job.

13. Graduates would feel, more than non-attenders would, that they are an asset to the company

14. Graduates would believe to a greater extent than would non-attenders that their boss cares about them and their job

15. A greater percentage of non-attenders would agree than would graduates that their boss could replace them tomorrow.

16. Graduates would feel more than would non-attenders that they can cope well with the people around them.

17. Graduates would disagree to the statement that they would be in the same job today even if they hadn't had any training Non-attenders would disagree that they would be in the same job today even if they had had training from a vocational school.

18. Graduates would tend to agree more than would non-attenders that their family has benefited from their job, that they have a happier family situation

19. More graduates than non-attenders have decided on the occupation or type of work they plan to make as their lifetime work.

The following data show the statements on the questionnaire which did and did not turn out as expected These statements are numbered to correspond to the preceding expected outcomes of the questionnaire Twenty-three statements resulted in data as expected; 9 statements did not result with data as was expected.

Statements on the questionnaire which resulted in data as expected.

Expectation Number

1. Graduates are more satisfied with living in their present community than are non-attenders.
2. A greater percentage of graduates than non-attenders are employed.
3. The average wage of the graduates is $5,260.79 a year. The average wage of the non-attenders is $4,675.52 a year.

Attitudes Toward Education

2. 84.2% of the graduates disagreed with the statement that a person is foolish to keep on going to school after he finishes high school if he can get a job. Only 69.3% of the non-attenders disagreed with this statement.
3. 63.2% of the graduates felt that a post-high school education makes a person a better citizen of this country; only 38.5% of the non-attenders felt this way.
4. 68.5% of the graduates said that education helps a person to use his leisure time to better advantage. Only 53.9% of the non-attenders said that education helps a person to use his leisure time to better advantage.
5. 89.5% of the graduates and 84.5% of the non-attenders felt that education is worth the time and effort it requires.
6. 79% of the graduates and 76.9% of the non-attenders felt that education encourages individuals to think for themselves.
7. 53.8% of the non-attenders and 63.2% of the graduates felt that education prepares people to face the problems of real life when they get out of school.
9. 92.3% of the non-attenders and 94.8% of the graduates said their courses have been practical.

10. 49.9% of the graduates and 38.4% of the non-attenders felt that the more education a person has, the better he is able to enjoy life.

Attitudes Toward Present Job

1. 50.1% of the graduates and 50% of the non-attenders both thought that there was good future for them on their job.
5. More of the graduates (93.8%) than the non-attenders (87.5%) said that they try hard to do high quality work.
7. 50% of the non-attenders said they would like to change to a different employer, as compared to 0% of the graduates wanting to change to a different employer.
6. 40% of the graduates disagreed that they would like to change to another occupation as compared to 37.5% of the non-attenders disagreeing that they would like to change to another occupation.
8. More the graduates (75%) than non-attenders (62.5%) said they were very well trained for their present job.
9. 43.8% of the graduates agreed or strongly agreed that their present job was the kind of work for which their education prepared them, while only 25% of the non-attenders agreed or strongly agreed to this.
10. 50% of the non-attenders consider their job temporary for them, only 43.8% of the graduates consider their job temporary for them.
11. 12.5% of the non-attenders stated that it is ok for them to be absent when they feel like it, 0% of the graduates said that they can be absent when they feel like it.
14. 73.3% of the graduates indicate that their boss cares about them and their job, only 62.5% of the non-attenders feel that their boss cares about them and their job.

15. Only 26.7% of the graduates agreed or strongly agreed that their boss could replace them tomorrow, while 37.5% of the non-attenders agreed or strongly agreed that their boss could replace them tomorrow.

17. 50% of the graduates disagreed or strongly disagreed that they would be in the same job today even if they hadn't had any training, also, 62.5% of the non-attenders felt that if they had training from a vocational school they would be in a different occupation today.

18. 43.8% of the graduates compared to 37.5% of the non-attenders agreed or strongly agreed that their family has benefited from their job, that they have a happier family situation.

Questionnaire statements which did not turn out as expected:

Expectation Number

1. 63.9% of the non-attenders agreed or strongly agreed that a person can learn more by going to a post-high school institution for two years than if he were working 2 years during that time, while only 47.4% of the graduates agreed with this statement.

8. More of the non-attenders (76.9%) than graduates (63.2%) said that education will tend to promote solutions to the world's problems.

Attitudes Toward Present Job

2. 37.6% of the graduates think that their job is boring, only 12.5% of the non-attenders think that their job is boring.

3. 86.7% the graduates and 87.5% of the non-attenders felt that they liked the people with whom they worked.

4. 25% of the graduates agreed or strongly agreed and 75% disagreed or strongly disagreed that all they want from their job is the paycheck, 25% of the non-attenders also agreed or strongly agreed and 75% disagreed or strongly disagreed that all they want from their job is the paycheck.

12. 75% of the non-attenders said that they like their job, compared to 68% of the graduates saying that they like their job.

13. 75% of the non-attenders felt that they were an asset to the company, while only 46.6% of the graduates felt this way.

16. 100% of the non-attenders said they could cope well with the people around them, while only 80% of the graduates said they could cope well with the people around them.

19. 76.9% of the non-attenders said they had decided on their lifetime occupation, only 52.9% of the graduates said they had decided on their lifetime occupation.

Occupations Listed by Non-Attenders	Occupations Listed by Graduates
outreach worker	education
secretarial	banking
medical assistant, receptionist	bookkeeper
secretarial-medical	farmer
accounting	accounting
army	clerk-typist, receptionist
business manager	clerk-typist
secretarial work	keypunch, business machines operator
nursing	business owner
history	
business	

The other information obtained in the survey was used to determine the amount of time it would take the graduates to pay back what it cost them to attend school.

Income and expenses of the student included the following:

Expenses	Income
books and supplies	wages during program
room and board	veterans benefits
fees	loans
transportation	state and federal grants
foregone earnings	rehab
	WIN
	MDTA

The costs of books and supplies, fees, and room and board were obtained from the Division Chairman of Business and Marketing Education. Transportation costs were determined by the survey using 12 cents a mile as the cost to the student. Foregone earnings were obtained in two ways, one was from a Survey of Wage Rates in Selected Occupations which included wage rates for Grant County, the other was from the 1974 employer closed order file of the Employment Service in Lancaster. These are shown in Appendices G and H

Wages made during the program were obtained from the survey information. Veterans benefits, loans, state and federal grants, rehab, WIN, and MDTA were obtained from the Student Services, and the present wage of the graduates was already available from the student follow-up survey.

The following formula was used to calculate the payback period:

Present wage = A
- Average wage of non-attenders = B
difference between what graduate is making and what non-attender is making = C

Payback period in years = E
C | What it cost graduate to go to school = D

The following tables illustrate the information for calculating the payback period. The payback period could not be included for all 30 graduates because there was not sufficient data to perform all calculations.

EXPENSES					INCOME						
Books & Supplies	Room & Board	Fees	Transportation	Foregone Earnings*	During Program	Vet. Benefits	Loans	State & Fed. Grants Rehab., WIN MDTA	Net Cost	Now Making	Payback Period
$ 81.44	$	$ 82	$	$3087.36	$	$	$	$ 500.00	$2750.30	$4680.00	5.51
81.44	950	82		3087.36	26.40		1000	300.00	2874.40	5137.60	3.01
81.44	950	82		3087.36	1140.48				3060.32	4576.00	7.75
81.44	950	82		3087.36	54.87			400.00	3745.93	4368.00	20.0.
81.44	950	82		3087.36					4200.80	4680.00	8.42
81.44		82	492.00	3087.36	672.00				4178.16	6032.00	2.26
81.44	950	82		3087.36		1980			1107.36	8840.00	.24
181.36		148	1968.00	6174.72	3971.90				11004.26	6500.00	4.75
181.36		148	1968.00	6174.72	1428.20		400	300.00	6343.88	4368.00	33.8
181.36		148	708.48	6174.72	785.42			200.00	6227.14	5262.40	2.88
181.36	1900	148		6174.72	2430.04			300.00	5674.04	4680.00	11.3
181:36		148		6174.72	1196.65			1880.00	3427.43	6540.00	1.45
181.36		148		6174.72					6504.08	6300.00	3.07
181.36	1900	148	865.92	6174.72	4608.00			7265.60	gain 2603.60	5200.00	0
181.36	1900	148	522.72	6174.72	1612.80	5364		7649.60	gain 5699.60	7200.00	0

* based upon the Survey of Wage Rates in Selected Occupations, Wisconsin Dept. of Industry, Labor and Human Relations, May, 1974

6.7 years average payback period

EXPENSES					INCOME						
ks & plies	Room & Board	Fees	Transpor-tation	Foregone Earnings*	During Program	Vet. Benefits	Loans	State & Fed. Grants. Rehab., WIN MDTA	Net Cost	Now Making	Payback Period
$ 81.44	$	$ 82	$	$3102.72	$	$	$	$ 500.00	$4680.00	$2766.16	5.78 yr
81.44	950	82		3102.72	26.40		1000	300.00	5137.60	2889.76	3.09
81.44	950	82		3102.72	54.87			400.00	4368.00	3761.29	22.6
81.44	950	82		3102.72					4680.00	4216.16	8.81
81.44		82	492.00	3578.88	672.00				6032.00	3562.32	3.01
81.44	950	82		3578.88		1980			8840.00	2712.32	.68
181.36		148	1968.00	7157.76	3971.90				6500.00	5483.22	3.32
181.36		148	708.48	6205.44	785.42			200.00	5262.40	6257.86	5.9
181.36	1900	148		6205.44	2430.04			300.00	4680.00	5704.76	11.9
181.36		148		7157.76	1196.65			1880.00	6540.00	4410.47	2.6
181.36	1900	148	865.92	7157.76	4608.00			7265.60	5200.00	gain 1620.56	0
181.36	1900	148	522.72	7157.76	1612.80	5364		7649.60	7200.00	gain 4716.56	0

* the foregone earnings are based upon wages obtained from the Employment Service Employer Closed Order file for 1974.

5.6 yr. average payback period

CHAPTER V

CONCLUSIONS

The major purposes of this study were to (1) identify the programs to be studied; (2) identify the private economic and non-economic benefit and cost variables of vocational and technical education; (3) determine the private economic benefits and costs of vocational and technical education; (4) determine the private non-economic benefits and costs of vocational and technical education.

The findings of the study are based upon responses from 19 out of 30 graduates and 13 out of 31 individuals who applied to the institute but did not attend. The graduates and non-attenders responded to statements about their attitudes toward education, toward their job, and toward the community in which they live. In addition, the graduates also responded to questions concerning their attendance at Southwest Tech and those who didn't attend Southwest Tech were asked if they were employed, number of hours, and their wage.

In summarizing the results, the survey was divided into sections. The first results shown were of those questions given to both the graduates and the non-attenders. The next section includes those findings of questions asked only of the graduates. The next two parts are given in percentages in tables of graduates attitudes toward education and attitudes toward present job; and non-attenders attitudes toward education and toward present job.

The findings are then grouped into three parts: (1) expected outcomes of the questionnaire, (2) the statements which came out as expected and (3) the statements which didn't turn out as expected.

The final results given are included in the last two tables illustrating the amount of time it will take the graduates to payback the amount they lost while attending Southwest Tech.

In reviewing the findings of the study, the objectives can now be reviewed. The programs which were studied in the project were the Account Clerk and Business

Administration-Accounting programs. The private economic benefit variables were income after graduation from Southwest Tech. The private economic cost variables were books and supplies, room and board, fees, transportation, and foregone earings. The private non-economic cost and benefit variables were satisfaction with your community, convenience, inconvenience, and attitudes toward education, present job, and making a decision as to a lifetime occupation.

The private economic costs and benefits were determined. The costs were calculated and shown in Tables V and VI; the average payback periods were found to be 6.97 years, and 5.6 years. The private economic benefits were that the graduates on the average are making $5,260.79 a year while the non-attendants are making $4,675.52 a year.

The private non-economics costs and benefits were also determined. It was found that graduates were more satisfied with living in their community and a greater percentage of graduates were employed. Forty-seven point four percent of the graduates said they gained friends and other pleasures while they attended Southwest Tech. Forty-two point one percent of the graduates felt that the benefits of vocational education were more than the costs. The results also showed that the graduates had more of a positive attitude toward education and toward their job than did those who did not go to the vocational-technical institute. The only non-economic variable determined which would be considered a cost to the graduate was that only 52.9% of the graduates have decided on their lifetime occupation as compared to 76.9% of the non-attenders having decided on their lifetime occupation.

It can be concluded from these findings that vocational-technical education at Southwest Wisconsin Vocational-Technical Institute is a worthwhile investment for the individual. Graduates have higher employment, higher earnings, and are

more satisfied with their jobs and their community. However, the results of this study cannot be generalized and applied to all cases of vocational-technical education. Further studies need to be conducted and if a significant number of studies find vocational-technical education a sound investment then generalizations may be made.

Recommendations for further study would be to use a larger sample of both graduates and non-graduates. Additional information is needed for more accurate data. This would require a more comprehensive survey which would require an incentive to facilitate the survey population in completion of the questionnaire.

APPENDIX A

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Place an X in front of the response to question number 1 which best describes the way you feel about the community in which you live.

Answer question 2 in regard to whether or not you are presently employed.

Questions 3 through 6 should be answered in regard to your employment while you were attending Southwest Tech.

Questions 7 and 8 are needed to determine costs to you of attending the Institute.

Place an X in front of the response to questions 9 and 10 which best describe your feelings about your vocational education.

The final part of the survey is to determine your attitudes toward education and toward your present job. Read each statement and then circle the response which best describes how you feel, whether you strongly disagree, disagree, are uncertain, agree, or strongly agree with the statement. Please read each statement carefully in completing the survey.

Thank you.

DESCRIPTIVE COST-BENEFIT STUDIES OF SELECTED WISCONSIN VTAE PROGRAMS

1. To what extent are you satisfied with living in your present community, such as: friendliness, school system, police and fire protection, cultural activities, medical services, etc.

_____ Very Dissatisfied
_____ Some Dissatisfaction
_____ Average Satisfaction
_____ Above Average Satisfaction
_____ Very Well Satisfied

2. Are you employed?

_____ Yes
_____ No

3. Were you employed full-time or part-time while attending classes at Southwest Tech?

_____ Yes, if yes, answer questions 4 thru 40
_____ No, if no, answer questions 7 thru 40

4. If yes, did you work for an employer other than Southwest Tech?

_____ Yes
_____ No

5. How many hours did you work during an average week?

_____ hours

6. What was your average wage before deductions?

$_____ per hour
$_____ per week } give only one answer
$_____ per month

7. While attending Southwest Tech, did you commute or live in town?

_____

8. If you commuted, how many miles did you drive in a day? _____

How many days a week did you drive? _____

9. While you attended vocational school, were you inconvenienced such as: being relocated, forced to change habits, lost leisure time, missed friends, became irritated, disgusted. Or did you gain friends and other pleasures as compared to if you would not have gone to VTAE school?

_____ Very greatly inconvenienced, irritated, disappointed, etc.
_____ Moderately inconvenienced, irritated, disappointed, etc.
_____ Average inconvenience and disappointments, leisure, friendships.
_____ No inconvenience, irritation or disappointments. Gained some leisure, friends.
_____ Very great convenience, gained much leisure, pleasure, friends, social interaction.

10. Regarding costs and benefits of vocational and technical education in Wisconsin to you as an individual in your opinion, do you feel that (check most appropriate space):

_____ The costs are very much higher than the benefits.
_____ The costs are somewhat higher than the benefits.
_____ The costs are about equal to the benefits.
_____ The benefits are somewhat more than the costs.
_____ The benefits are very much more than the costs.

ATTITUDES TOWARD EDUCATION

	Circle Your Response				
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
11. A person can learn more by going to vocational school for 2 years than if he were working 2 years during that time.	SD	D	U	A	SA
12. A person is foolish to keep on going to school after he finishes high school if he can get a job.	SD	D	U	A	SA
13. A post-high school education makes a person a better citizen of this country.	SD	D	U	A	SA
14. Education helps a person to use his leisure time to better advantage.	SD	D	U	A	SA
15. A post-high school education is worth the time and effort it requires.	SD	D	U	A	SA

		Circle Your Response				
		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
16.	Education encourages an individual to think for himself.	SD	D	U	A	SA
17.	Education prepares people to face the problems of real life when they get out of school.	SD	D	U	A	SA
18.	Education will tend to promote solutions to the world's problems.	SD	D	U	A	SA
19.	Vocational, technical courses are practical.	SD	D	U	A	SA
20.	The more education a person has, the better he is able to enjoy life.	SD	D	U	A	SA

If employed, please answer the following questions.

ATTITUDES TOWARD PRESENT JOB

21.	There is a good future for me on my job.	SD	D	U	A	SA
22.	My job is boring.	SD	D	U	A	SA
23.	I like the people with whom I work.	SD	D	U	A	SA
24.	The only thing I want from my job is the paycheck.	SD	D	U	A	SA
25.	I try hard to do high quality work.	SD	D	U	A	SA
26.	I would like to change to another occupation.	SD	D	U	A	SA
27.	I would like to change to a different employer but keep in the same kind of work.	SD	D	U	A	SA
28.	I am very well trained for my present job.	SD	D	U	A	SA
29.	This is the kind of work for which my education prepared me.	SD	D	U	A	SA
30.	I consider my job temporary for me.	SD	D	U	A	SA

		Circle Your Response				
		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
31.	It's ok for me to be absent when I feel like it.	SD	D	U	A	SA
32.	I like my job.	SD	D	U	A	SA
33.	As a result of my qualifications, I am more of an asset to the company.	SD	D	U	A	SA
34.	My boss cares about me and my job.	SD	D	U	A	SA
35.	My boss could replace me tomorrow.	SD	D	U	A	SA
36.	Because of my training, I can better cope with the people around me.	SD	D	U	A	SA
37.	I feel I would be in the same job today even if I hadn't had any training.	SD	D	U	A	SA
38.	I feel my family has benefited from my job as we have a happier family situation.	SD	D	U	A	SA
39.	Have you decided on what occupation or type of work you plan to make as your life time work?	_____ Yes			_____ No	
40.	If you answered "yes" to the above question, name the occupation or field.	_____				

If you desire a copy of the completed survey, please check here - ◯

Name _____

Address _____

_____

APPENDIX B

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Place an X in front of the answer to question number 1 which best describes the way you feel about the community in which you now live.

Answer questions 2 through 5 in regard to your present job, if you are presently employed.

The remaining part of the survey concerns your attitudes toward education and toward your present job. Read each statement and then circle the response which best describes how you feel, whether you strongly disagree, disagree, are uncertain, agree or strongly agree with the statement. Please read each statement carefully in completing the survey.

Thank you.

ATTITUDE STUDY TOWARD EMPLOYMENT AND EDUCATION

1. To what extent are you satisfied with living in your present community, such as: friendliness, school system, police and fire protection, cultural activities, medical services, etc.

_____ Very Dissatisfied
_____ Some Dissatisfaction
_____ Average Satisfaction
_____ Above Average Satisfaction
_____ Very Well Satisfied

2. Are you employed?

_____ Yes. If yes, answer questions 3 thru 35.
_____ No. If not employed, answer questions 6 thru 15 and 34 and 35.

3. Address of employment

_____
(City) (State)

4. How many hours do you work during an average week?

_____ hours

5. What is your present wage before deductions?

$_____ per hour
$_____ per week
$_____ per month

Give only one answer

ATTITUDES TOWARD EDUCATION

	Circle Your Response				
	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
6. A person can learn more by going to a post-high school institution for 2 years than if he were working 2 years during that time.	SD	D	U	A	SA
7. A person is foolish to keep on going to school if he can get a job.	SD	D	U	A	SA
8. A post-high school education makes a person a better citizen of this country.	SD	D	U	A	SA

		Circle Your Response				
		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
9.	Education helps a person to use his leisure time to better advantage	SD	D	U	A	SA
10.	Education encourages an individual to think for himself.	SD	D	U	A	SA
11.	Education prepares people to face the problems of real life when they get out of school	SD	D	U	A	SA
12	Education will tend to promote solutions to the world's problems.	SD	D	U	A	SA
13	Courses I have had in my educational experiences have been practical and of value to me	SD	D	U	A	SA
14.	The more education a person has, the better he is able to enjoy life	SD	D	U	A	SA
15.	I feel that education is worth the time and effort it requires	SD	D	U	A	SA
	ATTITUDES TOWARD PRESENT JOB					
16.	There is a good future for me on my job.	SD	D	U	A	SA
17.	My job is boring.	SD	D	U	A	SA
18.	I like the people with whom I work.	SD	D	U	A	SA
19.	The only thing I want from my job is the paycheck.	SD	D	U	A	SA
20.	I try hard to do high quality work.	SD	D	U	A	SA
21.	I would like to change to another occupation.	SD	D	U	A	SA
22.	I would like to change to a different employer but keep in the same kind of work.	SD	D	U	A	SA
23.	I am very well trained for my present job.	SD	D	U	A	SA

		Circle Your Response				
		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
24.	My education has prepared me for my present job	SD	D	U	A	SA
25.	I consider my job temporary for me	SD	D	U	A	SA
26	It's ok for me to be absent when I feel like it.	SD	D	U	A	SA
27	I like my job	SD	D	U	A	SA
28	I am an asset to the company	SD	D	U	A	SA
29.	My boss cares about me and my job	SD	D	U	A	SA
30.	My boss could replace me tomorrow	SD	D	U	A	SA
31.	I feel I can cope well with the people around me.	SD	D	U	A	SA
32.	I feel that I would be in the same job today even if I had had training from a vocational school.	SD	D	U	A	SA
33.	I feel my family has benefited from my job as we have a happier family situation	SD	D	U	A	SA
34.	Have you decided on what occupation or type of work you plan to make as your life time work?	_____ Yes			_____ No	
35.	If you answered "yes" to the above question, name the occupation or field	_____				

If you desire a copy of the completed survey please check here - ◯

Name _____

Address _____

_____

APPENDIX C

May 2, 1974

Dear Graduate,

The Wisconsin Board of Vocational, Technical and Adult Education is conducting, during 1974, studies to determine benefits of vocational education for graduates. Southwest Tech has selected the graduates of Account Clerk and Business Administration-Accounting programs for the study.

We need your assistance as a graduate of Southwest Tech to help us determine the cost for an individual to invest in vocational, technical education and the benefits or opportunities you may gain by attending Southwest Tech or other technical institutes in Wisconsin.

Please help us by completing the survey and returning it in the enclosed envelope, which we have provided for your convenience. Any information provided by you on this survey will be strictly confidential and no names of any graduate will be released to anyone but the researcher. We will be pleased to provide you with the completed study if you are interested in knowing the average cost and benefit of vocational, technical education for a graduate.

Your cooperation in this survey will help decision makers in the planning, developing, and evaluating of post-secondary VTAE programs and will also assist potential students in making their career decision.

Sincerely,

Susan Sewell
Research Specialist

Donald Marcouiller, Chairman
Business, Marketing & Applied Subjects

SS/sk

Enclosures

APPENDIX D

May 2, 1974

Southwest Tech has been asked by the Wisconsin Board of Vocational, Technical and Adult Education to conduct an attitude survey of southwest Wisconsin residents. Since you once applied at Southwest Tech, we assume you are interested in education and employment.

We need your help with this study to determine attitudes of southwest Wisconsin residents toward education and employment. Please take a few minutes of your time to complete the survey. We have enclosed a postage paid envelope for your convenience. Any information provided by you will be strictly confidential and your answers will not be identified to anyone. This survey will allow you to influence the planning and evaluation of education for the State of Wisconsin and also help potential students in making their career decisions.

Thank you for your cooperation.

Sincerely,

Susan Sewell
Research Specialist

SS/sk

Enclosures

APPENDIX E

May 14, 1974

Recently you were contacted by Southwest Tech in regard to a study on costs and benefits of vocational education. We need your help, as a graduate, in evaluating and improving your program of study.

We realize your schedule is busy, but would you please take a few minutes of your time to complete the questionnaire, if you have not already done so, and return it by May 22, 1974. We have provided a postpaid envelope for your convenience.

You can be assured that the information provided by you is strictly confidential and no names of any graduate will be released to anyone but the researcher.

Thank you for your cooperation.

Sincerely,

Susan Sewell
Research Specialist

Donald Marcouiller, Chairman
Business, Marketing & Applied Subjects

SS/sk

Enclosures

APPENDIX F

May 14, 1974

Recently you were contacted by Southwest Tech in regard to a survey concerning your attitudes toward education and employment.

We need your help in this study. Please take a few minutes of your time to complete the questionnaire, if you have not already done so, and return it by May 22, 1974. We have provided a postpaid envelope for your convenience.

You can be sure that any information provided by you will be strictly confidential and your answers will not be identified to anyone.

Thank you for your cooperation.

Sincerely,

Susan Sewell
Research Specialist

SS/sk

Enclosures

APPENDIX G

Wages of occupations which do not require post-secondary education or limited specialized skill, obtained from a Survey of Wage Rates in Selected Occupations in 22 Wisconsin areas, May, 1971, Wisconsin Department of Industry, Labor, and Human Relations, Wisconsin State Employment Service, pp. 69-75 used to determine foregone earnings of the students while attending the institute. The wages listed below are for Grant County in which the institute is located.

Truckdriver	$2.62
Laborer	2.62
Janitor	2.12
Cashier	1.87
Carrout	2.12
Waitress	1.37
Kitchen Helper	1.62
Bartender	1.87
Presser	1.87
Average	$2.01 per hour

State of Wisconsin \ DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

EMPLOYMENT SECURITY DIVISION
925 North Madison
Lancaster, Wisconsin 53813
June 10, 1974

VTAE III
Bronson Blvd
Fennimore, Wis. 53809

Attn: Mr. Wagner

Dear Mr. Wagner,

I hope these statistics are helpful.

Entry hourly rates and approximate openings for job opportunities requiring no specific skills:

Males			Females			
#		$	#		$	
2	@	3.00	1	@	3.25	
10	@	2.80	2	@	2.50	
6	@	2.75	2	@	2.40	
42	@	2.50	4	@	2.35	
3	@	2.40	55	@	2.25	
28	@	2.35	8	@	2.20	
6	@	2.30	6	@	2.10	
12	@	2.25	20	@	2.00	
8	@	2.20	22	@	1.88	
4	@	2.15	4	@	1.80	(now$1.88)
40	@	2.00	2	@	1.70	"
2	@	1.75	8	@	1.65	"
			25	@	1.60	(some tips)

Yours truly,

DEPARTMENT OF INDUSTRY
LABOR & HUMAN RELATIONS

Francis G. Brasure, Acting Director
Employment Security Division

By: Lawrence J. Zimprich
Manpower Specialist II

FGB:LJZ:lw
2cc

BIBLIOGRAPHY

Advisory Council on Vocational Education. Vocational Education: The Bridge Between Man and His Work. In Notes and Working Papers Concerning the Administration of Programs Authorized Under Vocational Education Act of 1963 Public Law 88-210, as amended. Subcommittee on Education Committee on Labor and Public Welfare, United States Senate (90th Congress, 2nd Session), March, 1968, pp. 1-402.

Austin, John J. and Donald A. Sommerfeld. An Evaluation of Vocational Education for Disadvantaged Youth. Muskegon, Michigan. The Public Schools of the City of Muskegon, April, 1967, pp.203.

Brazziel, William F. "Effects of General Education in Manpower Programs." Journal of Human Resources, 1:39-44, Summer, 1966.

Carroll, Adger B and Loren A. Ihnen. "Costs and Returns of Technical Education, A Pilot Study," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, July, 1966.

Carol, Arthur and Samuel Parry. "The Economic Rationale of Occupational Choice" Industrial and Labor Relations Review 21:183-196; January, 1968.

Corazzini, Andrew J. "Vocational Education, A study of Benefits and Costs" Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, 1966.

Cvancara, Joseph G. Input-Output Relationships Among Selected Intellectual Investments in Agriculture. Doctor's Thesis. Minneapolis, University of Minnesota, 1964, 127 pp. Abstract: Dissertation Abstracts 26:845; 1965.

David, Bruce F. "Benefit/Cost Analysis of Vocational Education: A Survey" In Arnold Kotz (Ed.), Occupational Education: Planning and Programming. Volume Two. Menlo Park, California: Stanford Research Institute, September, 1967, pp. 309-333.

Duis, Harold and George Sanders. "Employment of Vocational Graduates." American Education 4:29; February, 1968.

Eninger, Max U. The Process and Product of T & I High School Level Vocational Education in the United States: The Product. Pittsburg, PA American Institutes for Research, September, 1965.

Fein, Rashi "Brookings Institute Conference on Vocational Education: Introduction." Vocational Education. Supplement to the Journal of Human Resources, Vol. 3, 1968, pp. 1-16.

Hu, Teh-wei; Maw Lin Lee, and Ernst W. Stromsdorfer, "A Cost-Effectiveness Study of Vocational Education," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, October, 1968.

Innes, Jon T.; Paul B. Jacobson; and Roland J. Pelligrin. The Economic Returns to Education: A Survey of Findings. Eugene, Ore. Center for the Advanced Study of Educational Administration, University of Oregon, 1965, 45 pp.

Kaufman, Jacob J. "Cost-Effectiveness Analysis as a Method for the Evaluation of Vocational and Technical Education," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, December, 1968.

Kraft, Richard H.P., "Implementing Cost-Benefit Research in Education," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, April, 1972.

Kraft, Richard H.P., "Cost Effectiveness Analysis of Vocational-Technical Education Programs," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, October, 1968 to June, 1969.

Main, Earl D. "A Nationwide Evaluation of MDTA Institutional Job Training." Journal of Human Resources 3:159-170; Spring, 1968.

Mangum, Garth L. "Evaluating Vocational Education:Problems and Priorities." In Arnold Kotz (Ed.), Occupational Education:Planning and Programming. Volume One. Menlo Park, Calif:Stanford Research Institute, September, 1967, pp. 65-90.

Parker, Charles A., "Cost Benefit Analysis: Non-Traditional Education for the Disadvantaged," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, 1973.

Pejovich, Svetozar and William Sullivan. The Role of Technical Schools in Improving the Skills and Earning Capacity of Rural Manpower: A Case Study. Washington, D.C.:Office of Manpower Policy, Evaluation and Research, U.S. Department of Labor, September, 1966, 19 pp.

Persons, Edgar A; Gordon I. Swanson; Howard M. Kittleson; and Gary W. Leske. An Economic Study of the Investment Effects of Education in Agriculture. Final Report, Project No. OE427-65. St. Paul, Minnesota, Department of Agricultural Education, University of Minnesota, April, 1968 165 pp.

Rolloff, John A. The Development of a Model to Assess Instruction in Farm Management in Terms of Economic Returns and the Understanding of Economic Principles. Doctor's Thesis. Columbus: The Ohio State University, 1966, 155 pp. Abstract: Dissertation Abstracts 27:3686-A, 1967.

Schriver, William R, and Roger T. Bowlby, "The Effects of Vocational Training on Labor Force Experience. An Analysis of the Tennessee Area Vocational, Technical School System," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, February, 1971.

Solie, Richard J. "Employment Effects of Retraining the Unemployed." Industrial and Labor Relations Review 21:210-225; January, 1968.

Somers, Gerald G. "The Effectiveness of Vocational and Technical Programs: A National Follow-Up Survey," Educational Resource Information Center Index. Columbus, Ohio:ERIC Clearinghouse, 1971.

Somers, Gerald G. "Retraining: An Evaluation of Gains and Costs." In Arthur M. Ross (Ed.) Employment Policy and the Labor Market. Berkley, California: University of California Press, 1965, pp 271-298.

Somers, Gerald G. and Ernst T. Stromsdorfer, A Benefit-Cost Analysis of Manpower Retraining. Reprinted from the Proceedings of the Seventeenth Annual Meeting, Industrial Relations Research Association, 1964, 14 pp.

Survey of Wage Rates in Selected Occupations, Wisconsin Department of Industry, Labor, and Human Relations, May, 1971.

Taussig, Michael K. "An Economic Analysis of Vocational Education in the New York City High Schools." Vocational Education Supplement to The Journal of Human Resources, Vol. 3, 1968 pp. 59-87.

Luther G. Tweeten. The Role of Education in Alleviating Rural Poverty. Agricultural Economic Report No. 114. Washington, D.C.:Economic Research Service, U.S. Department of Agriculture, June, 1967, 56 pp.

Weisbrod "Investing in Human Capital." Journal of Human Resources 1:1-21; Summer, 1966.