

INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.
4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

Xerox University Microfilms

300 North Zeeb Road
Ann Arbor, Michigan 48106

74-24,325

FOUSEK, Allen Edward, 1931-
NEW CAR DEALERS' PERCEPTION OF SERVICE AND
REPAIR TRAINEES WHO ARE GRADUATES OF HIGH
SCHOOL VOCATIONAL PROGRAMS.

The Ohio State University, Ph.D., 1974
Education, general

University Microfilms, A XEROX Company, Ann Arbor, Michigan

THIS DISSERTATION HAS BEEN MICROFILMED EXACTLY AS RECEIVED.

NEW CAR DEALERS' PERCEPTION OF SERVICE AND
REPAIR TRAINEES WHO ARE GRADUATES OF
HIGH SCHOOL VOCATIONAL PROGRAMS

DISSERTATION

Presented in Partial Fulfillment of the Requirement for the
Degree Doctor of Philosophy in the Graduate School
of The Ohio State University

by

Allen E. Fousek, B.S., M.A.

The Ohio State University

1974

Reading Committee:

Robert M. Reese

Aaron J. Miller

William D. Dowling

Approved by:



Robert M. Reese

Adviser

College of Education

ACKNOWLEDGMENT

This report was made possible through the cooperation of those individuals responsible for hiring automotive service and repair personnel at the several dealerships.

The author was particularly fortunate in having Dr. Robert M. Reese, former Chairman, Department of Vocational-Technical Education, The Ohio State University, Columbus, Ohio, as Advisor, and Dr. William D. Dowling and Dr. Aaron J. Miller as members of the dissertation committee. The completion of this study could not have been accomplished without their cooperation and dedication.

Special acknowledgment is made to Mr. James R. Garfield, II, Executive Vice President and Secretary of the Cleveland Automobile Dealers' Association for providing a complete membership roster of this association.

And a special thanks to my mother and my wife for their patience and understanding.

V I T A

- February 26, 1931..... Born - Cleveland, Ohio
- 1951..... Associate in Business Administration,
Dyke and Spencerian College, Cleveland,
Ohio
- 1964-1968..... John Hay High School, Cleveland, Ohio -
Printing Instructor
- 1969..... B.S. in Education, Kent State University,
Kent, Ohio
- 1970-1972..... Buckeye High School, Medina, Ohio -
Coordinator, Diversified Cooperative
Training
- 1971..... M. A. in Education, Kent State University,
Kent, Ohio
- 1973..... The Cleveland State University, Cleveland,
Ohio - Teacher Educator

PUBLICATIONS

- Career Exploration Program, Grades 9-10 (Workshop participant, August, 1971).
- Certification Requirements for Vocational-Industrial Instructors and Cooperative (Work-Study) Coordinators in the United States. Unpublished Master's Thesis, 1969.
- New Car Dealers' Evaluation of Service and Repair Trainees Who Are Graduates of High School Vocational Programs. Doctoral dissertation.

FIELDS OF STUDY

Major Field:

Vocational-Technical Education. Dr. Robert M. Reese

Minor Fields:

Trade and Industrial Education

Curriculum

Adult Education

Supervision

TABLE OF CONTENTS

	Page
Acknowledgment.....	ii
Vita.....	iii
List of Tables.....	vi
 Chapter	
I INTRODUCTION.....	1
II METHODOLOGY.....	22
III DEMOGRAPHIC ANALYSIS OF NEW CAR DEALERS..	30
Knowledge of Vocational Trade and Industrial Education	
IV PREPARATION FOR EMPLOYMENT OF AUTOMOTIVE SERVICE PERSONNEL.....	48
Personal Characteristics Desired	
V COOPERATION BETWEEN NEW CAR DEALERS AND THE EDUCATIONAL INSTITUTION.....	64
VI RECRUITMENT PRACTICES OF NEW CAR DEALERS.....	80
VII FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.	89
 Appendixes	
A COVER LETTERS AND INSTRUMENT.....	100
B RAW SCORES OF INSTRUMENT.....	112
C MAILING LIST.....	117
BIBLIOGRAPHY.....	131

LIST OF TABLES

Table		Page
1	Title of Respondent.....	31
2	Age of Respondents.....	32
3	Number of Years Responsible for Hiring Trainees..	33
4	Vocational Automotive Instructors Must Have 7 Years Recent Experience.....	37
5	Vocational Education Classes Require a Minimum of 3 Hours Per Day in Shop.....	38
6	Vocational Students Must Select the Program.....	39
7	Vocational Automotive Skill Training Programs are 2 Years in Length, 11th and 12th Grades.....	40
8	Automotive Skill Training Programs are not Offered Prior to the 11th Grade.....	41
9	Industrial Arts is Offered in Grades 7 through 12...	41
10	Industrial Arts Provides Knowledge About a Number of Industrial Occupations.....	42
11	Industrial Arts Offerings are not Designed to Develop Pre-Employment Skills.....	43
12	Vocational Automotive Programs Require an Advisory Committee.....	44
13	Vocational Program Graduates Can Enroll in Most of Ohio's Public Colleges and Universities.....	45
14	Vocational Automotive Students are Trained to Acquire Entry-Level Skills.....	46
15	Dealers Prefer to Hire Graduates with a General Education Rather than a Vocational Automotive Graduate.....	50

Table		Page
16	Vocational Program Graduates are Usually Too Young and Lack Maturity.....	51
17	Vocational Training Should Begin After the Completion of High School.....	52
18	Automotive Students Should be Instructed in Only One Skill Area.....	53
19	Vocational Automotive Training Should be Conducted by Private Schools.....	54
20	Automotive Skill Training Should be Conducted by New Car Dealers.....	55
21	Skill Training Should be Conducted by Automobile Manufacturers.....	56
22	Dealers Would Not Employ a Vocational Graduate with Shoulder-Length Hair.....	58
23	Dealers Should Contact the School for Grades.....	59
24	Dealers Should Contact the Vocational Instructor for His Evaluation.....	60
25	Dealers Should Contact the School About Applicant's Attendance.....	61
26	Dealers Should Contact the School to Evaluate Applicant's Conduct.....	62
27	Dealers Should Contact the School if They are in Need of Additional Employees.....	63
28	One of Our Employees Represents the Automotive Industry on an Occupational Advisory Committee....	66
29	We Have Been Invited to View the Vocational Automotive Facilities at our Local School.....	67
30	Dealers Should be Invited to View the Facilities at Their Local Vocational School.....	68

Table	Page
31 The School Should Contact the Dealers if They Have Potentially Capable Employees.....	69
32 The School Does Contact Us When They Have Potentially Capable Employees.....	69
33 Dealers Should be Invited to Meet the Vocational Automotive Instructor.....	71
34 Dealers Should Advise the Schools on the Facilities Needed for a Quality Automotive Program.....	72
35 Dealers Should Have the Opportunity to Advise Instructors on Course Content.....	73
36 Schools Should Solicit Service and Repair Work from the General Public.....	74
37 Automobile Dealers Should Provide Vehicles for Students to Repair and/or Service.....	75
38 Dealers Should Provide Part-Time Employment to Enable Automotive Instructors to Keep Abreast of Their Trade.....	77
39 Dealers Should Contact Schools to Inform Them of Their Needs for Automotive Trainees.....	78
40 We Have Hired a Recent Graduate of the Vocational Automotive Skill Training Program.....	80
41 Methods Used to Locate Automotive Service and Repair Personnel.....	81
42 Dealers Would Prefer to Hire Those Recommended by Their Employees.....	83
43 Test Results of Those Completing a Vocational Program Should be Made Available to Employers...	84

Table		Page
44	All Applicants Should be Tested Before They are Employed.....	85
45	Dealers Should Offer Employment Based Solely Upon an Interview.....	87

CHAPTER I
INTRODUCTION

Background

The general public has become increasingly aware of vocational education with the passage of the Vocational Education Act of 1963 and the Amendments of 1968 and 1972. This legislation has caused a sincere interest among educators and the lay public to determine whether attendance, participation, and graduation from a vocational program is essential, beneficial and/or desirable for immediate employment after graduation in the student's chosen occupation.

One of the major problems faced by vocational trade and industrial educators is the public's apparent confusion and lack of information regarding the several program offerings. Because of this lack of information and/or confusion, some persons erroneously consider industrial arts education to be the same as vocational trade and industrial day-trade programs. This leads to further confusion when trying to evaluate the products of each of these programs. A number of factors have led to this confusion.

First, both trade and industrial education and industrial arts education have been frequently isolated in remote areas of the school

building, or placed in a separate facility. Second, the tools and equipment in each of these shops may appear comparable. Third, in many instances, the student's course identification may appear to be very similar. Fourth, in some states, other than Ohio, it is difficult to actually determine specific differences which exist between trade and industrial, and industrial arts education. Because of these factors, the following reports may not reflect the true measure of trade and industrial education.

A follow-up study of graduates by the U. S. Office of Education reported that "...80 percent of all graduates available for placement were placed in the specific occupation for which they completed training or in a related occupation."⁽¹⁾ In a later study Kaufman and Lewis stated that "...although vocational education was most useful for those finding jobs related to their training, less than half of the male graduates obtained jobs directly related to their training."⁽²⁾ Eninger in his nationwide study reported that: "A great majority of trade and industrial graduates go directly to work, 36 to 40 percent enter unrelated jobs."⁽³⁾ Lewis and

¹J. Kenneth Little, Review and Synthesis of Research on the Placement and Follow-Up of Vocational Education Students, (Columbus, Ohio: ERIC Clearinghouse, The Center for Vocational and Technical Education, February, 1970), p. 4.

²Ibid., p. 7.

³Ibid., p. 9.

Kaufman offer the following explanation:

The schools seem to be more liberal in defining related jobs. Apparently the criteria by which they judge themselves are less demanding than those used by others. This discrepancy in criteria may also contribute to inflexibility in that the schools are rating their own present efforts too high based on inadequate evidence. (4)

A recent study, not focusing specifically on trade and industrial education, questions the effect of all vocational education.

From the evaluations of vocational education, then, it appears that a very expensive form of education--costing perhaps 50-75% more than other high school curricula--has a very low utility. Only a small proportion of entry-level jobs for high school graduates require the specific training and skills offered by vocational education; vocational graduates more often than not take jobs for which they were not trained; their unemployment records are not better than other high school graduates, except those in the general curriculum; and their pay isn't better. (5)

The primary references for the above report were published between the years 1962 and 1967. The specific reference to vocational education

⁴Morgan V. Lewis and Jacob J. Kaufman, "The Role of the Secondary Schools in the Preparation of Youth for Work" (Paper presented to a session of the annual convention of the American Vocational Association, Denver, Colorado, December 8, 1966), p. 6.

⁵Elliott L. Richardson, Work in America: Report of a Special Task Force to the Secretary of Health, Education and Welfare (Cambridge, Massachusetts: The MIT Press, n.d.), p. 139.

neither meeting the needs of the student nor the needs of the employer appears to be compiled from a 1962 Stanford Research Institute Report. It should be noted that high school vocational education in California is comparable to the general education industrial arts program presently offered in Ohio. It would be prudent to note that three federal acts to develop and upgrade vocational education have been passed since this report was published.

A report published by the Ohio Advisory Council for Vocational Education in 1973 contradicts this previous report. The Ohio report states that employers rated vocational graduates higher than those from other curricula in such areas as entry level employment skills, technical knowledge, work habits, willingness to learn new skills, attitudes toward company or employer, and concerns for safety and productivity.⁽⁶⁾

The one facet of our society which should be best informed about the principles and practices of trade and industrial education is the consumers of the product--the employers of those who graduate from approved high school vocational trade and industrial programs.

In a telephone conversation (January 22, 1972), Harry F. Davis, Assistant Director of Vocational Education for Ohio, informed this writer

⁶Employers and Young Adults Look at Vocational Education, Ohio Advisory Council for Vocational Education, Columbus, 1973, p. 18.

that there were more auto body and fender and auto mechanic programs offered in Ohio than any other vocational trade and industrial program. A report filed with the federal government for fiscal year 1970-1971 stated that a total of 7,374 students were enrolled in both of these programs in Ohio.(7)

Automobile manufacturers have forecast that 110 million vehicles may be in use by 1975. The amount spent for automotive parts and service labor exceeds the cost of all cars sold each year.(8) Because of this anticipated growth, a suggestion is made that these program offerings be expanded.(9) This expansion should increase career opportunities for those interested in the automotive repair industry.

National averages indicate that there are 2.5 persons per car and 0.8 households per car in the United States.(10) In addition, 47.9 percent

⁷Harry F. Davis, private telephone conversation, January 22, 1973.

⁸"Career Opportunities in Automotive Service," Standards for Automotive Service Instruction in Secondary Schools (Detroit, Michigan: Automobile Manufacturers Association, Inc., 1965), p. 10.

⁹John Teeple and Berd J. Kenadjian, "The Implications of Job Opportunities in Transportation for Priorities in Vocational-Technical Education," A working paper (Washington, D. C. : U. S. Office of Education, U. S. Department of Health, Education, and Welfare, September, 1969), p. 26.

¹⁰1972 Automobile Facts and Figures (Detroit, Michigan: Motor Vehicle Manufacturers Association of the U. S., Inc., n. d.), p. 26.

of the world's passenger cars are in the United States. There are 800,000 businesses dependent upon motor vehicles and 13,300,000 persons employed in these industries.(11) Additional statistics indicate that highways account for ninety-eight (98.3%) percent of all trips.(12)

In a telephone conversation (March 1, 1973), Paul McDonald, National Manager of the General Motors Training Centers, stated that there is no shortage of mechanics, only a shortage of "qualified" personnel to service and repair automobiles.(13) His basis for this statement was the results of a recent national test administered to 13,512 mechanics. Of 8,113 who attempted to complete all five parts of the examination, 1,425 received passing grades.(14)

General Motors spends \$11.5 million annually to operate training centers across the country. The necessary training time to make a person employable, according to Mr. McDonald, is six to sixteen weeks. Because

¹¹Facts for Study (Detroit, Michigan: Automobile Manufacturers Association, n.d.), pp. 15-20.

¹²1972 Automobile Facts and Figures, p. 34.

¹³Private telephone conversation with Paul McDonald, March 1, 1973.

¹⁴Manpower (Washington, D.C.: U. S. Department of Labor, Manpower Administration, June, 1973), p. 25.

of the costs incurred, and the time involved in training new personnel, Mr. McDonald felt that the need for automotive service and repair trainees by General Motors was not being met by vocational education. (15)

Purpose of the Study

The success of a local vocational education program is ultimately determined by the employment of the graduates. Many attempts have been made to evaluate the programs through questionnaires returned by graduates or by employers of graduates. For the most part, these studies have not resulted in general criteria for describing a successful program.

Graduates of trade and industrial education programs experience varying degrees of success in finding employment. Theoretically the schools should be providing specific vocational programs for which there is a demand by that industry for trained employees. Data should have been developed through some realistic process which justifies the offering of the programs. A student entering a trade and industrial education program should have reasonable assurance of employment upon graduation, albeit this is not always the case. Follow-up studies of graduates of vocational programs indicate that as little as thirty percent, to as much as eighty percent of the graduates from all program areas were actually employed

in the occupation for which they were trained or one which was directly related.

Trade and industrial education programs must meet minimum standards established by the State Division of Vocational Education. Such standards pertain to minimum teacher qualifications, minimum time requirements for instruction, minimum facilities required, and other requirements which tend to build a quality program. If such standards do in fact build quality instruction and programs, why are graduates not fully successful in securing employment?

A possible answer to the question may be found in the fact that school representatives have made little effort to adequately explain the purpose of the vocational program offerings to those who could use the services of those who have completed a vocational trade and industrial program. Kaufman, Schaefer, et al., noted that "...both employers and union officials have had little or no contact with vocational programs in high schools, and tend to give hazy or uninformed answers about the adequacy of vocational education."¹⁶ Lewis contends that feedback and support are essential for successful placement.¹⁷ Little also concurs with this position by stating:

¹⁶Little, Ibid., p. 26.

¹⁷Wiley B. Lewis, Review and Analysis of Curricula for Occupations in Transportation (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, December, 1970), p. 18.

"The lack of well-developed placement programs may be a crucial weakness of many current programs of vocational-technical education."(18)

Because of this lack of communication between the educational institution and the ultimate consumer of the product, schools may not be training personnel adequately to meet the needs of potential employers. Another factor affecting the employment of those who have completed the programs may also be attributed to this lack of communication between potential employers and the educational institution: How much importance do potential employers place on such factors as grades, attendance, and appearance?

The purpose of this study is to determine whether new car dealers have been adequately informed, and, therefore, knowledgeable about vocational trade and industrial education. In addition, this study will determine how new car dealers want those desiring to enter the automotive trades to be prepared. Third, this study will determine what personal characteristics are deemed important to those seeking initial employment in the automotive service and repair industry. Finally, this study will determine if the lines of communication are open between the potential employer and the educational institution, and which group is assuming the responsibility for

¹⁸ Little, Ibid., p. 37.

maintaining this method of mutual assistance. In addition, this report will seek the answers to the following questions:

1. Do new car dealers know the requirements for an individual to teach in the vocational automotive skill areas?
2. Are new car dealers aware of the program requirements for those who have the desire to become automotive service and repair personnel?
3. Is the educational institution, or the new car dealer, accepting the responsibility for keeping the lines of communication open between themselves?
4. What is the selection process used by new car dealers to determine skill trainee acceptance?
5. What factors, other than training, influence a dealer relative to the acceptance of the application from a person who has completed a trade and industrial vocational automotive service and/or repair program?

Many of the guidelines which have influenced vocational education standards nationally were authored by Dr. Charles A. Prosser, the first National Director of Vocational Education. The theorems promulgated by Prosser provided direction for the establishment of teacher certification requirements, facilities and equipment, curriculum, funding, and student selection and preparation.(19)

¹⁹Charles A. Prosser and Thomas H. Quigley, Vocational Education in a Democracy (Revised ed.: Chicago: American Technical Society, 1957), pp. 217-232.

Significance of the Study

Vocational education has long been thought of as a dumping ground for those students who are underachievers in the college preparatory or the general education curriculum. Some elements of society consider vocational education to be but one method of keeping potential dropouts in school. Those who hold to this belief may make no effort to become better informed about vocational education.

One of the areas which may cause concern to vocational educators is a lack of identity. Just as some unrelated persons bear a strong resemblance to each other, industrial arts may appear to be vocational education. Because of this confusion, this study will seek to determine whether new car dealers are actually aware of the several differences which exist between trade and industrial day-trade programs and industrial arts education. These areas of concern include student selection procedures, time allotted to shop/laboratory experiences, and teacher qualifications.

This study will seek to determine the type of preparation sought by new car dealers for service and repair trainees, and if they contact the educational institution, or if they are contacted by a member of the school for the purpose of placement.

This study will also determine whether new car dealers are satisfied with the present preparation of automotive skill trainees, or whether they themselves, or the parent manufacturers would rather assume the total

burden of preparing and training service and repair personnel.

Finally, this study will determine which factors, other than training, are considered important to the new car dealers and become a basis for acceptance or rejection of those seeking initial employment as service and repair personnel.

Related Research

Even though vocational education at the high school level has been supported by the federal government since 1917, its most rapid growth has occurred after the passage of the Vocational Education Act of 1963 and the subsequent Amendments.

In just 5 years, 1965 to 1970, secondary school enrollments in vocational programs rose from 2.8 to 5.1 million; post-secondary enrollments increased from about 200,000 to over a million.⁽²⁰⁾

This rapid expansion has necessitated the creation of new programs and the enlargement of those programs which are presently being offered. Teeple and Kenadjian have suggested that, because of the need, auto service and repair programs should be expanded. To avoid the "manpower bottlenecks" which could arise with too many high school graduates in these

²⁰U. S. Department of Labor, 1972 Manpower Report of the President: New Perspectives on Youth Employment (Washington, D. C. : Government Printing Office, 1972), p. 93.

programs, the same authors suggest further expansion of post-secondary programs to raise the quality of instruction, widen student choices, and provide greater flexibility.(21)

Stuart has suggested additional factors which may explain the continued demand for auto repair and service trainees.

1. An increase in the number of automobiles (including a continual increase in the number of cars per family)
2. An increase in the complexity of autos which necessitate additional maintenance
3. A vast improvement in highway systems
4. An increase in the demand for commercial vehicle utilization
5. An increase in the driving age population.(22)

This information should indicate an additional demand for students who have completed vocational auto repair and service type programs. Yet, there is some evidence that some industrial representatives do not share this enthusiasm for vocational training.

The National Association of Manufacturers (NAM) report (1970) that high school vocational programs are less than satisfactory because

²¹Teeple and Kenadjian, Ibid., p. 26.

²²Stephen D. Stuart, "An Exploratory Study to Analyze New Skill Content in Selected Occupations in Michigan and the Mechanism for its Translation into Vocational Education Curricula, Final Report." (Columbus, Ohio: Battelle Columbus Laboratories, July, 1972), p. E-i.

they do not adequately prepare students for the occupational training needs of industry's manpower requirements.(23) Mueller, et al. (1969) reported that a vocationally-trained employee was no more proficient in learning a specific job skill than a person without this prior training.(24) Such findings would be related to the vocational education standards in the states studied.

Duis and Sanders (1968) stated that those who had completed a full-time high school or post-secondary vocational program, and were available for employment, "...80 percent were employed full-time, ..." (25) National samples and state and local studies indicate that a majority of students are getting jobs for which they were trained, or in a closely related field.(26)

²³Robert E. Wenig and William D. Wolansky, Review and Synthesis of Literature on Job Training in Industry (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, June, 1972), p. 42.

²⁴Ibid., p. 43.

²⁵J. Robert Warmbrod, Review and Synthesis of Research on the Economics of Vocational-Technical Education (Columbus, Ohio: ERIC Clearinghouse, The Center for Vocational and Technical Education, November, 1968), p. 35.

²⁶Lowell A. Burkett, "Latest Word from Washington," American Vocational Journal, December, 1972, p. 7.

Some reports are not as glowing in their praise of vocational education. Even though this occupational preparation enabled former vocational students to obtain employment, one report stated less than half of the male graduates were able to obtain employment in the field for which they were trained, or in a related field.(27) A national survey of high school vocational students revealed that only a quarter of them entered the occupation for which they had received training.(28)

Additional studies question whether vocational education has had any bearing upon the occupational success of those who have completed these programs.(29) Lewis and Kaufman accuse the schools of being too liberal in their definition of "related" occupations. These same authors further intimate that the criteria used by the schools to evaluate their success or failure is less demanding than that used by others.(30)

Previously completed studies indicate that a communications problems does exist between the wants and needs of industry and the

²⁷Little, Ibid., p. 7.

²⁸Patricia Marshal, "Vocational Education Today," Manpower, November, 1972, p. 6.

²⁹Warmbrod, Ibid., p. 36.

³⁰Lewis and Kaufman, p. 6.

preparation of vocational students. Perlman (1969) has suggested that: "...industry wants vocational education to change its role of training workers in a specific skill to one of training for a broad knowledge of industrial needs."(31)

An earlier study by Evans (1968) revealed that schools were not training their students for single occupations, but have "...gone so far toward breadth that in some schools vocational education is more like general education than are many 'general education' courses...."(32)

It is difficult to determine where the problem lies. Arnold (1969) reported that 287 employers from a total population of 294 employers would employ graduated vocational students "...if the programs offered...were the type needed."(33) Miles (1966) suggested that socio-economic background, previous home-life, number of dependents, and the manner in which a person dresses are factors that relate directly to employment

³¹Wenig and Wolansky, p. 47.

³²Rupert N. Evans, School for Schooling's Sake: The Current Role of the Secondary School in Occupational Preparation (Champaign, Illinois: Illinois University, June, 1968), p. 11.

³³Walter M. Arnold, Vocational, Technical and Continuing Education in Pennsylvania, A Systems Approach to State-Local Program Planning (Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, 1969), p. 440.

opportunities.(34) Kaufman, Schaefer, et al., have observed that neither employers nor union officials have had adequate contact with vocational high school programs, and "...tend to give hazy or uninformed answers about the adequacy of vocational education."(35) "If one tries to analyze industry's dissatisfaction with the product of vocational and technical education, there appears no common agreement as to what constitutes the problem."(36)

It appears from the findings reviewed that there has been little interaction between the employers and the vocational programs. The National Automobile Dealers' Association, the Automotive Trade Association, and the Independent Garage Owners of America have established apprentice training standards for auto mechanics, repairmen and painters. Even though these standards could be applied to vocational automotive programs, "...no standards were found which were established specifically for vocational education programs."(37)

³⁴Guy H. Miles, Final Report on Preliminary Phase: Effects of Vocational Training and Other Factors on Employment Experience (Minneapolis, Minnesota: North Star Research and Development Institute, April 30, 1966), p. 29.

³⁵Little, Ibid., p. 26.

³⁶Wenig and Wolansky, Ibid., p. 51.

³⁷Eiley Lewis, Ibid., p. 7-8.

Private vocational-technical schools strongly emphasize the placement function, and thrive upon excellent placement and other working relationships with business and industry.(38) "Few secondary schools conceive job placement as a built-in function."(39) Educational institutions and the automotive industry must become mutually involved with vocational education. Research has illustrated that employers who have favorable attitudes toward vocational programs are those most actively involved with those programs. "If this evidence is true, the crucial issue becomes one of finding a way of stimulating employers to participate actively in some phase of vocational education."(40)

Definition of Terms

The following terms are presented to enable the reader an opportunity to more properly understand this study. The majority of the terms presented are influenced by a publication of the American Vocational Association.

³⁸ Little, p. 36.

³⁹ Little, Ibid., p. 36.

⁴⁰ Little, p. 37.

Advisory Committee--A group of individuals knowledgeable about the field of automotive service and repair willing to advise educators regarding vocational programs.

Comprehensive High School--A secondary school which offers a diverse program to meet the needs, interests and abilities of the students.

Craft Advisory Committee--Same as Advisory Committee.

Curriculum--A series of instructional units which includes both theory and manipulative tasks designed to cover the instruction in either the automotive service area, or the automotive repair area.

Day-Trade Program--A course conducted for those regularly enrolled in secondary schools who wish to prepare for gainful employment.

Follow-Up Study--A survey to determine what occupations the graduates of vocational education programs have entered and followed since graduation.

Foreign Car Dealer--A dealership which specializes in the sales and service of those automobiles manufactured in a foreign country. These automobiles do not carry the name of any domestic manufacturer, and are usually not sold by those who sell automobiles manufactured in the United States. Some examples are: Toyota, Mazda, Mercedes-Benz, and Rolls Royce.

Industrial Arts Education--A program of instruction developed to aid in the understanding of the technical, consumer, occupational,

organization, social, historical, and cultural aspects of industry.

Experiences include experimenting, designing, constructing, evaluating, and the use of the tools and materials necessary to accomplish these goals.

Industrial Education--A generic term which applies to all types of education related to industry including industrial arts, trade and industrial, technical education, apprenticeship, and in-plant training.

Journeyman--A craftsman recognized and identified by his peers as competent to perform all of the work of an occupation satisfactorily.

Laboratory/Shop--An in-school arrangement of space, equipment and facilities necessary to instruct in the automotive trade areas.

Related Subjects--Courses of instruction in general or special subjects designed to strengthen the occupational competencies of the student.

Service Facility--The area in a new car dealership reserved for repairing or servicing automobiles. This may include, but is not limited to: car lifts, paint spray booths, wheel alignment areas, or other areas where shop work may be performed.

Technical Education--The branch of vocational education above the craftsman or skilled worker level, but not professional in nature. This person is generally considered a paraprofessional.

Technical High School--A high school whose curriculums are directed toward vocational subjects, as differentiated from academic objectives. Generally considered pre-engineering.

Trade--A skilled occupation which usually requires a period of apprenticeship as part of the learning process.

Trade and Industrial Education--Instruction planned to provide the student-learner with those skills, safety practices, judgment, technical knowledge, and related occupational knowledge necessary for entry-level employment in a skilled occupation.

Trade School--A school which offers instruction in occupational subjects only.

Vocational Curriculum--An organized sequence of learning experiences which enables a student to prepare for an occupation in which he has the interest and ability.

Vocational Education--A public training program designed to prepare individuals for gainful employment in their chosen occupations, or upgrading those already employed.

CHAPTER II

METHODOLOGY

Limitations

To limit the study, this researcher decided to include only those dealers engaged in selling and servicing new automobiles in Cuyahoga County, (Cleveland), Ohio, for the following reasons. First, there is a definite preference by students for automotive service and repair programs over other vocational trade and industrial offerings in Ohio. Because these programs are filled rapidly, many students who want this training cannot be accommodated, and must accept their second or third choice. Second, there has been a local and nationwide demand for persons with automotive skill training. Third, because of the size of most new car dealers in Cleveland, there is usually ample opportunity to secure employment. Fourth, Cuyahoga County is comparable to the national average with 2.3 persons per car and 0.8 households per car. Fifth, there are few, if any, automobile mechanic unions operating in the United States. The one union in Cleveland does not provide training facilities and functions primarily as a placement bureau for those seeking to change their employers. Because of this, there is no nationwide standard or training program to determine course content and/or levels of expertise.

This study will not consider such potential employment opportunities as service stations, independent garages, and used car dealerships for the following reasons. First, these potential employers generally do not employ large numbers of skilled personnel to service and repair automobiles. Second, many of these operators may be limited to minor repairs.

An analysis of the previously reviewed writings has indicated a dichotomy of opinion as to the acceptance or rejection of vocational program graduates by potential employers. Because of this divergence of opinion, a number of factors emerged which might influence the opinions of those responsible for employing these graduates.

One relevant factor which might prove to be significant was concerned with the specific knowledge about vocational day-trade automotive service and repair programs possessed by those responsible for employing these graduates. Another area of concern was to determine what factors these employers might use in selecting or rejecting potential employees. A third factor emerged which concerned the creation and maintenance of lines of communication between the new car dealer and the public educational institution. After these several factors had been identified, a search was instituted to determine what research had been attempted previously in these specific areas.

Even though this area appears to be well researched, the specific answers to these areas of concern were either not available, or were not

of recent origin. Therefore, the several factors identified led to the development of an instrument to determine the new car dealers' reactions to the several points in question.

The statements selected for use in the instrument were primarily influenced by those employed by Eninger.⁽⁴¹⁾ Also beneficial in the development of the instrument was an attitudinal instrument developed by the Pennsylvania State University, Department of Industrial Education.⁽⁴²⁾

A pilot study, using the instrument, was conducted. Ten randomly selected automotive new car dealers outside of Cuyahoga County, (Cleveland), Ohio, were chosen. A personal visit was made to each dealer with a request that the instrument be completed. The researcher remained on the premises while the questionnaire was being completed.

The Cleveland Automobile Dealers' Association (CADA) was contacted for their aid and assistance. Mr. James R. Garfield, II, Executive Vice President and Secretary, provided the writer with the 1973 membership roster. This roster contained the name of the dealership,

⁴¹ Max U. Eninger, The Process and Product of T&I High School Level Vocational Education in the United States: The Product (Pittsburgh: American Institutes for Research, Sept., 1965), card 3 and 4 (Microfiche).

⁴² Attitudinal Instrument, "Vocational Trade and Industrial Education Attitude Scale." (University Park, Pennsylvania: The Pennsylvania State University, Department of Industrial Education, n.d.)

address, and the names of those owning the dealership. The dealers were categorized according to the make of the automobile sold and serviced. Mr. Garfield also made it a point of informing this writer that almost ninety (90%) percent of all new car dealers in Cuyahoga County belonged to this group.

The mailing list of the C. A. D. A. was composed of the following new car dealers: American Motors, 5; Buick, 10; Cadillac, 3; Chevrolet, 17; Chrysler-Plymouth, 9; Dodge, 10; Ford, 17; Lincoln-Mercury, 8; Oldsmobile, 9; Pontiac, 11; Imported Cars, 9; and, Volkswagen, 6. The questionnaires, with a stamped, self-addressed return envelope, were sent to the owners of the several agencies.

The recipient of the letter was requested to forward the instrument to the person responsible for employing automotive service and repair personnel. On the cover of the instrument, the following legend was included: "To be completed by the person responsible for initial employment."

The C. A. D. A. membership list was compared with the Yellow Pages of the Cleveland Telephone Directory. A total of seventeen (17) new car dealers operating in Cuyahoga County who were non-members of the C. A. D. A. were identified. Questionnaires, with a stamped, self-addressed envelope were also sent to these dealers.

Each of the groups was given a letter and a number for identification purposes. This code was placed under the stamp of the return envelope. This enabled the writer to identify the sender of the response, but was intended for no other purpose.

After approximately two weeks, all dealers who did not respond to the first mailing were contacted by phone. Seven (7) members of the Cleveland Automobile Dealers' Association refused to participate. Only one (1) non-C.A.D.A. member refused to participate. This percentage of refusal represented 5.26 percent for C.A.D.A. members and 5.88 percent for non-C.A.D.A. members.

Several of the dealers contacted by phone stated that though they received and opened all of the mail, they had not received the instrument. In addition, others stated that business pressure was too great to allow them sufficient time to complete the questionnaire.

A total of forty-five (45) additional questionnaires with a stamped, self-addressed envelope were sent to C.A.D.A. members. Five (5) additional questionnaires with a stamped, self-addressed envelope were sent to non-C.A.D.A. members.

The total population of 114 Cleveland Automobile Dealers' Association members, less one (1) who no longer was operating, returned a total of seventy-three (73) instruments. This response amounted to approximately sixty-five (64.6) percent return.

Seventeen (17) non-C. A. D. A. members comprised this population. Returns were received from ten (10) of these dealers, a response of almost fifty-nine (58.8) percent.

Statistical Analysis

The first section of the instrument asked several questions to help determine new car dealers' knowledge of vocational trade and industrial day-trade education. The respondents answered the questions with a response of "Did Know," or a response of "Did Not Know." The responses were tallied and a percentage was recorded.

The balance of the instrument employed a five-point Likert Scale: Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. Numerical values of 5=Strongly Agree, 4=Agree, 3=Undecided, 2=Disagree, and 1=Strongly Disagree were assigned to the responses for statistical purposes. This does not imply that the difference between Strongly Agree and Agree is the same as the difference between Undecided and Disagree. Because no unit of measurement exists which permits legitimate statements of the difference, an ordinal scale was employed.

This research does not deal with matched pairs, or two measures for the same individuals, therefore, the researcher could not compute a correlation coefficient. Consequently, the researcher cannot assume a relationship between the data in the two groups. Because of this lack of specific

relationship between the group data, a "t" model is suggested.

The primary function of a "t" test is to determine whether the mean performance of the two groups are significantly different.(43) In addition, the "t" test is used to determine just how great the difference between the two means must be in order for it to be judged significant. Unfortunately, the "t" statistic does not follow the normal curve distribution unless n is larger than 25.(44) The two sources which cause this fluctuation are the mean and the standard deviation.(45)

There are three elements which determine which of the "t" models is most appropriate. These factors are: differences between the means of the two groups; group variability; and sample size.

Because neither the variance nor the number of samples is equal, the following separate variance "t" model is suggested by Popham. The smaller mean is subtracted from the larger mean. This sum is divided by the square root of the following computation. The separate variances are

⁴³W. James Popham, Educational Statistics (New York: Harper and Row Publishing, 1967), p. 129.

⁴⁴Paul A. Games and George R. Klare, Elementary Statistics: Data Analysis for the Behavioral Sciences (New York: McGraw-Hill Book Co., 1967), p. 302.

⁴⁵Ibid., p. 301.

divided by their respective populations and then added. (46) This "t" ratio will be computed at the .05 level of significance.

The last page of the instrument was composed of demographic data, including title of the person filling out the instrument, age of the respondent, number of years this person has been responsible for employing service and repair personnel, and methods used to locate service and repair personnel. This information was recorded and a percentage computed.

Because the original response was too small, it was suggested that those who did not respond to the mailed instrument be contacted to determine whether the non-respondents were demographically representative. Personal telephone calls to twenty-three (23) randomly selected C.A.D.A. members resulted in twenty (20) additional responses. Telephone calls to seven (7) non-C.A.D.A. members brought an additional five (5) responses. The total response was eighty-two (82.3) percent for C.A.D.A. members and eighty-eight (88.24) percent for non-C.A.D.A. members for this demographic information.

To determine whether the means of the mailed returns were the same as the means collected using the telephone, a separate variance "t" model was used. The four statements under investigation indicated no statistically significant difference at the .05 level.

⁴⁶Popham, p. 145.

CHAPTER III

DEMOGRAPHIC ANALYSIS OF NEW CAR DEALERS

Demographic Analysis

Most new car dealers in Cuyahoga County, (Cleveland), Ohio, are members of the Cleveland Automobile Dealers' Association. According to Mr. James R. Garfield, II, Executive Vice President and Secretary of the Cleveland Automobile Dealers' Association, more than ninety (90%) percent of all new car dealers in Cuyahoga County belong to this organization.

Fifteen (15) members of the C. A. D. A. sell automobiles manufactured in a foreign country, and this accounts for approximately thirteen (13%) percent of their membership. The reverse is true for the non-C. A. D. A. members who list only two new car dealers who sell automobiles manufactured in the United States, and of the other fifteen dealers identified, approximately eighty-eight (88%) percent sell automobiles manufactured in foreign countries. It should be noted that the writer identifies a foreign manufactured automobile as one that is not given a name associated with a domestically manufactured automobile. Some examples would include Volkswagen, Saab, and Mazda.

The occupational titles of those responding differed between the C. A. D. A. group and the non-C. A. D. A. group. The non-C. A. D. A.

members were composed of either owner-managers, or service managers.

TABLE 1
TITLE OF RESPONDENT

	CADA	Percentage	Non-CADA	Percentage
Owner	25	34.25		
Owner/Manager	12	16.44	6	60.0
Service Manager	27	36.99	4	40.0
Other	9*	12.32		

*General Manager, Office Manager, Service Director (3),
Vice President and General Manager, Business Manager,
Vice President, Sales Manager.

The response from the C. A. D. A. members in Table 1 indicates that more than one-third (34.25) percent of those replying are owners. Because of their response to the instrument, it might be of interest to determine how their function differs from those who replied, "Owner/Manager." This may indicate that they have only provided the money necessary to maintain the dealership without providing any specific management service to the organization, even though they admitted that they were responsible for the employment of service and repair personnel by completing and returning the research instrument.

Of additional interest, though not pertinent to the study, is the response from "Service Directors" and "Service Managers." It might

be of some importance to determine how the duties and responsibilities of a service manager differ from those of a service director.

The ages of those responsible for employing service and repair personnel may be of some importance. It is generally accepted that the majority of older persons are less liberal and more conservative. Also, this older group might be more familiar with manual training, or industrial arts because of their previous educational experiences. This could also tend to make them less knowledgeable about the vocational offerings available to the students presently enrolled in secondary schools.

TABLE 2
AGE OF RESPONDENTS

	20-24	25-29	30-39	40-49	50-59	60 Years/Over
CADA	1	6	22	25	18	1
Percent	1.4	8.2	30.0	34.3	24.7	1.4
Non-CADA		1	2	3	4	
Percent		10	20	30	40	

The C. A. D. A. members filled every cell in Table 2. The majority of respondents in both groups are at least 40 years of age, and may tend to be conservative.

Of possibly greater importance than the ages of the respondents would be the number of years the individual has been responsible for hiring

service and repair personnel.

Table 3 indicates that the majority of the non-C. A. D. A. members who responded to the instrument have been responsible for the employment of service and repair personnel for less than seven (7) years, while the majority of the C. A. D. A. members have been entrusted with this responsibility for more than seven (7) years.

TABLE 3
NUMBER OF YEARS RESPONSIBLE FOR HIRING TRAINEES.

	1 or Less	1-3	4-6	7-12	13-18	Over 18
CADA	5	10	8	17	13	20
Percent	7	14	11	23	18	27
Non-CADA	2	1	3	1	1	2
Percent	20	10	30	10	10	20

The purpose of the preceding section is to provide some knowledge about the demographic background of those responsible for employing service and repair personnel. It is felt that this knowledge is essential to the understanding of the balance of this report and to graphically illustrate that the majority of the respondents are not neophytes to the automotive industry.

Knowledge of Trade and Industrial Education

This section of the instrument was developed to determine what new car dealers actually know about the day-trade automotive service and repair programs. In addition, this segment was included to determine if those persons responding to the instrument were actually aware of the differences which do exist between those programs which prepare students for entry-level employment and those programs which are exploratory in content.

What is trade and industrial education? Those directly associated with these programs know that they are designed for job preparation. In schools where trade and industrial offerings are in the minority, industrial arts may be confused with this job preparation curriculum. Unless persons are presented with the specific differences, they may be unable to actually separate these two program offerings.

The present comprehensive high school was a merger of the academic and the vocational high schools, which were called technical or trade high schools earlier in this century. This merger provided greater educational offerings in one location. Additionally, this evolution led to the creation of three program offerings: academic, vocational, and general education.

The comprehensive high schools offer academic programs for those who have decided upon a career requiring additional preparation at a college or university. The vocational program meets the needs of those who have made a career choice requiring entry-level skills. The general

education curriculum was created to meet the needs of those students unable to meet the requirements of the academic course offerings, not a commitment to a specific occupational goal.

One of the problems which may exist for trade and industrial education is the securing of a separate and distinct identification from similar forms of education. There are a number of differences and similarities which do exist to compound this problem. First, the course description of an industrial arts program and a vocational trade and industrial offering may appear to be the same. Second, both programs in the past were usually housed in the basement, or in a separate area away from the rest of the school population. Third, the equipment may be the same, or similar, and only those familiar with the actual requirements of the industry may not be confused. Fourth, some students dissatisfied with the regular offerings of the school may select a vocational program offering, or may be placed in a similar general education program.

Instructor Qualifications

The differences which do exist may be more subtle and not as easily recognizable to those not actually engaged in vocational education. In Ohio, vocational trade and industrial instructors are required to have a minimum of seven (7) years recent experience in the trade they are employed to teach. Because of the shortage of qualified industrial arts instructors in

recent years, many persons were recruited from industry to teach specific subjects. In comprehensive high schools, some academic teachers not being aware of the difference, erroneously assume that those teaching in the shop/laboratory areas to be either all vocational, or all industrial arts instructors.

Prosser's Seventh Theorem states:

Vocational education will be effective in proportion as the instructor has had successful experience in the application of skills and knowledge to the operations and processes he undertakes to teach. (47)

Not only does this imply that a teacher cannot teach what he does not know, but the instructor's experience must be recent and considered successful because of this employment experience.

One of the most important factors used in Ohio to evaluate an applicant for a vocational teaching position is the number of years employed in that occupation.

It is interesting to note in Table 4 that seventy (70) percent or more of the potential employers responding to the instrument were not aware of this basic requirement for teaching a vocational day-trade subject.

⁴⁷ Charles A. Prosser and Thomas H. Quigley, Vocational Education in a Democracy (Revised ed.: Chicago: American Technical Society, 1957), p. 223.

TABLE 4

VOCATIONAL AUTOMOTIVE INSTRUCTORS MUST HAVE
7 YEARS RECENT EXPERIENCE

	Did Know	Percent	Did Not Know	Percent
CADA	21	28.76	52	71.24
Non-CADA	3	30.00	7	70.00

Daily Class Time

Industrial arts offerings in the high school provide between five and ten hours of instruction per week. The high school day-trade programs require a minimum of three hours per day in the shop/laboratory. This is at least one-third more than is offered to those enrolled in the general education program of industrial arts.

One of the major selling points of vocational trade and industrial education is that the student can spend a minimum of three hours of uninterrupted time per day in acquiring the skills necessary to gain entry into the occupation of his choice.

Prosser's Eighth Theorem implies that it is important for the individual to be prepared to meet the basic employment requirements.⁽⁴⁸⁾ To acquire the necessary manipulative skills and technical knowledge

⁴⁸
Ibid., p. 223.

requires considerable preparation which relates to the length of time allotted to this instruction.

TABLE 5
 VOCATIONAL EDUCATION CLASSES REQUIRE A
 MINIMUM OF 3 HOURS PER DAY IN SHOP

	Did Know	Percent	Did Not Know	Percent
CADA	28	38.36	45	61.64
Non-CADA	3	30.00	7	70.00

Knowledge of the time requirements for vocational programs is one method to distinguish vocational program graduates from industrial arts graduates. This knowledge may be important when making the final selection before employment. It should be noted that more than one-half of those responding in each group were not aware of this requirement.

Vocational Student Selects

Vocational education is a specific program, as is the college preparatory program. In either event, the student must select the program. This selection process is based upon the interests, abilities, and aptitudes of the student.

One of the major selling points of vocational education has been that no one is forced, or required, to enter one of the program offerings. It

should be noted that in many instances, the student who is enrolled in the general education curriculum and is not receptive to the academic offerings, or one who has not been able to make a career choice is frequently scheduled into one of the industrial arts offerings.

TABLE 6
VOCATIONAL STUDENTS MUST SELECT THE PROGRAM

	Did Know	Percent	Did Not Know	Percent
CADA	57	78.08	16	21.91
Non-CADA	7	70.00	3	30.00

It may be observed in Table 6 that almost one-quarter (21.91%) of the C. A. D. A. members and thirty (30%) percent of the non-C. A. D. A. members were not aware of this option.

Vocational Program Length

The several vocational service areas offer programs of varying lengths of time. Trade and industrial day-trade programs for the automotive service and repair occupations are two years in length. The length of time spent in an industrial arts program may vary from one semester to two years generally in a number of different experiences.

The findings in Table 7 would indicate that more than one-third of the C. A. D. A. respondents, and almost one-third of the non-C. A. D. A.

TABLE 7

VOCATIONAL AUTOMOTIVE SKILL TRAINING PROGRAMS ARE 2
YEARS IN LENGTH, 11th AND 12th GRADES

	Did Know	Percent	Did Not Know	Percent
CADA	44	60.27	29	39.73
Non-CADA	7	70.00	3	30.00

respondents were not aware of the length of time a vocational student must spend in the program.

As reported previously, the typical industrial arts program may range from one (1) semester to two (2) years in length. In most instances, credit will be awarded to those who successfully complete any part of the program. In contrast, credit cannot be given to the vocational student who does not complete the entire two-year program.

Vocational Program Restriction

Because the automotive skill training programs prepare the student to enter the occupation of his choice after graduation, these programs are not available prior to the eleventh (11th) grade.

Table 8 would indicate that the respondents were not aware that these types of programs are not offered prior to the eleventh (11th) grade. This tends to indicate that the respondents have confused vocational education with industrial arts education.

TABLE 8

AUTOMOTIVE SKILL TRAINING PROGRAMS ARE NOT
OFFERED PRIOR TO THE 11th GRADE

	Did Know	Percent	Did Not Know	Percent
CADA	26	35.62	47	64.38
Non-CADA	3	30.00	7	70.00

Industrial Arts Programs

Industrial arts programs are offered from grade seven (7) through grade twelve (12). The primary function of industrial arts is to provide the student with the opportunity to determine whether he has the ability and aptitude to pursue a given occupation. Additionally, industrial arts programs provide the student with an opportunity to explore and develop avocational interests.

TABLE 9

INDUSTRIAL ARTS IS OFFERED IN
GRADES 7 THROUGH 12

	Did Know	Percent	Did Not Know	Percent
CADA	29	39.73	44	60.27
Non-CADA	5	50.00	5	50.00

The response in Table 9 would indicate that at least half of the non-C. A. D. A. members, and more than half of the C. A. D. A. members were not aware of the scope of industrial arts education.

Industrial Arts Content

Industrial arts programs provide the student with an opportunity to explore many different occupations. Some basic skills in the use of the tools and equipment may result from this exposure, but it is not intended to develop skills equal to those required by an individual seeking admittance to a specific occupation.

TABLE 10

INDUSTRIAL ARTS PROVIDES KNOWLEDGE ABOUT
A NUMBER OF INDUSTRIAL OCCUPATIONS

	Did Know	Percent	Did Not Know	Percent
CADA	39	53.42	34	46.57
Non-CADA	5	50.00	5	50.00

Tables 10 and 11 indicate that the dealers are confused as to the purposes of trade and industrial offerings and industrial arts offerings. Even though more than half knew that industrial arts provides knowledge about a great number of skills, they were not aware that this same program offering was not developed to provide the student with occupational skills.

TABLE 11
 INDUSTRIAL ARTS OFFERINGS ARE NOT DESIGNED
 TO DEVELOP PRE-EMPLOYMENT SKILLS

	Did Know	Percent	Did Not Know	Percent
CADA	26	35.62	47	64.38
Non-CADA	2	20.00	8	80.00

Advisory Committees

The individual who leaves his occupation to become an instructor has acquired the skills and technical knowledge of a skilled craftsman. Because of the technological advancements made in most industries, it is almost impossible for an individual to remain current in his occupation without the aid and assistance of those performing these new skills daily. Not only must these newer skills and trade knowledge be taught to those interested in entering the occupation, the instructor must also possess them. With this knowledge, the state of Ohio requires that every day-trade and industrial program be assisted by an occupational or craft advisory committee.

In addition to providing information to the instructor, advisory committees may provide additional services to the school. One of the supplemental benefits includes providing work opportunities for graduates. In addition, some dealers provide engines and other component parts to further enhance the student's opportunity for acquiring the essential elements of the occupation.

TABLE 12

VOCATIONAL AUTOMOTIVE PROGRAMS REQUIRE
AN ADVISORY COMMITTEE

	Did Know	Percent	Did Not Know	Percent
CADA	27	36.99	46	63.01
Non-CADA	1	10.00	9	90.00

Because of the requirement for occupational advisory committees, it is interesting to note that more new car dealers are not aware of this possible opportunity for community involvement. More enlightening is the possibility that the majority of the respondents have not been requested by a school representative to provide service to their community in this capacity. The response would also indicate that very few of the non-C.A.D.A. members have been asked to serve in this capacity. These responses could also indicate that many of the respondents are too small, as may be the case with the non-C.A.D.A. members, to permit them the time to become involved, or they are not interested in performing this time-consuming task for their benefit and the benefit of their community.

Future Educational Opportunities

Some individuals have equated most forms of industrial education with individuals who are not capable of academic achievement. Vocational education was never designed to be a "dumping ground" for those less

academically talented. These programs were designed to meet the needs of those students who exhibited the desire and possessed the ability to succeed in their chosen occupation.

The college preparatory program has been designed to prepare students to meet the academic requirements of most colleges and universities in the nation. Most graduates of Ohio's secondary schools can enroll in a community college, and some selected four-year colleges and universities in the state.

TABLE 13

VOCATIONAL PROGRAM GRADUATES CAN ENROLL IN MOST
OF OHIO'S PUBLIC COLLEGES AND UNIVERSITIES

	Did Know	Percent	Did Not Know	Percent
CADA	20	27.40	53	72.60
Non-CADA	2	20.00	8	80.00

In the past, industrial arts programs may have been considered as a "dumping ground" since this program was frequently the only place for the less academically talented student. The response from Table 13 would indicate that less than one-third of the respondents were aware of the vocational program graduate's opportunity to enroll in most of Ohio's public colleges and universities.

Vocational Education Goal

The primary objective of vocational education is to provide the student with the skills, knowledge, safety judgments and technology to gain admittance and advance in his chosen occupation. With the latest technological advances made in most industries, especially the automotive industry, those less talented academically could not hope to acquire the skills necessary to achieve the much needed entry-level skills.

Many persons may erroneously equate the entry-level skills of the trade and industrial graduate with the skills learned in a lifetime of experience in a given occupation.

TABLE 14

VOCATIONAL AUTOMOTIVE STUDENTS ARE TRAINED TO ACQUIRE ENTRY-LEVEL SKILLS

	Did Know	Percent	Did Not Know	Percent
CADA	53	72.60	20	27.40
Non-CADA	6	60.00	4	40.00

The majority of those responding would indicate that they were aware of the primary objective of vocational education. It may be observed that forty (40%) percent of those who do not belong to the C. A. D. A. and more than one-quarter of the C. A. D. A. members were not aware of the primary goal of vocational education.

The response to the questions in this chapter would indicate that most respondents were very poorly and inadequately informed about vocational trade and industrial education programs for those interested in the automotive service and repair occupations.

CHAPTER IV
PREPARATION FOR EMPLOYMENT OF AUTOMOTIVE
SERVICE PERSONNEL

Most of Ohio's schools provide the student with three educational options: college preparatory programs, vocational education programs, and a general education curriculum. Those supporting Career Education Programs are committed to eliminate general education programs, and provide the student with the option of enrolling in college preparatory programs, or vocational education programs.

Each of these options permit the majority of high school graduates the opportunity to enroll in most of Ohio's public colleges and universities. The college preparatory curriculum has been designed to meet the stringent entrance requirements for most colleges and universities in the nation. This program has been developed to aid the student who has made a professional career choice which requires college preparation.

Vocational education programs have been developed to meet the needs of those students who have made a career choice in an occupation which does not require further education and/or training for entry-level employment. Trade and industrial education is specifically designed to

meet the needs of those students who have chosen a trade or industrial occupation.

The general education curriculum is usually considered to be a watered-down college preparatory program. This high school offering was developed to meet the needs of those who want a less stringent program. Some persons justify this offering because it provides general knowledge and training, and does not "lock" a person into making an occupational choice. Former U. S. Commissioner of Education, Sidney P. Marland, has referred to this program as educational "pap." Former Governor Rhodes has said that the general education program leads to general unemployment. (49)

Preparation for Employment

The value of high school vocational education is of vital concern to many facets of our society. Taxpayers are anxious to know whether their money is being wasted. Parents and students are concerned about employment after completing the vocational program. Those responsible for directing vocational programs are interested in the results of the training, and whether the programs should remain, or be altered. There is only one segment of our society which can effectively answer these

⁴⁹ James A. Rhodes, Alternative to a Decadent Society (New York: Howard W. Sams and Company, 1969), p. 9.

questions--the potential employer of those who complete the vocational programs.

Preference for Vocational Graduates

Employers were asked to give their opinion of the potential employee who has been prepared through general education compared with someone who has graduated from a vocational automotive program.

TABLE 15
DEALERS PREFER TO HIRE GRADUATES WITH A GENERAL
EDUCATION RATHER THAN A VOCATIONAL
AUTOMOTIVE GRADUATE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA		1	3	56	13
Non-CADA		1		8	1

*The obtained value of t was .045, which is not significant at the .05 level.

The measures of central tendency in Table 15 are all located in the "Disagree" column. This would indicate that dealers prefer to hire vocational automotive graduates rather than those without specific job preparation.

Graduates Lack Maturity

Some individuals who oppose vocational high school programs base their opinion on the fact that high school students elect to enter vocational programs in the tenth grade. These individuals contend that the student is too young to make an intelligent choice, and therefore lacks maturity. It is also contended that these same students bring this lack of maturity on to the job site.

TABLE 16

VOCATIONAL PROGRAM GRADUATES ARE USUALLY
TOO YOUNG AND LACK MATURITY

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	2	12	16	36	7
Non-CADA		1	3	6	

*The obtained value of t was .015, which is not significant at the .05 level.

Even though some respondents from both groups indicated that the vocational graduate lacks maturity and may be too young, the majority indicated in Table 16 that they do not hold this opinion.

Preparation After High School

If the student is lacking in maturity because of his youth, then it might appear that the new car dealer would want this individual trained after the completion of high school.

TABLE 17
VOCATIONAL TRAINING SHOULD BEGIN AFTER
THE COMPLETION OF HIGH SCHOOL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	3	10	16	36	8
Non-CADA	1	2	2	3	2

*The obtained value of t was .072, which is not significant at the .05 level.

Table 17 would indicate that the dealers who responded do not feel that vocational training should begin after high school. Additionally, the response appears to support the findings related in Table 16.

Trained in Only One Area

The vocational automotive service and repair program offerings in Ohio are explicit in that the student should be prepared for one occupation, not a "cluster" of related occupations. Ohio's rigid stand in opposition to those who support the cluster approach is based on Prosser's Twelfth Theorem.

For every occupation there is a body of content which is peculiar to that occupation and which practically has no functioning value in any other occupation. (50)

This stand by Ohio would eliminate the acquisition of knowledge not needed by the student, and would permit him the opportunity to devote his time and energies in gaining the knowledge, safety judgments, and skill necessary to gain and remain employed in his chosen occupation.

TABLE 18
AUTOMOTIVE STUDENTS SHOULD BE INSTRUCTED
IN ONLY ONE SKILL AREA

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	14	35	1	19	4
Non-CADA	2	5	1	2	

*The obtained value of t was .11, which is not significant at the .05 level.

Even though many respondents want an employee to possess a multiplicity of related skills, the majority would appear to prefer to have the new employee proficient in only one of the service and/or repair areas.

⁵⁰Prosser and Quigley, *Ibid.*, p. 227.

Trained in Private Schools

Those desiring employment as automotive service and repair personnel are afforded other options in learning their trade. In addition to the high school vocational program offerings, the interested individual may pay the necessary tuition and attend a proprietary school.

TABLE 19
VOCATIONAL AUTOMOTIVE TRAINING SHOULD BE
CONDUCTED BY PRIVATE SCHOOLS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA		13	26	30	4
Non-CADA		1	4	4	1

*The obtained value of t was .077, which is not significant at the .05 level.

Table 19 would indicate that there is no clear-cut preference for training in a proprietary school for the learning of those skills and trade knowledge necessary to become employed in the automotive trades. The response would indicate that at least half of the new car dealers are not convinced that training in a private school is most beneficial.

Trained by Dealers

The most expensive method for dealers would be for them to provide the necessary facilities and equipment to train individuals for employment on their own premises.

TABLE 20

AUTOMOTIVE SKILL TRAINING SHOULD BE
CONDUCTED BY NEW CAR DEALERS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	3	13	12	45	
Non-CADA		5	1	3	1

*The obtained value of t was .257, which is not significant at the .05 level.

Even though training in certain procedures must be expected in individual shops, this method could prove to be very costly to the small dealer. The significance of this table is that more than one-half of the non-CADA members would agree to this type of employment preparation, and more than one-half of the CADA members would not approve of this type of employment preparation.

Trained by Manufacturers

An additional option to obtaining skilled employees for the individual dealerships could be provided by automobile manufacturers. At present

many manufacturers provide facilities for the purpose of upgrading the present employees of their dealerships. A change in the curriculum would require additional facilities, equipment and supplies for those interested in this career area.

TABLE 21
SKILL TRAINING SHOULD BE CONDUCTED BY
AUTOMOBILE MANUFACTURERS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	8	25	18	18	4
Non-CADA		4	4	2	

*The obtained value of t was .004, which is not significant at the .05 level.

The response to Table 21 is indeed interesting. An individual trained at a manufacturer's school would be trained in the use of the latest equipment and learn the best procedures in performing the various operations. The major criticism of this type of training might be that the trainee would be proficient in repairing only one make of automobile, and not be aware of the differences which may exist in other makes. At present, most new car manufacturers maintain schools to upgrade and retrain mechanics to use the latest equipment and supplies to repair automobiles presently in use, and very little in the actual preparation of new employees.

With the dichotomy of responses recorded in Tables 19, 20, and 21, it would appear that the public high school vocational programs which prepare youth to enter the automotive trades are meeting the needs of this industry.

Personal Characteristics

In addition to specific job preparation, there are other factors which might influence an employer. These factors should not be overlooked as they can benefit the instructor who is preparing his students for employment, and they should be of benefit to the student who has completed his training and is seeking employment.

Employers may be influenced to accept or reject applicants for various reasons which may have no direct bearing on the quality or quantity of work which the student is capable of performing. One of the arbitrary practices employed in the past related to hair color. This belief assumed that every person with red hair possessed a violent temper. Even though race, religion, and nationality may no longer prevent a person from gaining employment, it is impossible to control an employer's thinking or opinions.

Hair Length

Recently, hair length has been equated occasionally with the drug and hippie culture. New car dealers were asked whether they would employ vocational automotive graduates with shoulder-length hair.

TABLE 22
 DEALERS WOULD NOT EMPLOY A VOCATIONAL GRADUATE
 WITH SHOULDER-LENGTH HAIR

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	8	7	8	42	8
Non-CADA			1	7	2

*The obtained value of t was .31, which is not significant at the .05 level.

Even though one respondent stated that the safety factor was paramount in his refusal to consider this person for employment, the majority of the dealers responding to this question indicated that they would employ a graduate with long hair. A number of relevant factors may be attributed to this reasoning.

First, longer hair styles appear to be more acceptable to the community as evidenced by the styles worn by influential members of the business community. Customer contact with service and repair personnel is usually kept to a minimum because of safety and insurance reasons. Also, safety may no longer be a major factor for those following newly established government rules and guidelines which reportedly establish clothing and grooming regulations.

Grades

Most institutions of higher learning place great emphasis upon high grades. The question which naturally follows is: Do employers emphasize grades, or in any way place great faith in using grades as a criterion for employment?

TABLE 23

DEALERS SHOULD CONTACT THE SCHOOL FOR GRADES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	18	47	5	2	1
Non-CADA	1	6	1	2	1

*The obtained value of t was .131, which is not significant at the .05 level.

Some people have expressed the opinion that academic achievement is of importance only to those who plan to further their education. Table 23 indicates that the majority of dealers from both groups feel that they should contact the school to learn about the grades of applicants.

Instructor's Evaluation

The person most knowledgeable about a student's performance in his chosen automotive trade area would be his vocational instructor.

TABLE 24
 DEALERS SHOULD CONTACT THE VOCATIONAL INSTRUCTOR
 FOR HIS EVALUATION

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	20	44	8	1	
Non-CADA	3	5		2	

*The obtained value of t was .065, which is not significant at the .05 level.

The qualified vocational instructor, in addition to instructing the student, spends a minimum of three hours per day with this individual. The response would indicate that a preponderance of those responding agree that dealers should contact the instructor for his evaluation.

Attendance

Attendance is a problem which can cause loss of income to any business establishment, and is a concern to many schools. This can be an additional hardship for the vocational student who is not present during the demonstration of certain service and repair areas. Of major importance is the belief that habits acquired in youth may be difficult to overcome.

Service industries, such as the automotive service and repair industry, are especially vulnerable to poor attendance. In addition to the loss of funds suffered by the dealer for work not completed, the dealer may

also lose the customer's good-will.

TABLE 25
DEALERS SHOULD CONTACT THE SCHOOL
ABOUT APPLICANT'S ATTENDANCE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	23	45	3	2	
Non-CADA	3	5		2	

*The obtained value of t was .319, which is not significant at the .05 level.

An almost unanimous response indicates that dealers feel that before employing an individual, the school should be contacted for the attendance record of the applicant.

Conduct

Of vital concern to any industry is the conduct of the employee. Some reports have indicated that most employees who are released from their places of employment is not based upon poor workmanship. The primary reason now given is that the employee cannot establish and maintain congenial relationships with other employees and supervisors. This type of problem could, especially in the case of an auto dealership where employees are visible to the customer, involve the customer.

TABLE 26

DEALERS SHOULD CONTACT THE SCHOOL TO
EVALUATE APPLICANT'S CONDUCT

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	17	48	5	3	
Non-CADA	3	4		2	1

*The obtained value of t was .137, which is not significant at the .05 level.

Responses reported in Table 26 indicate that the majority of those responding are indeed interested in the potential employee's conduct in school.

Dealers Communicating with Schools

Dealers were asked their opinion concerning contacting the schools if they were in need of additional employees.

Eighty (80%) percent of the non-CADA members and a similar figure (83.56%) of the CADA members indicated that dealers in need of additional personnel should contact the school to determine the availability of potential employees.

The responses recorded in this chapter would indicate that the majority of dealers are satisfied with the preparation vocational automotive students are receiving. It would also appear that they are interested in

TABLE 27

DEALERS SHOULD CONTACT THE SCHOOL IF THEY
ARE IN NEED OF ADDITIONAL EMPLOYEES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	10	51	11	1	
Non-CADA		8	1	1	

*The obtained value of t was .059, which is not significant at the .05 level.

some of the various attributes possessed by potential employees, and appear to be no longer prejudiced against longer hair styles.

CHAPTER V
COOPERATION BETWEEN THE NEW CAR DEALERS
AND THE EDUCATIONAL INSTITUTION

Every craftsman worthy of the name has acquired the tools and the skills necessary to use the equipment and knowledge gained in the most skillful manner. Even though he may have the expertise to perform his duties without certain tools, the realization that the proper tool is necessary for completing a job in the most efficient manner is what separates him from the everyday mechanic.

The locating of employment opportunities for vocational graduates may be left to chance, or a concerted effort may be made to locate employment in the student's chosen occupation. Just as the everyday mechanic may be successful in completing the job without the proper tool, the school must beware of falling into the same trap. The schools may graduate the student and require him to locate his own employment, or they may make the contacts necessary for him to enter his chosen occupation.

Most educational institutions beyond high school provide some form of placement service. One of the major selling points of many proprietary schools is their willingness to locate employment for their graduates.

High schools in general, and vocational schools in particular, should be actively engaged in soliciting and maintaining industrial contacts for the placement of their graduates. The schools should willingly accept this burden for a number of reasons. First, many employers seeking new employees may not know how to contact, or whom to contact, to satisfy their employment needs. Another very important reason for schools to initiate the contact is to develop community support. Possibly the most important reason to be actively engaged in working with the industrial community is to make its members aware of the types of programs offered, facilities and equipment available for training, and the possibility of establishing rapport between the students, instructors, and the potential employers.

School Communications

Ohio has done much to establish the guidelines for initiating industrial involvement. Project PRIDE, a self-review instrument to evaluate the program, process, and eventual product of vocational education has been established for this purpose. One of these guidelines requires the establishment of an occupational advisory committee.

Once every five years the state requires a report of the local PRIDE committee. Members of this committee may be new car dealers actively engaged in the community. The new car dealers were asked if they had

been asked to serve on such an occupational advisory committee.

TABLE 28

ONE OF OUR EMPLOYEES REPRESENTS THE AUTOMOTIVE
INDUSTRY ON AN OCCUPATIONAL ADVISORY COMMITTEE

	Yes	Percent	No	Percent
CADA	15	20.55	58	79.45
Non-CADA			18	100.00

The response would indicate that few dealers are actually involved with the schools through the function of an occupational advisory committee. The responses indicate that none of the non-CADA members are actively engaged on an advisory committee.

Invited to Visit Facilities

Because of the limited membership of an advisory committee, the dealers could be given a special invitation to visit the school and view the facilities, without the burden to them of becoming involved with the occupational advisory committee.

According to the response recorded in Table 29, it would indicate that the schools have not made an extensive effort to involve the automotive industry with their automotive offerings. Those responding "Undecided" would indicate that they were not aware of a specific invitation to view the facilities, either by themselves, or by their employees.

TABLE 29

WE HAVE BEEN INVITED TO VIEW THE VOCATIONAL
AUTOMOTIVE FACILITIES AT OUR LOCAL SCHOOL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	4	30	15	23	1
Non-CADA		2	2	6	

*The obtained value of t was .243, which is not significant at the .05 level.

Should be Invited to View Facilities

Teachers involved with homerooms, lesson plans, attending college, and other related school activities may have been negligent in inviting potential employers to view their facilities and equipment. The question remains: Would new car dealers welcome an invitation to view the facilities and equipment which is used to teach vocational automotive students?

The dealers who responded indicate in all but six (6) instances that they would like to be invited to view the facilities. This response could imply that they would like to become more involved with these vocational offerings which prepare students for the automotive trades.

TABLE 30

DEALERS SHOULD BE INVITED TO VIEW THE FACILITIES
AT THEIR LOCAL VOCATIONAL SCHOOL

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	19	50	3	1	
Non-CADA	2	6	1	1	

*The obtained value of t was .073, which is not significant at the .05 level.

Schools Should Contact Dealers
About Employment Opportunities

Potential employees with the needed skills and work habits are a welcome addition to any establishment. In addition to their need for expansion, these individuals are needed to replace those who retire, or for some reason leave the establishment. The question therefore becomes: Are dealers receptive to calls from schools informing them of potentially capable employees?

There is one response of "Disagree," and five responses of "Undecided." It would appear in Table 31 that the overwhelming majority (97.59%) would appreciate knowledge of the availability of qualified individuals to service and repair automobiles.

TABLE 31

THE SCHOOL SHOULD CONTACT THE DEALERS IF THEY
HAVE POTENTIALLY CAPABLE EMPLOYEES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	20	52	1		
Non-CADA		9	1		

*The obtained value of t was .076, which is not significant at the .05 level.

Schools Inform Dealers of
Employee Availability

With the dealers anxious to be contacted about the availability of potentially capable employees, does the school actually make an effort to inform the dealers about those graduates who could meet their manpower needs?

TABLE 32

THE SCHOOL DOES CONTACT US WHEN THEY HAVE
POTENTIALLY CAPABLE EMPLOYEES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	3	37	7	21	5
Non-CADA		4	1	3	2

*The obtained value of t was .169, which is not significant at the .05 level.

It would appear from those who responded that many of the dealers have been contacted when potentially capable employees are available. It should be noted that half of the non-C. A. D. A. members were not contacted and more than one-third (35.6%) of the C. A. D. A. members were not contacted when the school had persons available for employment.

Dealers Should Meet Instructors

Tables 29 and 30 reported findings concerning employers viewing the training facilities at the school. Of equal importance might be the provision to meet the instructor. The establishment of a dialogue between employer and instructor could be of benefit to both. First, future contacts could be more meaningful if the parties had previously met. In addition, cooperation for the benefit of either, or both, should be more easily gained if the individuals are known to each other. Finally, this involvement could easily provide the mechanics necessary to involve other vocational programs and industries.

The clear majority of those responding would indicate that they would indeed be interested in meeting the vocational automotive instructors.

The data thus far recorded would indicate that the schools have not done all that they could to enlist the aid and support of those who could and should employ the product of the vocational automotive day-trade programs. The question now remains: Are dealers actually interested

in becoming involved with the automotive programs?

TABLE 33
DEALERS SHOULD BE INVITED TO MEET THE
VOCATIONAL AUTOMOTIVE INSTRUCTOR

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	10	54	7	2	
Non-CADA		8	2		

*The obtained value of t was .043, which is not significant at the .05 level.

Cooperation With Schools

The response has indicated that the vocational instructors and administrators have neglected to a large degree contacting the several automobile dealers. As important as this contact would be, it could prove fruitless if those contacted refused to participate.

Dealers Should Advise on Facilities

One method of aiding the instructor to determine what should be taught would be to seek the advice of those actively engaged in the automotive service and repair industries. In addition to providing information about the current practices employed within the industry, this close contact would be an aid in the placement of students after the completion of their

course. Dealers were therefore asked whether they should advise schools on the facilities needed to develop quality programs.

TABLE 34

DEALERS SHOULD ADVISE THE SCHOOLS ON THE
FACILITIES NEEDED FOR A QUALITY
AUTOMOTIVE PROGRAM

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	9	44	13	7	
Non-CADA		8	2		

*The obtained value of t was .013, which is not significant at the .05 level.

The response to this question would indicate that most dealers feel that they should become involved with helping instructors and school administrators choose the necessary equipment and design the facilities.

Dealers Should Advise Instructors

One of the most important documents possessed by a vocational instructor is his course of study. This document should always be current and one of the ways to keep this material up to date is by having the instructor discuss the content with knowledgeable members of his occupation. This dialogue will also permit him to be aware of exactly what

industry is seeking concerning the skills he is helping his students learn.

TABLE 35

DEALERS SHOULD HAVE THE OPPORTUNITY TO
ADVISE INSTRUCTORS ON COURSE CONTENT

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	11	37	16	9	
Non-CADA		8	2	2	

*The obtained value of t was .057, which is not significant at the .05 level.

Respondents have indicated in Table 35 that they would be willing to aid the instructor by providing him with the specific course content which should be taught to the vocational student.

Schools Should Solicit Work

The primary method of providing beneficial educational training for students interested in a career in the automotive service and repair industry is to have them work on cars that are in daily use. Prosser recommends this method of instruction in his Tenth Theorem. He suggests the elimination of exercises and pseudo jobs.(51)

⁵¹ Ibid., p. 225.

There are three methods presently used to secure automotive service and repair work for vocational students. One of the most popular is to permit the student to work on cars belonging to the school faculty and those students who are enrolled in the course. Because the size of the school may limit the opportunities, some institutions have considered contacting the general public to acquire live jobs. Dealers were asked to give their opinions regarding this method of providing the students the opportunity to acquire those skills deemed necessary for entrance into the automotive industry.

TABLE 36
SCHOOLS SHOULD SOLICIT SERVICE AND REPAIR
WORK FROM THE GENERAL PUBLIC

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	1	6	11	25	30
Non-CADA		1	2	5	2

*The obtained value of t was .075, which is not significant at the .05 level.

Those responding to this statement indicate that they would oppose the schools if they were to actively solicit service and repair orders from the general public.

Dealers Should Provide Work

Another approach which has been used successfully in other areas of the state is for the school to solicit service and repair orders from the dealers. The schools using this method of acquiring vehicles provide the dealers with a specific time schedule regarding when they expect to cover certain operations. When malfunctioning automobiles are available to the dealers in need of this specific kind of repair, he arranges for the school to pick up the automobile, provides the needed parts, and the students perform the job that is required. The cars which the dealers provide in these instances are usually those which will be resold. New car dealers were asked to respond as to whether they, in general, should provide vehicles for the students to service and repair.

TABLE 37

AUTOMOBILE DEALERS SHOULD PROVIDE VEHICLES FOR
STUDENTS TO REPAIR AND/OR SERVICE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	5	19	20	22	7
Non-CADA		3	4	3	

*The obtained value of t was .044, which is not significant at the .05 level.

The response would indicate that the new car dealers do not agree that they should provide vehicles for students to service or repair. Even though this method has been used elsewhere in Ohio, many Cleveland area automobile dealers may not be aware of the benefits which might accrue to the dealer who is willing to share some of his service and repair orders. The response recorded in Table 37 may indicate the absence of an occupational advisory committee, or at least one that is not operating very efficiently.

Dealers Should Employ Instructors

Automotive service and repair instructors should be knowledgeable about the latest innovations and processes within their occupation. One method which has been used widely requires the instructor to attend summer workshops sponsored by various domestic manufacturers. The greatest drawback to this type of offering is the few number of instructors which can be accommodated. Additionally, many instructors cannot attend these informative schools because they are enrolled and attending college, or are involved with summer school programs.

Some states require that an instructor spend a certain amount of his time working in private industry to be re-certificated. Dealers were asked whether they would be willing to provide job opportunities for vocational automotive instructors either in the summer, or as part-time help.

TABLE 38

DEALERS SHOULD PROVIDE PART-TIME EMPLOYMENT
TO ENABLE AUTOMOTIVE INSTRUCTORS TO
KEEP ABREAST OF THEIR TRADE

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	6	35	21	11	
Non-CADA		6	2	1	1

*The obtained value of t was .059, which is not significant at the .05 level.

Sixty (60%) percent of the non-CADA members agreed that they should provide an opportunity for automotive instructors to remain current in their trade. More than half (52.05%) of the CADA members were of the same opinion.

Dealers Should Contact Schools

The students in the various schools have the most to gain if a working relationship can be established between the educational institution and the business community. In addition to providing them with employment, the school-community relationship can be further strengthened for future generations. This in no way inhibits the dealer because he has a ready market place in which to select future employees.

TABLE 39

DEALERS SHOULD CONTACT SCHOOLS TO INFORM THEM
OF THEIR NEEDS FOR AUTOMOTIVE TRAINEES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	9	44	17	3	
Non-CADA		7	2	1	

*The obtained value of t was .054, which is not significant at the .05 level.

The response would indicate that dealers feel they should contact the schools when in need of additional trainees.

In addition to the benefits which might accrue to the student, the instructor could also be a recipient of benefits, should the automobile industry become involved with the schools.

First, the instructor may have the opportunity to secure summer and/or part-time employment for himself, thus providing a means of remaining current with the newest practices employed in his industry. Also, the new car dealer might be more willing to provide vehicles to the school program if he and the instructor have created a working relationship.

In summary, three areas of concern appear which could be altered. First, new car dealers have not been adequately contacted by the various

schools. Second, not enough dealers appear to be involved with the several advisory committees. Third, and possibly the most important, the dealers appear to be willing to assist the schools in their educational endeavor. The initiating of communications will have to be done by the schools, and an active and willing recipient, the new car dealer, appears willing to cooperate.

CHAPTER VI
RECRUITMENT PRACTICES OF
NEW CAR DEALERS

Vocational trade and industrial education is committed to preparing youth for entrance into their chosen occupations. The response from those dealers answering the research instrument would indicate that there is little direct communication between the new car dealers and the public school vocational programs in the area studied.

Recently Hired Graduate

Because of the apparent lack of communications between the automotive industry and the vocational programs, it becomes important to determine whether new car dealers actually employ graduates of our vocational programs.

TABLE 40

WE HAVE HIRED A RECENT GRADUATE OF THE VOCATIONAL
AUTOMOTIVE SKILL TRAINING PROGRAM

	Yes	Percent	No	Percent
CADA	44	60.27	29	39.73
Non-CADA	6	60.00	4	40.00

Table 40 would indicate that neither group employs more graduates than the other group. Because of the lack of communication between the non-C.A.D.A. members, as recorded in Table 28, and the absence of occupational advisory committees of the schools, this is an interesting development. These data might indicate that the graduates of vocational programs are seeking employment without the aid of school personnel.

Locating Automotive Trainees

The major question remains: How do new car dealers actually recruit automotive service and repair trainees?

TABLE 41

METHODS USED TO LOCATE AUTOMOTIVE SERVICE AND REPAIR PERSONNEL

	CADA	Percent	Non-CADA	Percent
Newspaper Advertising	41	31.06	7	38.890
High School Contact	19	14.39	1	5.555
Relatives and Friends of Employees	32	24.25	5	27.780
Vocational Program Contact	27	20.45	1	5.555
Relatives and Friends	6	4.55	2	11.110
Other	7 ^a	5.30	2 ^b	11.110

^aWaiting list, General Motors Training Center (2), Ford Job Entry, Ford Training School, Walk-in, Union.

^bFederal Apprentice Program, Employment Office.

The response in Table 41 would indicate that both C.A.D.A. members and non-C.A.D.A. members agree that newspaper advertising is the single most utilized method used to locate new service and repair personnel.

One of the C.A.D.A. members indicated that he was able to contact the "union" for employees. Mr. Phillip Zannella, President of the Cleveland Automotive Trades Union, informed the writer that an individual must obtain the job through his own resources as the union provides no training facilities, but does provide a referral service for those members seeking employment. (52)

The normal process followed by those seeking union membership is to become hired by a union shop. The new employee must then join the union within thirty (30) days. The responsibility for determining the length of the apprenticeship rests with the service manager. This individual evaluates the new employee and then assigns him from six months to four years apprenticeship.

The ten respondents from the non-C.A.D.A. group indicated only two "Other" means of acquiring new service and repair trainees: Federal Apprentice Program, and the use of an employment office.

⁵² Private telephone conversation with Phillip Zannella, February 15, 1974.

Recommended by Employees

In addition to the newspaper, both groups appear to rely heavily upon their employees to furnish new employees from among their friends and relatives. Another statement asked dealers their opinion of employing those recommended by their employees.

TABLE 42

DEALERS WOULD PREFER TO HIRE THOSE
RECOMMENDED BY THEIR EMPLOYEES

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	6	23	19	22	3
Non-CADA		6	3		1

*The obtained value of t was .138, which is not significant at the .05 level.

The response to Table 42 differs from the previous table. Table 41 would lead one to believe that dealers place a heavy reliance upon those recommended by their employees for employment. The above table would indicate that a majority would accept for employment those recommended by their employees, but a substantial minority would be opposed to using this group as a source for new employees. The non-CADA members seem to rely upon this source for new employees to a far greater extent than the

members who are affiliated with the national dealers' association.

Test Results

The state of Ohio requires every student enrolled in a vocational trade and industrial automotive program to take a standardized achievement test. Even though this is not a performance test, the results could offer a clue as to the knowledge and understanding attained by the student.

TABLE 43

TEST RESULTS OF THOSE COMPLETING A VOCATIONAL PROGRAM SHOULD BE MADE AVAILABLE TO EMPLOYERS

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	10	51	7	4	1
Non-CADA		7	2		1

*The obtained value of t was .095, which is not significant at the .05 level.

The legality of providing this information may be in question, but the response would lead this researcher to believe that most dealers would be interested in acquiring this information to evaluate an applicant for employment.

Dealer Administered Tests

Dealers could circumvent the acquisition of those tests administered by the school by administering a test to each applicant. Unfortunately, this method of new employee evaluation and selection has many shortcomings.

If the potential employer should decide to administer a performance test, some service facility must be made available. Since the person we are discussing is not a craftsman, but should be classified as a learner, the area may be non-profit producing for the length of time that the test is being administered. Another more expensive element to be considered, both to the dealer and the employee assigned to administer the test, would be the length of time this individual would be involved with administering the test, and not involved with production. A third area of concern would be whether the dealer would want to test this individual on a customer's car.

TABLE 44

ALL APPLICANTS SHOULD BE TESTED
BEFORE THEY ARE EMPLOYED

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	3	38	15	15	2
Non-CADA	1	5	3	1	

*The obtained value of t was .132, which is not significant at the .05 level.

The above table indicates that dealers are in favor of administering a test to those who have decided upon a career in the automotive service and/or repair industry.

The logical objection to the use of a performance test might lead an individual dealer to decide upon the use of an achievement test. Developing a test that meets the specific needs of the dealership can be time-consuming and costly. In addition, if there is no opportunity to field test the instrument, it might not be either valid or reliable. But, should the dealer decide to employ the services of an independent testing agency, the costs might appear to be prohibitive.

Employment Based on Interview

If the dealer has no contact with the educational institution to actually have the student evaluated by the automotive instructor, and he has neither the time or money to administer an achievement or performance test, the only option available would be to depend upon an interview with the applicant.

The response would indicate that the preponderance of those dealers responding would not be satisfied with only an interview to ascertain the knowledge and skills of a potential employee.

This section has revealed a number of interesting factors regarding the employment practices of new car dealers. Newspaper advertising

TABLE 45

DEALERS SHOULD OFFER EMPLOYMENT BASED
SOLELY UPON AN INTERVIEW

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
CADA	4	6	3	35	25
Non-CADA		4		4	2

*The obtained value of t was .177, which is not significant at the .05 level.

appears to be the most prevalent method used to locate new service and repair trainees. The employment of the relatives and friends of new car dealer employees is not universally accepted, except by non-C. A. D. A. dealers. The least acceptable method for selecting new employees, according to the respondents, is to employ an individual based upon an interview.

The school could provide many benefits to new car dealers if a working relationship is created. First, the cost for advertising could be eliminated if the dealers would contact the schools. Second, since the employment of relatives and friends is not universally accepted, except by the non-C. A. D. A. members, this would eliminate this source of new employees for those who do not want to use it. New car dealers have universally rejected the selection of new employees based on an interview,

and the schools have numerous records which could be consulted for an employer's evaluation. Finally, dealers would like to have the opportunity to test, or evaluate, an individual prior to their employment. There is no better source of testing expertise than their local school. It is obvious that, based on the foregoing information, any involvement which could be established between the new car dealers and the educational institution would be of benefit to both.

CHAPTER VII

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to investigate some of the factors which might influence the acceptance or rejection of day-trade automotive service and repair graduates. One of the elements which was under investigation included the knowledge of vocational day-trade programs possessed by new car dealers. In addition, the study was interested in determining the personal characteristics which might influence an employer to select or reject applicants for employment. Further, how, and by whom, did the new car dealer want those interested in an automotive service and repair career trained. Also, is the educational institution providing a means of communicating with automobile dealers. Would they be receptive to an overture from the educational institution and be willing to cooperate. Finally, how do new car dealers locate service and repair personnel.

Findings

Knowledge of Vocational Education

New car dealers would appear to possess a very meager knowledge

about vocational education, based on the following findings.

1. More than seventy (70%) percent, of both the C.A.D.A. and non-C.A.D.A. dealers did not know that a vocational automotive instructor is required to have seven years recent experience in the occupation he has been employed to teach.

2. Almost two-thirds of the C.A.D.A. members, and more than two-thirds of the non-C.A.D.A. members were not aware that the student must spend a minimum of three hours per day in the shop/laboratory.

3. Almost one-quarter of the C.A.D.A. members and one-third of the non-C.A.D.A. members were not aware that the student must freely choose a vocational program.

4. Approximately one-third of the respondents did not know that an automotive skill training program is two years in length. Additionally, the majority of both groups did not know that automotive skill training programs are not offered prior to the eleventh grade.

5. Almost one-half of the respondents were unaware that the purpose of industrial arts is to provide knowledge about a great number of industrial occupations. Further, most of the respondents were not aware that the industrial arts program is not designed to develop pre-employment skills.

6. Almost three-quarters of the C.A.D.A. members and eighty (80%) percent of the non-C.A.D.A. members were not aware that the

graduates of the trade and industrial automotive service and repair programs can enroll in most of Ohio's public colleges and universities.

7. Even though automotive graduates are expected to have acquired entry-level skills, and not those of a skilled craftsman, more than one-quarter of the C.A.D.A. members and more than one-third of the non-members were not aware of this primary goal of vocational education.

In summary, these findings would indicate that new car dealers have not been properly and/or adequately informed about the requirements and goals of vocational education. Also, it would appear that they have confused the general education offering of industrial arts with the specific job training program offered through vocational education.

Student Characteristics

Certain personal characteristics, i.e., red hair indicates a violent temper, or members of some racial groups are either lazy, or dishonest, are now considered old wives' tales. Even though these characteristics have proved false, it required a federal law to eliminate employment restrictions based upon race, religion, and national origin.

A few years ago, a person with long hair was identified with the drug, or hippie, culture. This type-casting resulted in family, school, and social disapproval. The social disapproval resulted in the suspension from school and a marked difficulty in locating and retaining employment.

Because the mission of vocational education is to prepare students for immediate employment after school, it is important to know what stand potential employers have taken regarding shoulder-length hair.

1. Less than one-quarter of the C. A. D. A. members indicated that they would not employ a person with shoulder-length hair. The results would indicate that the non-C. A. D. A. members were more liberal, as none of those responding indicated that shoulder-length hair would prevent a person from securing employment in their agencies.

2. Dealers also indicated that they, and their fellow dealers, should contact the educational institutions to discover student grades, conduct, and attendance for those applying for employment.

3. An overwhelming majority of both groups of respondents indicated that the instructor should be contacted for his evaluation of the applicant.

In summary up this section, it appears that dealers are not primarily concerned about an applicant's personal appearance. But, the results would indicate that the dealers are very interested in the applicant's grades, attendance, and behavior while in school. Also, these results have indicated that they may be willing to initiate a cooperative relationship between themselves and the educational institution.

Training

If vocational education is meeting the needs of the potential employer, then the graduates of approved vocational programs should be accepted by that industry.

1. The responses from those dealers replying to the research instrument indicate that a vocationally prepared high school graduate is more acceptable than one who has received only a general education.

2. The respondents have refuted the argument that vocational education should be delayed because of youth and lack of maturity.

3. Dealers do not appear to favor post-high school public or private vocational education programs.

4. The response of new car dealers would indicate that automobile manufacturers should assume the burden of training potential service and repair personnel.

5. More than two-thirds of the respondents were opposed to the cluster approach to vocational preparation.

In summation, it would appear that the methods used to train auto mechanics in Ohio's public secondary school vocational programs are meeting the needs of the new car dealer. It would also appear that a "cluster" approach to vocational education would not have a great dealer acceptance.

Communcations

To create a meaningful dialogue between new car dealers and the educational institution, some form of communications must be initiated. Either population may exist without this intercourse, but neither can expect to function efficiently if this rapport is not established.

The responsibility for initiating this cooperative venture with new car dealers is the responsibility of the schools, not the dealers. Industries make every effort to make their products available to the consumer. Without an established rapport between the schools and the new car dealers, the schools, after preparing the student, are not providing a means for adequate distribution. There are a number of ways to encourage and develop the involvement between the schools and the automotive industry.

1. Dealers should be invited to serve on occupational advisory committees.
2. Dealers should be invited to view the facilities and/or advise the schools on the facilities and equipment necessary for quality programs.
3. Efforts should be made which would enable the instructor to become personally known to the dealers.
4. Dealers should be informed when potentially capable graduates are available for employment.
5. Schools should contact the dealers and arrange for the automotive instructor to work part-time or summers to enable him to remain current

in his occupation.

In each of the above instances, the new car dealers appeared to be willing to become involved with the schools, if they were contacted. Dealers were not receptive to the following two proposals.

1. Dealers were opposed to the soliciting of service and repair orders from the general public.

2. Dealers did not appear anxious to provide automobiles which would be serviced and/or repaired by students.

The last two suggestions which were opposed by many new car dealers have succeeded in other Ohio communities. The success of these ventures is based largely upon the efforts of the occupational advisory committees and the cooperation of those dealers not actively serving on the advisory committees.

In reviewing this section, it would appear that the only restriction preventing the cooperation of the new car dealers and the vocational automotive programs is the lack of communications from the school to the individual dealers.

Locating Personnel

Sooner or later, every business establishment will require replacement of personnel to meet the needs of normal attrition and possible expansion.

1. The majority of the new car dealers have admitted hiring vocational program graduates; the response would indicate that they have done so with little effort provided by the schools.

2. Both groups of respondents indicated that the primary method used for locating new personnel was through the use of newspaper advertising. The second most frequent response indicated that they employed the friends and relatives of their employees.

3. Those enrolled in vocational automotive programs must take a trade achievement test, the results of which dealers would like to have made available.

In summation, it would appear that the school is not providing a placement service for those enrolled in the automotive service and repair programs. One of the duties normally attributed to the advisory committee is the placement of graduates. The responses reported in this section would indicate that the advisory committees are not functioning at their proper level, or they do not exist.

Conclusions

After reviewing the tables contained in this study, one distinguishing common element swiftly emerges--there is almost a complete absence of communication between the educational institutions and the new car dealers. The inference which naturally follows from this finding is that

this communications gap is not limited to just this one industry, but is prevalent in most other industry-school relationships. This in turn leads to further ramifications, which become increasingly evident.

1. There appears to be little to differentiate vocational education from industrial arts education in the minds of those responding to the questionnaire.

2. The majority of those who responded to the questionnaire indicated that they were interested in becoming involved with vocational education.

3. It is evident that potential employers are interested in the grades, attendance, and conduct of potential employees.

4. Employers prefer the student to have indepth training in one particular skilled occupation.

5. There is little evidence to indicate that the schools have utilized all available resources in the placement of students after they have completed a vocational program.

7. An active occupational advisory committee must be established for continued community support and employer acceptance.

Recommendations

1. The Ohio State Department of Education should develop and produce a brochure which graphically illustrates the content of the

vocational automotive service and repair programs. This information should include a course description, method of student selection, time requirements, and teacher qualifications.

2. The materials developed by the State Department of Education should be presented to a representative assembly of dealer groups by a member of the Division of Vocational Education. An audio-visual presentation should be included with this presentation.

3. All new car dealers should be invited to view the training facilities, meet the instructor, and receive some specific information about the program offerings. This group could provide the foundation for an occupational advisory committee.

4. A printed piece, similar to that produced by the State Department of Education, should be made available in every local community. This material may be taken home by students, or distributed at an open house.

5. An open house multi-media presentation should be presented by the instructor to interested parents and students.

6. Minutes of advisory committee meetings should be forwarded to teacher-educators. These minutes would then be searched for innovative ideas for including all interested dealers.

7. A specific course offering describing how to develop and employ occupational advisory committees should be made available at the several vocational teacher training centers in the state.

8. A student placement bureau should be established by each school offering vocational automotive programs. The schools should contact dealers to determine their needs and inform dealers of potential graduates.

Finally, this study should be replicated five years after the above recommendations have been initiated to determine whether they have had any effect upon the establishment of communications between the new car dealers and the schools.

APPENDIX A

Cover Letters and Instrument

521 Tollis Parkway, #391
Broadview Heights, Ohio 44147

Dear C. A. D. A. Member:

Would you please help me? I am presently completing the requirements for a Ph.D. in Vocational-Technical Education at The Ohio State University. We are trying to determine your opinions, attitudes and understanding of vocational Trade and Industrial Education.

Mr. James R. Garfield, Executive Vice President and Secretary of the Cleveland Automobile Dealers' Association, graciously provided me with a membership directory to aid in this study.

The enclosed questionnaire takes about ten minutes to complete and should be filled out by the person responsible for employing service and repair personnel. Should you desire a copy of the final report, please include your name, address and zip code on the questionnaire.

Thank you for your kind consideration.

Sincerely,

Allen E. Fousek

521 Tollis Parkway, #391
Broadview Heights, Ohio 44147

Dear New Car Dealer:

Would you please help me? I am presently completing the requirements for a Ph.D. in Vocational-Technical Education at The Ohio State University. We are trying to determine your opinions, attitudes and understanding of vocational Trade and Industrial Education.

The enclosed questionnaire takes about ten minutes and should be completed by the person responsible for employing service and repair personnel. Should you desire a copy of the final report, please include your name, address and zip code on the questionnaire.

Sincerely,

Allen E. Fousek

NEW CAR DEALERS' EVALUATION OF SERVICE AND
REPAIR TRAINEES WHO ARE GRADUATES OF
HIGH SCHOOL VOCATIONAL PROGRAMS

To be completed by the person responsible
for initial employment.

Please complete the following if you desire a copy of this report.

Name _____

Address _____

City _____ Zip _____

NEW CAR DEALERS' QUESTIONNAIRE

Directions

This questionnaire is being sent to you because of your responsibility to hire those interested in a career of repairing and servicing automobiles. Please answer each question as honestly as you can remembering that there is no right or wrong answer.

PART I

Part I is comprised of factual statements about vocational Trade and Industrial Education. The purpose of this section is to determine whether those responsible for explaining Trade and Industrial Education have done an adequate job.

Example:

Did	Did Not
Know	Know



Trade and Industrial day-trade programs provide a minimum of 1080 hours of instruction during the 2-year training program.

The person answering this question was not aware of the minimum training time required for a day-trade Trade and Industrial program in Ohio.

PART I

Knowledge of Vocational Trade and Industrial Education

Did Know Did Not Know

1. A vocational automotive instructor without a degree must have a minimum of 7 years recent experience in the trade he is teaching, at least 3 must be of journeyman status.
2. Minimum day-trade standard for vocational trade and industrial education is 3 hours per day of shop/laboratory instruction.
3. Students enrolled in vocational automotive skill programs must select the program, and are not forced to take the program.
4. Automotive skill training programs are 2 years in length, 11th and 12th grades.
5. Automotive skill programs are not offered prior to the 11th grade.
6. Industrial Arts is a program developed to provide knowledge only about a great number of industrial occupations.
7. Industrial Arts offerings are not designed to develop pre-employment skills.
8. Industrial Arts programs are offered to students in grades 7 through 12.
9. Vocational automotive programs require the assistance of an occupational advisory committee.
10. Persons completing a vocational trade and industrial program can enroll in most of Ohio's public colleges and universities.

PART I -- continued

Did Did Not
Know Know

11. Vocational automotive students are trained to acquire entry-level skills, and are not expected to have the skills and knowledge of a craftsman.

PART II

Directions

The purpose of these questions is to determine how you feel about certain aspects of vocational education and the methods in which you evaluate application for employment for persons seeking positions as automotive service and repair trainees.

Please circle the response which corresponds closest to your feeling about each item.

SA--Strongly Agree
A--Agree
U--Undecided
D--Disagree
SD--Strongly Disagree

Do not take too much time thinking about any particular item. Please do not leave out any item--there is no right or wrong answer--it is just how you feel about things. Others may have different opinions.

Example


SA U D SD Vocational education should be included in the high school curriculum.

This person agrees with the item and thus feels that it should be in the school curriculum.

Put a circle around the answer which comes the closest to representing your feeling. Even if your exact feeling is not found in one of the choices, pick the one which comes the closest to your true feeling. Sometimes it will be hard to make up your mind, but do the best that you can and do not leave any out.

- | | | | | | |
|----|---|---|---|----|---|
| SA | A | U | D | SD | 1. Vocational automotive graduates with shoulder-length hair would not be employed at this dealership. |
| SA | A | U | D | SD | 2. Dealers should contact the vocational school for the grades of automotive skill applicants. |
| SA | A | U | D | SD | 3. Dealers should contact the vocational instructor for his evaluation of an applicant before considering the applicant for employment. |
| SA | A | U | D | SD | 4. Dealers should contact the vocational school/high school to inquire about the applicant's attendance. |
| SA | A | U | D | SD | 5. Dealers should offer employment based solely upon an interview. |
| SA | A | U | D | SD | 6. Dealers should contact the school to evaluate the applicant's conduct while in school. |
| SA | A | U | D | SD | 7. Dealers would prefer to hire those recommended by their employees. |
| SA | A | U | D | SD | 8. Dealers would prefer to hire those graduates with a general education rather than someone who has been graduated from a vocational automotive program. |
| SA | A | U | D | SD | 9. The school does contact us when they have potentially capable employees. |

- SA A U D SD 10. Vocational program graduates are usually too young and lack maturity.
- SA A U D SD 11. Dealers would prefer vocational training in the automotive trades to begin after the completion of high school.
- SA A U D SD 12. Dealers should be invited to view the facilities at their local vocational school.
- SA A U D SD 13. The school should contact the dealers if they have potentially capable employees.
- SA A U D SD 14. Automobile dealers should advise the schools on the facilities needed for a quality automotive service and repair program.
- SA A U D SD 15. Automobile dealers should aid the teacher in the development of course content.
- SA A U D SD 16. Automobile dealers should provide vehicles for students to repair and/or service.
- SA A U D SD 17. Automobile dealers should provide part-time and/or summer employment to enable vocational automotive instructors the opportunity to keep abreast of their trade.
- SA A U D SD 18. Automobile dealers should contact the school if they are in need of additional employees.
- SA A U D SD 19. Schools should solicit service and repair work from the general public.
- SA A U D SD 20. Dealers should be invited to meet the vocational automotive instructor.
- SA A U D SD 21. Graduates of vocational programs should be trained in only one of the automotive trade areas, i. e., auto body and fender repair or auto mechanics, not both areas.

- SA A U D SD 22. Service and repair applicants should be trained in private vocational schools after completing high school.
- SA A U D SD 23. Those interested in a career in the automotive service and repair industry should be trained by individual dealers.
- SA A U D SD 24. Those interested in a career in the automotive service and repair industry should be trained by the automobile manufacturers.
- SA A U D SD 25. All applicants for employment in the automotive repair and service industry should be given a test before they are employed.
- SA A U D SD 26. Test results of those completing a high school vocational trade and industrial training program should be made available to prospective employers.
- SA A U D SD 27. We should contact the vocational school for the grades of automotive skill applicants.
- SA A U D SD 28. We should contact the vocational instructor for his evaluation of an applicant before considering the applicant for employment.
- SA A U D SD 29. We should contact the vocational school to inquire about the applicant's attendance.
- SA A U D SD 30. We should contact the school to evaluate the applicant's conduct while in school.
- SA A U D SD 31. We have been invited to view the vocational automotive facilities at our local school.
- SA A U D SD 32. Schools should contact dealers to inform them of potentially capable employees.
- SA A U D SD 33. We should have the opportunity to advise schools on the facilities needed for a quality program.
- 

- SA A U D SD 34. We should have the opportunity to advise vocational instructors on what information and skills should be taught.
- SA A U D SD 35. We should provide vehicles for students to service and/or repair.
- SA A U D SD 36. We should provide part-time and/or summer employment for vocational auto instructors.
- SA A U D SD 37. We should contact schools to inform them of our needs for automotive service and repair trainees.
- SA A U D SD 38. We should have the opportunity to meet the vocational automotive instructors at their local schools.

PERSONAL AND OTHER DATA

1. Title of person completing form:

Owner Owner/Manager Service Manager
 Other (Please specify) _____

2. Your present age is:

20-24 25-29 30-39 40-49
 50-59 60 years or over

3. You have been responsible for hiring trainees for:

Less than 1 year 1-3 years 4-6 years
 7-12 years 13-18 years Over 18 years

4. Primary method used to locate automotive repair and service trainees:

Newspaper advertising Vocational program contact
 High school contact Relatives and friends
 Relatives and friends of employees
 Other (Please specify) _____

5. One of our employees represents the automotive industry on an occupational advisory committee to the local vocational school.

Yes No

6. We have hired a recent graduate of a vocational automotive skill training program.

Yes No

APPENDIX B

Raw Scores of Instrument

RAW SCORE DATA

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. CADA	8	7	8	42	8
Non-CADA			1	7	2
2. CADA	18	47	5	2	1
Non-CADA	1	6	1	2	
3. CADA	20	44	8	1	
Non-CADA	3	5		2	
4. CADA	23	45	3	2	
Non-CADA	3	5		2	
5. CADA	4	6	3	35	25
Non-CADA		4		4	2
6. CADA	17	48	5	3	
Non-CADA	3	4		2	1
7. CADA	6	23		22	3
Non-CADA		6	3		1
8. CADA		1	3	56	13
Non-CADA		1		8	1
9. CADA	3	37	7	21	5
Non-CADA		4	1	3	2

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
10.	CADA	2	12	16	36	7
	Non-CADA		1	3	6	
11.	CADA	3	10	16	36	8
	Non-CADA	1	2	2	3	2
12.	CADA	19	50	3	1	
	Non-CADA	2	6	1	1	
13.	CADA	20	52	1		
	Non-CADA		9	1		
14.	CADA	9	44	13	7	
	Non-CADA		7	3		
15.	CADA	11	37	16	9	
	Non-CADA		8	2		
16.	CADA	5	19	20	22	7
	Non-CADA		3	4	3	
17.	CADA	6	35	21	11	
	Non-CADA		6	2	1	1
18.	CADA	10	51	11	1	
	Non-CADA		8	1	1	
19.	CADA	1	6	11	25	30
	Non-CADA		1	2	5	2

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
20.	CADA	10	54	7	2	
	Non-CADA		8	2		
21.	CADA	14	35	1	19	4
	Non-CADA	2	5	1	2	
22.	CADA		13	26	30	4
	Non-CADA		1	4	4	1
23.	CADA	3	13	12	45	
	Non-CADA		5	1	3	1
24.	CADA	8	25	18	18	4
	Non-CADA		4	4	2	
25.	CADA	3	38	15	15	2
	Non-CADA	1	5	3	1	
26.	CADA	10	51	7	4	1
	Non-CADA		7	2		1
27.	CADA	7	52	10	3	1
	Non-CADA		6	2	1	1
28.	CADA	14	49	7	3	
	Non-CADA		8	1	1	
29.	CADA	9	58	4	2	
	Non-CADA		8		2	

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
30.	CADA	10	55	6	2	
	Non-CADA		8	1	1	
31.	CADA	4	30	15	23	1
	Non-CADA		2	2	6	
32.	CADA	11	59	2	1	
	Non-CADA	1	8	1		
33.	CADA	5	47	14	7	
	Non-CADA		8	2		
34.	CADA	7	42	17	7	
	Non-CADA		7	1	2	
35.	CADA	4	18	22	23	5
	Non-CADA		3	3	4	
36.	CADA	5	30	21	17	
	Non-CADA		6	2	2	
37.	CADA	9	44	17	3	
	Non-CADA		7	2	1	
38.	CADA	10	53	9	1	
	Non-CADA		8	1	1	

APPENDIX C

Mailing List

Cleveland Automobile Dealers' Association Directory

Pete Bauer's American Motors--lost franchise
7122 Broadway
Cleveland, Ohio 44105

Eastway American, Inc.
18781 Lake Shore Boulevard
Cleveland, Ohio 44119

Joe Erdelac Motor Mart, Inc.
16515 Lorain Avenue
Cleveland, Ohio 44111

Bob Kay, Inc.
310 Broadway
Bedford, Ohio 44146

Fred Sheffler, Inc.
475 Front Street
Berea, Ohio 44017

Steve Barry Buick, Inc.
16000 Detroit Avenue
Lakewood, Ohio 44107

Friedman Buick Company
6777 Mayfield Road
Cleveland, Ohio 44124

Grieder Buick, Inc.
6615 Brookpark Road
Parma, Ohio 44129

Lake Buick, Inc.
15200 Lorain Avenue
Cleveland, Ohio 44111

Bob Miller Buick, Inc.
8401 Broadway
Cleveland, Ohio 44105

Qua Buick, Inc.
10250 Shaker Boulevard
Cleveland, Ohio 44104

Shaker Heights Buick
3393 Warrensville Center Road
Shaker Heights, Ohio 44122

Sims Brothers Buick, Inc.
21601 Euclid Avenue
Euclid, Ohio 44117

Stone-Bowers Buick, Inc.
250 Broadway
Bedford, Ohio 44146

Toth Motor Sales, Inc.
880 North Rocky River Drive
Berea, Ohio 44017

Central Cadillac Company
2801 Carnegie Avenue
Cleveland, Ohio 44115

Conway Cadillac, Inc.
26000 Chagrin Boulevard
Beachwood, Ohio 44122

DeLorean Cadillac, Inc.
11915 Detroit Avenue
Lakewood, Ohio 44107

Bass Chevrolet, Inc.
4499 Northfield Road
Warrensville Heights, Ohio 44128

Bigelow Chevrolet, Inc.
7800 Broadview Road
Cleveland, Ohio 44134

Blaushild Chevrolet, Inc.
16005 Chagrin Boulevard
Shaker Heights, Ohio 44120

Brooklyn Chevrolet Company
4941 Pearl Road
Cleveland, Ohio 44109

Doraty Chevrolet, Inc.
6376 Pearl Road
Parma Heights, Ohio 44130

Earl Evans Chevrolet, Inc.
1245 Mentor Avenue
Painesville, Ohio 44077

Fairchild Chevrolet, Inc.
12120 Detroit Avenue
Lakewood, Ohio 44107

Jackshaw Chevrolet, Inc.
543 East 185th Street
Euclid, Ohio 44119

Lally-Fiedler Chevrolet, Inc.
500 Broadway
Bedford, Ohio 44146

The Merrick Chevrolet Company
520 Front Street
Berea, Ohio 44017

C. Miller Chevrolet, Inc.
14481 Euclid Avenue
East Cleveland, Ohio 44112

Joe O'Brien Chevrolet Company
5180 Mayfield Road
Lyndhurst, Ohio 44124

Parker Reynolds Chevrolet, Inc.
26890 Lorain Road
North Olmsted, Ohio 44070

Poklar Chevrolet, Inc.
2147 Broadway
Lorain, Ohio 44052

The South East Chevrolet Company
8815 Broadway
Cleveland, Ohio 44105

Ed Stinn Chevrolet, Inc.
21201 Center Ridge Road
Fairview Park, Ohio 44146

West Park Chevrolet, Inc.
15315 Lorain Avenue
Cleveland, Ohio 44141

Cedar-Lee Chrysler-Plymouth, Inc.
1970 Lee Road
Cleveland Heights, Ohio 44118

Deacon's Chrysler-Plymouth, Inc.
835 SOM Center Road
Mayfield Village, Ohio 44124

DeLuca Chrysler-Plymouth, Inc.
180 Rockside Road
Bedford, Ohio 44146

Doraty Chrysler-Plymouth, Inc.
6767 Brookpark Road
Parma, Ohio 44129

Don Jordan Chrysler-Plymouth, Inc.
25855 Chagrin Boulevard
Beachwood, Ohio 44122

Euclid Chrysler-Plymouth, Inc.
20941 Euclid Avenue
Euclid, Ohio 44117

Mid Park Chrysler-Plymouth, Inc.
6780 Pearl Road
Middleburg Heights, Ohio 44130

Bill Scher Motors, Inc.
14651 Lorain Avenue
Cleveland, Ohio 44111

Spitzer Lakewood Chrysler-Plymouth, Inc.
13815 Detroit Avenue
Lakewood, Ohio 44107

B. W. Blaushild Motors, Inc.
16333 Chagrin Boulevard
Shaker Heights, Ohio 44120

Len Derin Dodge, Inc.
26100 Lorain Road
North Olmsted, Ohio 44070

East Cleveland Dodge, Inc.
14401 Euclid Avenue
East Cleveland, Ohio 44112

Frank G. Elliott, Inc.
245 Broadway
Bedford, Ohio 44146

Glavic Motors, Inc.
28840 Euclid Avenue
Wickliffe, Ohio 44092

Ed Goldie, Inc.
11800 Pearl Road
Cleveland, Ohio 44136

Podway Motors, Inc.
14400 Detroit Avenue
Lakewood, Ohio 44107

Porach Dodge City, Inc.
15600 Lorain Avenue
Cleveland, Ohio 44111

Spitzer Motor Center, Inc.
13001 Brookpark Road
Cleveland, Ohio 44130

Bedford Motors, Inc.
175 Broadway
Bedford, Ohio 44146

Chagrin Valley Sales and Service Company
32811 Aurora Road
Solon, Ohio 44139

Commerce Ford Sales, Inc.
4651 Northfield Road
North Randall, Ohio 44128

Bob Gillingham Ford, Inc.
8383 Brookpark Road
Parma, Ohio 44129

Grabski Ford, Inc.
8003 Broadway
Cleveland, Ohio 44105

Halleen Ford, Inc.
27932 Lorain Road
North Olmsted, Ohio 44070

Independence Ford, Inc.
6950 Brecksville Road
Independence, Ohio 44131

Marc Lance Ford, Inc.
23775 Center Ridge Road
Westlake, Ohio 44145

LaRiche Ford, Inc.
1290 West 117th Street
Lakewood, Ohio 44107

Robert Lee Ford, Inc.
14550 Lorain Avenue
Cleveland, Ohio 44111

The Marshall Motor Company
6200 Mayfield Road
Mayfield Heights, Ohio 44124

Shaker Ford, Inc.
3558 Lee Road
Shaker Heights, Ohio 44120

Southwest Ford Sales Company
6600 Pearl Road
Parma Heights, Ohio 44130

Spitzer Ford, Inc.
13231 Euclid Avenue
East Cleveland, Ohio 44112

L. J. Trotter Ford, Inc.
30011 Euclid Avenue
Wickliffe, Ohio 44092

Birkett Williams Ford, Inc.
4601 Euclid Avenue
Cleveland, Ohio 44103

Williams Motor Company
739 Front Street
Berea, Ohio 44017

Crossroads Lincoln-Mercury
8415 Broadway
Cleveland, Ohio 44105

Hal Artz Lincoln-Mercury, Inc.
5930 Mayfield Road
Mayfield Heights, Ohio 44124

Broadvue Motors, Inc.
6930 Pearl Road
Cleveland, Ohio 44130

Halken Shaker Motors, Inc.
16451 Chagrin Boulevard
Shaker Heights, Ohio 44120

LaRiche Lincoln-Mercury, Inc.
16303 Detroit Avenue
Lakewood, Ohio 44107

Frank Nero Lincoln-Mercury, Inc.
270 Broadway
Bedford, Ohio 44146

Wick Lincoln-Mercury, Inc.
15001 Euclid Avenue
East Cleveland, Ohio 44112

Wyatt Lincoln-Mercury, Inc.
16100 Lorain Avenue
Cleveland, Ohio 44111

Dowd Oldsmobile, Inc.
2900 Mayfield Road
Cleveland Heights, Ohio 44118

Earl Oldsmobile, Inc.
4323 Pearl Road
Cleveland, Ohio 44109

Hern Oldsmobile, Inc.
444 Broadway
Bedford, Ohio 44146

Bob Kuhlman Oldsmobile, Inc.
15150 Lorain Avenue
Cleveland, Ohio 44111

LaTour Oldsmobile, Inc.
25200 Euclid Avenue
Euclid, Ohio 44117

Gene Norris Oldsmobile, Inc.
18170 Bagley Road
Middleburgh Heights, Ohio 44130

A. D. Pelunis Oldsmobile, Inc.
13123 Detroit Avenue
Lakewood, Ohio 44107

Reliable Oldsmobile, Inc.
7029 Broadway
Cleveland, Ohio 44105

Zalud Oldsmobile, Inc.
16101 Chagrin Boulevard
Shaker Heights, Ohio 44120

Arthur Pontiac, Inc.
3077 Mayfield Road
Cleveland, Ohio 44118

Feder Pontiac, Inc.
3620 Lee Road
Shaker Heights, Ohio 44120

Grabski Pontiac, Inc.
6872 Broadway
Cleveland, Ohio 44105

Jackshaw Pontiac, Inc.
11801 Detroit Avenue
Lakewood, Ohio 44107

Jay Pontiac, Inc.
566 Broadway
Bedford, Ohio 44146

Lou Meliska Pontiac, Inc.
6603 Brookpark Road
Parma, Ohio 44129

Milt Miller Pontiac, Inc.
22501 Shore Center Drive
Euclid, Ohio 44123

Paradise Pontiac, Inc.
25870 Lorain Avenue
North Olmsted, Ohio 44070

Roth Pontiac, Inc.
14000 Pearl Road
Strongsville, Ohio 44136

Cal Wible, Inc.
321 South Court Street
Medina, Ohio 44256

Wick Pontiac, Inc.
38047 Vine Street
Willoughby, Ohio 44094

Airport Mazda
7007 Brookpark Road
Cleveland, Ohio 44129

Dowd Imports, Inc.
2958 Mayfield Road
Cleveland, Ohio 44118

Feder Imports, Inc.
3582 Lee Road
Shaker Heights, Ohio 44120

Jaguar Cleveland Motors
3020 Mayfield Road
Cleveland Heights, Ohio 44118

Metro Toyota, Inc.
14720 Lorain Avenue
Cleveland, Ohio 44111

Porsche-Audi Motor Cars, Inc.
580 Broadway
Bedford, Ohio 44146

Lake City Mazda
11 Broadway
Bedford, Ohio 44146

Southwest Toyota of Parma, Inc.
2229 Brookpark Road
Cleveland, Ohio 44134

Toyota on the Heights, Inc.
2950 Mayfield Road
Cleveland, Ohio 44118

Ellacott Shaker Motors, Inc.
4459 Northfield Road
Warrensville Heights, Ohio 44128

Fred-Vincent VW, Inc.
28400 Chardon Road
Willoughby Hills, Ohio 44092

Mayfield Motors Company
2926 Mayfield Road
Cleveland Heights, Ohio 44118

Dragan-Sideras VW, Inc.
25600 Lorain Road
North Olmsted, Ohio 44070

Parma Motors Company
7115 Brookpark Road
Parma, Ohio 44129

Volkswagen Central, Inc.
6212 Brecksville Road
Cleveland, Ohio 44131

Non-C.A.D.A. Members

Lloyd American Motors
29824 Euclid Avenue
Cleveland, Ohio 44092

Beebe and Elliott, Inc.
27730 Lorain Road
North Olmsted, Ohio 44070

Berea Chrysler-Plymouth, Inc.
563 Front Street
Berea, Ohio 44017

Bedford Datsun
7 Broadway
Bedford, Ohio 44146

Bryley's Motor Center
Royalton and Ridge
North Royalton, Ohio 44133

Heights Imported Car Company
4365 Mayfield Road
Cleveland, Ohio 44121

MG Motor Sales
16000 Madison Avenue
Lakewood, Ohio 44107

Parma Sports Cars
Brookpark and Pearl
Parma, Ohio 44129

Holiday Mazda, Inc.
495 East 185th Street
Cleveland, Ohio 44119

Koepke Motor Sales
11905 Detroit Avenue
Lakewood, Ohio 44107

Berea Porsche-Audi Inc.
300 North Rocky River Drive
Berea, Ohio 44017

Ed Wolf Imports
1750 Hayden Avenue
East Cleveland, Ohio 44112

J. & B. Motors Inc.
7710 Superior Avenue
Cleveland, Ohio 44103

Bedford Toyota
333 Broadway
Bedford, Ohio 44146

Hornsby's Parma Sports Cars
5411 Brookpark Road
Parma, Ohio 44129

Lossman Motor Sales
17710 Detroit Avenue
Lakewood, Ohio 44107

Swedish Cards of Cleveland
280 Broadway
Bedford, Ohio 44146

BIBLIOGRAPHY

- Arnold, Walter M. Vocational, Technical and Continuing Education in Pennsylvania, A Systems Approach to State-Local Program Planning. (Harrisburg, Pennsylvania: Pennsylvania Department of Public Instruction, 1969).
- Attitudinal Instrument, "Vocational Trade and Industrial Education Attitude Scale." (University Park, Pennsylvania: The Pennsylvania State University, Department of Industrial Education, n.d.)
- Burkett, Lowell A. "Latest Word from Washington," American Vocational Journal, December, 1972.
- "Career Opportunities in Automotive Service," Standards for Automotive Service Instruction in Secondary Schools (Detroit, Michigan: Automobile Manufacturers Association, Inc., 1965).
- Davis, Harry F. Private telephone conversation, January 22, 1973.
- Employers and Young Adults Look at Vocational Education, Ohio Advisory Council for Vocational Education, Columbus, 1973.
- Eninger, Max U. The Process and Product of T&I High School Level Vocational Education in the United States: The Product. Pittsburgh: American Institutes for Research, September, 1965. (Microfiche).
- Evans, Rupert N. School for Schooling's Sake: The Current Role of the Secondary School in Occupational Preparation (Champaign, Illinois: Illinois University, June, 1968).
- Facts for Study (Detroit, Michigan: Automobile Manufacturers Assn., n.d.).
- Games, Paul A., and Klare, George R. Elementary Statistics: Data Analysis for the Behavioral Sciences (New York: McGraw-Hill Book Co., 1967).

- Lewis, Morgan V. and Kaufman, Jacob J. "The Role of the Secondary Schools in the Preparation of Youth for Work" (Paper presented to a session of the annual convention of the American Vocational Association, Denver, Colorado, December 8, 1966).
- Lewis, Wiley B. Review and Analysis of Curricula for Occupations in Transportation (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, December, 1970).
- Little, J. Kenneth. Review and Synthesis of Research on the Placement and Follow-Up of Vocational Education Students (Columbus, Ohio: ERIC Clearinghouse, The Center for Vocational and Technical Education, February, 1970).
- Manpower (Washington, D. C.: U. S. Department of Labor, Manpower Administration, June, 1973).
- Marshall, Patricia. "Vocational Education Today," Manpower, November, 1972.
- McDonald, Paul. Private telephone conversation, March 1, 1973.
- Miles, Guy H. Final Report on Preliminary Phase: Effects of Vocational Training and Other Factors on Employment Experience (Minneapolis: North Star Research and Development Institute, April 30, 1966).
- 1972 Automobile Facts and Figures (Detroit, Michigan: Motor Vehicle Manufacturers Association of the U. S., Inc., n.d.).
- Popham, W. James. Educational Statistics (New York: Harper and Row, Publishers, 1967).
- Prosser, Charles A. and Quigley, Thomas H. Vocational Education in a Democracy. (Revised Edition - Chicago: American Technical Society, 1957).
- Rhodes, James A. Alternative to a Decadent Society (New York: Howard W. Sams and Co., 1969).
- Richardson, Elliott L. Work in America: Report of a Special Task Force to the Secretary of Health, Education and Welfare (Cambridge, Massachusetts: The MIT Press, n.d.).

- Stuart, Stephen D. "An Exploratory Study to Analyze New Skill Content in Selected Occupations in Michigan and the Mechanism for its Translation into Vocational Education Curricula, Final Report." (Columbus, Ohio: Battelle Columbus Laboratories, July, 1972).
- Teepie, John, and Kenadjian, Berd J. "The Implications of Job Opportunities in Transportation for Priorities in Vocational-Technical Education," A working paper (Washington, D. C. : U. S. Department of Health, Education and Welfare, Office of Education, September, 1969).
- U. S. Department of Labor. 1972 Manpower Report of the President: New Perspectives on Youth Employment (Washington, D. C. : Government Printing Office, 1972).
- Warmbrod, J. Robert. Review and Synthesis of Research on the Economics of Vocational-Technical Education (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, November, 1968).
- Wenig, Robert E., and Wolansky, William D. Review and Synthesis of Literature on Job Training in Industry (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, June, 1972).
- Zannella, Phillip. Private telephone conversation, February 15, 1974.