

DOCUMENT RESUME

ED 082 000

CE 000 244

AUTHOR Frankel, Steven M.; And Others
TITLE Replication Handbook; An Assessment of
School-Supervised Work Education Programs.
INSTITUTION System Development Corp., Santa Monica, Calif.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Office
of Planning, Budgeting, and Evaluation.
REPORT NO SDC-TM-5195-002-00
PUB DATE 14 Sep 73
CONTRACT OEC-0-72-5024
NOTE 145p.; For related documents see CE 000 241, CE 000
242, and CE 000 243

EDRS PRICE MF-\$0.65 HC-\$6.58
DESCRIPTORS Cooperative Education; Dropout Prevention; *Guides;
On the Job Training; *Program Administration; Program
Development; Program Planning; Research Design;
Resource Guides; *Vocational Education; *Work
Experience Programs; *Work Study Programs
IDENTIFIERS *Work Education Evaluation Project

ABSTRACT

The purpose of this document is to provide educational researchers and administrators with the material needed to replicate the study, Assessment of School-Supervised Work Education Programs, within a sphere of interest limited geographically, vocationally, or in other functional ways. The procedures used to carry out this study and produce its products are briefly described. Included are sections on establishing the advisory committee, conducting a literature search, obtaining program nominations from individuals, designing and distributing a preliminary questionnaire, developing a typology and selecting programs for intensive study, designing interview schedules, collecting data, processing data, and planning and conducting the data analysis activities. The complete set of products developed for the project is described and included. (MS)

ED 082000

66

SYSTEM DEVELOPMENT CORPORATION

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

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

REPLICATION HANDBOOK AN ASSESSMENT OF SCHOOL-SUPERVISED WORK EDUCATION PROGRAMS

STEVEN M. FRANKEL, Ed.D
CLEONE L. GEDDES
EMILY H. ALLISON

14 SEPTEMBER 1973

"PERMISSION TO REPRODUCE THIS COPY-
RIGHTED MATERIAL HAS BEEN GRANTED BY

Steven M. Frankel

Steven M. Frankel
TO ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE NATIONAL IN-
STITUTE OF EDUCATION. FURTHER REPRO-
DUCTION OUTSIDE THE ERIC SYSTEM RE-
QUIRES PERMISSION OF THE COPYRIGHT
OWNER."

TM-5195/002/00

E000 244



REPLICATION HANDBOOK AN ASSESSMENT OF SCHOOL-SUPERVISED WORK EDUCATION PROGRAMS

**STEVEN M. FRANKEL, Ed.D
CLEONE L. GEDDES
EMILY H. ALLISON**

14 SEPTEMBER 1973

THE WORK REPORTED HEREIN WAS PERFORMED PURSUANT TO CONTRACT NO. OEC-0-72-5024 WITH THE U. S. OFFICE OF EDUCATION, OFFICE OF PLANNING, BUDGETING AND EVALUATION, WASHINGTON, D.C. 20201. THE OPINIONS EXPRESSED HEREIN ARE THOSE OF THE AUTHORS AND SHOULD NOT BE CONSTRUED AS REPRESENTING THE OPINIONS OR POLICY OF ANY AGENCY OF THE UNITED STATES GOVERNMENT.

THIS DOCUMENT HAS NOT BEEN CLEARED FOR OPEN PUBLICATION.

TM-5195/002/00

ACKNOWLEDGMENTS

The System Development Corporation staff for this study of work education programs is very grateful to the hundreds of people including students, program coordinators, school administrators, employers and union personnel who aided in accomplishing the work reported in this document. We are especially grateful to the coordinators who gave of their time to facilitate the site visits.

We were fortunate to have the service of an Advisory Committee that helped define the study and carry out specific tasks for us. The members of the Advisory Committee were Dr. Wanda Kay Baker, Dr. Trudy Banta, Mr. John Burnell, Mr. Samuel Burt, Dr. Larry Davenport, Dr. George Ebey, Mr. Arthur Humphrey, Jr., Dr. Jacob Kaufman, Dr. William Morris, Dr. Harry Silberman, Dr. Douglas Towne, and Mr. Francis Parker Wilber.

Ms. Mary Ann Millsap, the original Project Officer from the U.S. Office of Education was very helpful with her guidance, cooperation and assistance; and Ms. Dorothy Shuler, who took over as Project Officer near the conclusion of the study was very helpful, along with Mr. Edward Nelson and Ms. Marion Craft of USOE, in critiquing the final set of documents.

LIST OF PROJECT PUBLICATIONS

- Banta, Trudy, Steven Frankel, Sylva Bowlby, and Cleone Geddes. A Topical Bibliography of Work Education Programs, Projects and Procedures. System Development Corporation, Santa Monica, Ca., 1973, 124 p. (Technical Memorandum-5086/000/00)
- Cohen, Alan, and Steven Frankel. Data Analysis Report, An Assessment of School-Supervised Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 270 p. (Technical Memorandum-5195/001/00)
- Frankel, Steven. Executive Summary, An Assessment of School-Supervised Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 19 p. (Technical Memorandum-5195/003/00)
- Frankel, Steven, and Alan Cohen. Selection Procedures Report. System Development Corporation, Santa Monica, Ca., 1973, 27 p. (Technical Memorandum-5061/000/00)
- Frankel, Steven, Emily Allison, and Cleone Geddes. Case Studies of Fifty Representative Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 338 p. (Technical Memorandum-5195/000/00)
- Frankel, Steven, Alan Cohen, and Mary Ann Millsap. A Directory of Representative Work Education Programs. To be published by the Government Printing Office for the U.S. Office of Education in Fall 1973, 327 p.
- Frankel, Steven, Cleone Geddes, and Emily Allison. Replication Handbook, An Assessment of School-Supervised Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 140 p. (Technical Memorandum-5195/002/00)

STAFF MEMBERS

Dr. Steven M. Frankel, Director
 Ms. Cleone L. Geddes, Assistant Director
 Mr. Alan J. Cohen, Statistician
 Ms. Emily H. Allison, Editorial Supervisor
 Ms. Jan L. Hatch, Data Transcription Supervisor and Project Secretary

INTERVIEWERS

Mr. Robert Bishop
 Mr. Jac Pratt
 Mr. Douglas Robertson
 Mr. Ray Tillery
 Ms. Jacquelyn Troup

TABLE OF CONTENTS

	<u>Page</u>
Acknowledgments	i
List of Project Publications	ii
I. Introduction.	1
II. Methodology	3
A. Advisory Committee.	3
B. Literature Search	6
C. Program Nominations	7
D. Design and Distribution of the Questionnaire "Characteristics of Work Education Programs," for Preliminary Site Selection.	7
E. Development of Typology and Program Selection	11
F. Design of the Interview Schedules	13
G. Data Collection	14
1. Regional Coordination Meetings.	14
2. Training of Interviewers.	15
3. Site Visits	16
H. Data Processing	16
I. Data Analysis	17
III. Products.	19

LIST OF FIGURES

	<u>Page</u>
1. Characteristics of Work Education Programs Questionnaire	9

	<u>Page</u>
Appendix A. Operational Definitions and Preliminary Classification Typology.	A-3
Appendix B. Sample of Form Letter Sent to Chief State School Officers	B-3
Letter to Other Key People Requesting Program Nominations.	B-5
Appendix C. Form Letter Sent to Directors of Nominated Programs	C-3
Appendix D. Interview Schedules.	D-3
Appendix E. Sample of Notification Letter.	E-3
Appendix F. Work Education Programs.	F-3
Background of Work Education Study, An Assessment of School-Supervised Work Education Programs	F-5
Student, Employer and Union Sampling Procedures.	F-11
Site Coordinator's Check List.	F-15
Interview Team Assistance Form	F-17
Tentative Student Interview List	F-19
Work Education Project Travel Plan	F-21
Appendix G. An Assessment of School-Supervised Work Education Programs: Data Analysis Plan.	G-3

I. INTRODUCTION

The study, *An Assessment of School-Supervised Work Education Programs*, was conducted for the Office of Planning, Budgeting and Evaluation (OPBE) of the U.S. Office of Education (USOE) by System Development Corporation (SDC) to examine the different configurations of work education programs which currently exist in the United States; to determine to what degree the different types of programs are meeting their intended objectives; and to suggest ways in which different types of programs might be modified or expanded. For the purposes of this study, work education refers to a variety of arrangements in which students work at paying jobs at the same time that they are attending school, with the school responsible for the students' work experiences.

In 13 months, the project team produced the following products:

- A set of 50 case studies of work education programs which the project team studied in depth.
- A statistical analysis report based on more than 2,300 detailed interviews conducted at the 50 program sites.
- A bibliography of work education references with approximately 1,000 citations.
- A directory describing the basic characteristics of approximately 550 work education programs with which this project made contact.
- Seven interview schedules.
- Numerous working papers including a selection procedures report, two OMB clearance packages, a data analysis plan and a sampling plan.
- An executive summary report.
- A replication handbook.

The purpose of this document is to provide educational researchers and administrators with the material needed to replicate this study, in part or in whole, within a more limited sphere of interest. These spheres of interest

might be limited geographically (e.g. replicate the entire study for a single city or State), vocationally (e.g. replicate the study looking only at automotive mechanics programs), or in several other functional ways (e.g. examine only career education programs or only programs operating at the postsecondary level).

In addition to providing researchers with the material needed to replicate the study, the information contained in this document can facilitate totally diverse uses. Thus, the typology might be used in a study with entirely different objectives or it might be used to organize a bibliography. Similarly, some of the questions on the student interview schedules might be used by a high school guidance counselor for determining what certain youngsters do with their time when they are not attending school.

In the Methodology section, the procedures used to carry out this study and produce its products are briefly described. Included are sections on establishing the advisory committee, conducting a literature search, obtaining program nominations from individuals, designing and distributing a preliminary questionnaire, developing a typology and selecting programs for intensive study, designing interview schedules, collecting data, processing data and planning and conducting the data analysis activities. The complete set of products developed by the project staff is described in Section III.

The attached appendixes contain excerpts from the actual project documents. Copies of complete documents are available through the Office of Planning, Budgeting and Evaluation of the U.S. Office of Education.

II. METHODOLOGY

The researchers approached the required information collection and interpretation with the following steps:

- Establishing working relations with officials, organizations, and other information sources and an advisory committee.
- Collecting and analyzing existing information on the identity and characteristics of successful or noteworthy programs.
- Developing a preliminary typology plus a list of key features of programs to be studied.
- Developing and distributing a brief mail questionnaire to collect additional data on key program features.
- Refining the typology and the list of features and classifying all identified programs.
- Establishing a sample of 50 programs for intensive data collection.
- Designing and pretesting interview schedules to be used for gathering information on 50 programs.
- Collecting detailed information on the features and conduct of the 50 work education programs.
- Processing the data to prepare it for entry into a machine-readable data base.
- Analyzing the data.

Each of these operations is described in the following pages.

A. Advisory Committee

The project advisory committee was instrumental in providing advice, suggesting plans for the project and soliciting support. It consisted of national authorities in the field of vocational education. The members were:

Dr. Wanda Kay Baker

Dr. Baker is an educational sociologist specializing in minority group relations.

Dr. Trudy Banta

Dr. Banta is a faculty member at the University of Tennessee and is the co-author, with Dr. Douglas Towne, of Job Oriented Work Education Programs for the Disadvantaged.

Mr. John Burnell

Mr. Burnell is the Director of the New York City Central Labor Council (AFL-CIO). In this capacity he has had a great deal of input into work education programs operating in New York City. He is particularly knowledgeable regarding work education programs for the disadvantaged.

Mr. Samuel Burt

Mr. Burt is the author of numerous publications and has an extensive background in the theory and practice of work education. He is special assistant to the Dean of the College of Continuing Education at American University.

Dr. Larry Davenport

Dr. Davenport is Chairman of the National Advisory Council for Vocational Education and Vice President of Tuskegee Institute.

Dr. George Ebey

Dr. Ebey was the director of an evaluation of work education programs funded by the State of California for the 1970-1971 school year. He is the director of a research and consulting organization, George Ebey Associates, and has evaluated and operated many different types of vocational education programs.

Mr. Arthur Humphrey, Jr.

Mr. Humphrey is presently a staff member of the National Institute of

Education's Employer Based Career Education project. Formerly he was responsible for administering several work education programs for the Chase Manhattan Bank.

Dr. Jacob Kaufman

Dr. Kaufman is a Professor of Economics and Director of the Institute on Human Resources at the Pennsylvania State University.

Dr. William Morris

Dr. Morris is a consultant in evaluation in vocational education and is under contract to the Office of the Chancellor of the California Community Colleges. His area of specialization is postsecondary work education programs.

Dr. Harry Silberman

Dr. Silberman is a Professor in the School of Education at the University of California at Los Angeles. He was formerly Associate Commissioner in the U.S. Office of Education.

Dr. Douglas Towne

Dr. Towne is Director of Vocational, Technical, and Instructional Products for the Northwest Regional Laboratory for Education. He has done extensive research and instructional development in both the areas of work education and career education.

Mr. Francis Parker Wilber

Mr. Wilber is President Emeritus of Los Angeles Trade-Technical College, one of the largest and most advanced postsecondary technical training institutions in the United States.

The committee was responsible for developing a series of operational definitions defining the types of programs to be examined, defining operational units within program sites to be subjected to intense scrutiny, assisting in the development of the classification typology (Appendix A) and approving the project sampling plan.

Individual members of the advisory committee were used as consultants in other phases of the project. Thus, Dr. Jacob Kaufman, Dr. George Ebey, and Dr. Harry Silberman developed some of the interview schedules; and Dr. Trudy Banta was the principal author of the work education bibliography.

B. Literature Search

In order to establish a background on work education programs, to gather pertinent information on the characteristics of desirable work education programs and to identify noteworthy programs of possible interest to the study a search of the professional literature was conducted to identify citations and abstracts pertaining to work education.

The primary tool used was SDC's automated retrieval system SDC/ERIC. This is an educational information search service which interactively retrieves document citations and abstracts from the ERIC data base and from other current educational materials stored in SDC's large-scale, time-shared computer in Santa Monica. Several searches were made using appropriate descriptors and terms related to work education. The resulting collections of abstracts were then checked by a researcher, and a list of potential programs was compiled. Also, literature pertinent to the background of the study was secured and examined. In addition to the ERIC search, a comprehensive search was made at the UCLA Library of the Education Index, Dissertations Abstracts, Readers Guide to Periodical Literature and the Business Periodical Index. With the resulting information and that provided by the USOE Project Officer, a card file was constructed, summarizing all citations of potential

use in the project. The listing in this file provided the foundation of the publication, SDC-TM-5086/000/00, A Topical Bibliography of Work Education Programs, Projects and Procedures, a product of the study described in Section III.

C. Program Nominations

To supplement the list of programs revealed by the literature search, Chief State School Officers, Directors of Secondary Vocational Education, Directors of Community Colleges, Education Directors of the State Chambers of Commerce, the Presidents and Executive Secretaries of the Advisory Committees for Vocational Education, Superintendents of Education in the Great Cities, and consultants of national repute were sent letters (Appendix B) asking them to recommend programs which they felt were representative of a diversity of work education programs with which they were acquainted. In response to these letters, names of more than 1,000 programs were submitted to the project staff.

Once these program names were received, the director of each program was sent a letter (Appendix C) describing the study and was asked to complete the questionnaire described below to provide information which could be used as a basis for determining the 50 programs around which case studies would be developed.

D. Design and Distribution of the Questionnaire "Characteristics of Work Education Programs", for Preliminary Site Selection

Guided by the constraints of the study, the project staff designed the questionnaire, "Characteristics of Work Education Programs" (Figure 1) to be sent to nominated programs in order to obtain sufficient information to determine whether or not the program met the requirements of the study and to enable the program to be placed in the appropriate cell of the program typology from which the sample of programs would be drawn for more intensive

Figure 1. Characteristics of Work Education Programs Questionnaire (1 of 2)

Please return this Questionnaire to: Ms. Cleone Geddes System Development Corporation 2500 Colorado Avenue Santa Monica, California 90406		OMB NO. 51-S 72051 APPROVAL EXPRES: June 1973	
CHARACTERISTICS OF WORK EDUCATION PROGRAMS (For a Study Sponsored by the U.S. Department of Health, Education and Welfare, Office of Education)			
1. Program identification information:			
a. Program name _____			
b. Program Director's name, address, phone number _____ _____			
c. Name of school(s) where program is in operation _____			
d. District name, address, and phone number _____ _____			
e. Name of district superintendent or college president _____			
2. Are most of the students in your program paid for the work they do at the job sites? a. <input type="checkbox"/> Yes b. <input type="checkbox"/> No If answer to this question is no and program is not in health occupations, return form to above address without completing questionnaire.	3. Was this program in operation during the 1971-72 school year and will it continue to be in operation during the 1972-73 school year? a. <input type="checkbox"/> Yes b. <input type="checkbox"/> No c. <input type="checkbox"/> Not Sure If answer to this question is no, return form to above address without completing questionnaire.	8. In which occupational areas are students in your program working? (Check all answers that apply)	
		a. <input type="checkbox"/> Agriculture (food production, agricultural mechanics, forestry, etc.)	
		b. <input type="checkbox"/> Distributive education (advertising, sales, retail buying, etc.)	
		c. <input type="checkbox"/> Health occupations (nursing, medical technician, rehabilitation, etc.)	
		d. <input type="checkbox"/> Occupational home economics (food management, home decorating, etc.)	
		e. <input type="checkbox"/> Office occupations (bookkeeping, typing, programming, etc.)	
		f. <input type="checkbox"/> Technical occupations (engineering related technology, pilot training, etc.)	
		g. <input type="checkbox"/> Trade and industrial occupations (appliance repair, aircraft maintenance, construction, etc.)	
		IF NOT SURE OF THE CATEGORIES INTO WHICH CERTAIN OCCUPATIONS SHOULD BE PLACED, PLEASE LIST THE NAMES OF THOSE OCCUPATIONS BELOW. _____	
4. This study is especially concerned with programs in which the school, as opposed to the employer, is the agency primarily responsible for determining the specific objectives of the program, evaluating the degree to which the objectives are being met, and having the final say as to the type of work experiences to which the students are exposed at the job site. Does your program meet these constraints? a. <input type="checkbox"/> Yes b. <input type="checkbox"/> No (please explain) _____			
5. At which education level does this program operate? a. <input type="checkbox"/> Secondary level b. <input type="checkbox"/> Post secondary, prebaccalaureate level c. <input type="checkbox"/> Other (please explain) _____			
6. The primary purpose of the program is to: (please check only one answer)			
a. <input type="checkbox"/> Train students to work in a specific occupational area.			
b. <input type="checkbox"/> Familiarize students with the world of work and/or different occupational areas (e.g., career exploration).			
c. <input type="checkbox"/> Prevent the student from dropping out of school through income supplements, removal of student from the traditional classroom for part of the day, etc.			
d. <input type="checkbox"/> Other (please explain) _____			
7. Check the statements below which accurately describe your program. (Check all answers that apply)		9. Approximately what percentage of the students in your program represent minority ethnic or racial groups (e.g. Blacks, chicanos, Oriental, American Indian, etc.)? _____ %	10. Approximately what percentage of the students in your program are physically handicapped? _____ %
a. <input type="checkbox"/> Job related instruction is not a component of this program.		11. What percentage of the students in your program are female? _____ %	12. Are any students under the age of 16 in your program and working for pay? a. <input type="checkbox"/> Yes b. <input type="checkbox"/> No
b. <input type="checkbox"/> The school provides job-related instruction at the job site.			
c. <input type="checkbox"/> The school provides job-related instruction in the school building.			
d. <input type="checkbox"/> The employer provides job-related instruction at the job site.			
e. <input type="checkbox"/> Other arrangement for job-related instruction (please explain). _____			
13. Which of the following best describes the industrial setting (25 mile radius) in which your school district is situated?			
a. <input type="checkbox"/> Farming region			
b. <input type="checkbox"/> Bedroom community with only light industry			
c. <input type="checkbox"/> Community whose economy is heavily dependent upon a single industry (other than farming)			
d. <input type="checkbox"/> Major industrial/business center			

Figure 1. Characteristics of Work Education Programs Questionnaire (2 of 2)

14. Job sites to which students are assigned are located:

a. On school property

b. In businesses off school property

c. Other (please explain) _____

15. Which statement best approximates the relationship between time spent in the classroom and time spent at the job site by students in your program?

a. More than 80% of time spent in the classroom

b. 75% of time spent in the classroom and 25% of time spent at job site

c. 50% of time spent in the classroom and 50% of time spent at job site

d. 25% of time spent in the classroom and 75% of time spent at job site

e. More than 80% of time spent at the job site

16. Which statement best approximates the relationship at the job site between time spent in on-the-job training (OJT) and time spent actually working independently on assigned tasks?

a. More than 80% of time at job site devoted to OJT

b. 75% of time at job site devoted to OJT and 25% of time to independent work

c. 50% of time at job site devoted to OJT and 50% of time to independent work

d. 25% of time at job site devoted to OJT and 75% of time to independent work

e. More than 80% of time at job site devoted to independent work

17. Please indicate the types of personnel included in your program staff by checking the appropriate boxes.

	None	Available when needed	Part-time position	Full-time position
Non-teaching program administrator/coordinator				
Program administrator/coordinator with teaching responsibilities				
Guidance/career counselor				
Job placement specialist				
Probation/corrections specialist				
Psychologist/psychiatrist				
Program recruiter				
Instructor or teacher paid by school				
Instructor or teacher paid by employer				
Other (please explain) _____				
Other (please explain) _____				

Much of the information supplied on this form will be included in a Directory of Self-described Work Education Programs to be published in February, 1973. If there is any information which you do not wish to have included in this Directory, or if you do not want your program included in this Directory, please list your requirements below.

18. In addition to support made available to your program from the usual sources (parent institution, school district, state government, federal government, local taxes), please indicate the types of support made available to your program from other sources by checking the appropriate boxes.

Industry	Funds	Capital equipment	Facilities	Consumable supplies	Personnel	Books
Labor unions						
Foundations						
Student tuition & fees						
Other _____						

19. Are employers participating in your program reimbursed for a portion of their training and student salary expenses?

a. No

b. Yes (please list the reimbursable expenses) _____

20. Do students in your program receive school credit for the time spent at the job site?

a. Yes b. No

21. What is the 1972-73 enrollment in your school? _____

district? _____

22. What was the approximate number of students in the program during the 1971-72 school year? _____

23. What is the program enrollment for the 1972-73 school year? _____

24. Approximately what percentage of the students completing your program during the 1971-72 school year found jobs in the occupational field in which they worked while in your program?

a. _____

b. Do not know

c. Placement is not a program objective

25. What is the extent of union participation in the work portion of the program?

a. No union within occupational work site.

b. Unionized work site but no active union participation in program.

c. Unionized work site with active union participation in program.

d. Unionized work site with union taking primary responsibility for program.

26. Using the space allocated below, please provide us with a brief summary of the most important features of your program. Be sure to include information pertaining to particularly innovative or interesting facets which set your program apart from others.

study. The questionnaire was pretested at a Job Corps site and a local school and revised. It was then submitted for OMB clearance which is required for all data collection instruments used on this type of government sponsored project.

Upon receipt of program nominations, personalized letters were prepared on an IBM magnetic tape selectric typewriter (MTST) and sent to each program director notifying him that his program had been nominated as being of possible interest to the educational community at large (see Appendix C). Copies of the questionnaire along with the letters of explanation were sent to the approximately 1,000 nominated programs. After a 2-week period, telephone calls were made to follow up and request the cooperation of sites which had not replied. Over 600 questionnaires were returned from the 50 States and several territories. Of these, 550 were determined to meet the requirements of the study (e.g., being in existence for at least 1 year and, with the exception of clinical programs, having a work-for-pay component). Data from the questionnaires were transcribed to forms, keypunched and inserted into a computer data base.

E. Development of Typology and Program Selection

While a preliminary typology was developed early in the project with the assistance of the Advisory Committee (see Appendix A), it was deemed advisable to delay final structuring of the typology until it was possible to examine the descriptive program information secured from the preliminary questionnaire. Using both existing computer programs and new ones developed for this purpose, the data were sorted and several different selection matrix configurations were examined. In addition to totals for the different matrix configurations, the system described the key characteristics and identified each program within each cell of the matrix.

After extensive manipulations, six factors were isolated for incorporation into the program selection process:

- Factor A - Educational level
 - Secondary
 - Postsecondary
 - Other (junior high, combined secondary-postsecondary, Job Corps)
- Factor B - Primary purpose
 - Training in specific occupational area
 - Career exploration
 - Dropout prevention
 - Other
- Factor C - Industrial setting of community in which program operates
 - Farming region
 - Bedroom community
 - Single industry (except farming)
 - Major industrial/business center
- Factor D - Active labor union participation in program
 - Yes
 - No
- Factor E - Especially significant for some particular reason (mandatory inclusion)
- Factor F - Geographic location of program
 - 10 USOE regions

Each of the responding programs was fitted into a matrix whose dimensions were factors A, B and C. This matrix served as the basic sampling frame for selection of the 50 sites to be subject to intensive study.

There were 33 cells in the matrix into which the universe of programs fell. To insure the widest possible range of sites in terms of the basic factors, one program was chosen from each cell. Then an additional program was selected from each of the 14 cells that contained at least 11 cases, one program was selected from the largest cell, one mandatory program was included and the 50th selection was used to correct geographic imbalance. A more complete description of the selection process was published in SDC TM-5061/000/00,

A useful byproduct was produced as a result of the program selection process. The data which had been assembled in a computer data base was reformatted and produced as a directory. The document, A Directory of Representative Work Education Programs, will be published by the Government Printing Office for USOE in the Fall of 1973. It contains a listing of over 550 work education programs currently underway in the United States. It was felt that the directory when used in conjunction with its indexes and its table of contents, would prove a valuable source of identifying programs with particular features, and in developing a better understanding of the wide breadth of program configurations operating in the work education field.

F. Design of the Interview Schedules

Three members of the Advisory Committee, Dr. George Ebey, Dr. Jacob Kaufman, and Dr. Harry Silberman, participated with the project staff in the initial design of the interview instruments. As models, the group used questionnaires which they and other members of the Advisory Committee supplied from studies with which they were familiar or had conducted. Separate schedules were designed for structured interviews with students, employers, union representatives, and school personnel participating in work education programs and for nonparticipating students, employers and union representatives. All of the interview guides except for the student forms (participating and nonparticipating) were designed to be used in one-to-one interview situations. The student forms were designed to be used in group interview situations. A total of seven schedules were designed:

- Schedules I - Program Information - Parts A & B
- II - Participating Students
- III - Nonparticipating Students
- IV - Participating Employer
- V - Nonparticipating Employer
- VI - Participating Union
- VII - Nonparticipating Union

The interview schedules were pretested at three California program sites: A high school in Los Angeles County, a regional occupational center in Orange County, and a junior college in Orange County. One administrator, three students, and one employer were interviewed at each site. Any questions which appeared ambiguous or were too difficult during the pretests were revised or replaced with different questions. Several additional questions were added after "holes" in the flow of inquiries were discovered, and redundant questions were eliminated.

After pretesting and making revisions, the interview schedules were submitted to the Office of Management and Budget (OMB) for clearance. The OMB Package as it is referred to, contained the required OMB form, copies of each interview schedule and supporting statements to justify their utilization and contents. Copies of the final type version of the interview schedules as approved may be found in Appendix D.

G. Data Collection

After the 50 programs had been selected for the study and all interview forms had been cleared through OMB, preparation for data collection activities began.

1. Regional Coordination Meetings

The program director of each of the 50 programs was sent a letter (Appendix E) notifying him that his program had been selected for the study and inviting him or a designated site coordinator to a regional meeting in which the study would be described more fully and the coordinator's role would be explained. A short time later, each program director was contacted by telephone to confirm his participation in the study, to answer any questions and to make the necessary arrangements for his travel to the nearest one of three regional meetings. In attendance at each regional meeting were one or more project staff members and a member of the interview team for that region. A site

coordinator's package was distributed to each person attending. This package (refer to Appendix F) contained: A list of Work Education Programs chosen for the study; a short description of the study, Background of Work Education Study, An Assessment of School-Supervised Work Education Programs; Student, Employer and Union Sampling Procedures; the Site Coordinator's Check List; a Tentative Student Interview List; an Interview Team Assistance Form; a Work Education Project Travel Plan; a copy of the Selection Procedures Report (SDC TM-5061/000/00); and a copy of Schedule I, Program Information, Parts A & B (see Appendix D).

The program directors were requested to complete Schedule I, Part A, and return it to SDC at least 10 days before the site visit was scheduled to occur. They were given Part B in preparation for the interview team's visit at which time it would be completed. Finally, the site coordinators were asked to schedule appointments for the 2-day visit by the two-member interview team. Both members of the team were to be present at the interview with the program administrator and/or coordinator; the junior member of the team was to conduct both participating and nonparticipating student group interviews at different times, while the senior member of the team was conducting employer and union interviews at their places of business.

2. Training of Interviewers

All interview team members were assembled for a 2-day workshop to familiarize them with the project, to provide them with background information, and to review all interview forms and procedures for conducting the site interviews.

Each interviewer was subjected to a series of role playing activities in which each assumed the role of a coordinator, a participating and nonparticipating student or employer, and/or a union representative. These sessions were videotaped and each team member was critiqued as to his effectiveness as an interviewer as he watched himself perform on the playback monitor. Students from the local area also participated as interviewees.

Interview forms were assembled and shipped to program directors 2 weeks before a team's scheduled arrival, but as a precautionary measure, each team carried a supplemental set.

3. Site Visits

Interviews were conducted over a 2-month period by four interview teams consisting of two members each. Each team spent 2 days at their assigned sites to interview project personnel, participating and nonparticipating students, participating and nonparticipating employers and union personnel where they were involved in the running of programs.

The project personnel (program directors or coordinators, and school administrators) were interviewed by both team members on the first day at the site, followed by student interviews (conducted by one team member in classrooms or general assembly areas), and the employer and union interviews (conducted in most cases at the employer's place of business or the union local).

Interviews for the 50 sites selected for study were conducted in 32 states. In scheduling the extensive travel for the four interview teams, the Official Airline Guide was found to be very helpful. Also the information provided by each coordinator on the Interview Team Assistance Form (see Appendix F), was invaluable in facilitating reservations and orienting the interview teams to the different sites.

H. Data Processing

Upon completion of site visits, interviewers assembled to transcribe their notes and all information collected on the field survey instruments. The data fields were defined, and categories were established for classification of open-ended responses. Team members then transcribed the information for the sites they visited onto coding sheets in preparation for keypunching. At

this time, they also telephoned sites as necessary in order to fill in missing data or to resolve apparent inconsistencies. After insertion into the computer data base, the data were edited and processed using special programs. These editing programs examined the information within individual data fields and printed out any data values which were missing or inconsistent with standards which had been established for each field. While this procedure cannot account for all input errors it can catch the most damaging types of errors.

During the course of the interviews, much anecdotal and marginal material was obtained which could not be translated for computer analysis. To place the data in perspective, and present a picture of the setting for each work education program, case studies of each were developed. A format was established and each interview team was responsible for the writeup of all the sites it visited. This included 10-13 sites for each team. The case studies were reviewed for accuracy and completeness and where necessary, program personnel were again contacted by telephone to verify certain details or supply missing information. In one case, a second visit was made to a site where a great deal more information was required. The compilation of case studies was published as a separate document, Case Studies of Fifty Representative Work Education Programs, SDC TM-5195/000/00, September 14, 1973.

I. Data Analysis

The document, An Assessment of School-Supervised Work Education Programs: Data Analysis Plan, as developed for this project, is included in its entirety in Appendix G. The complete plan presents the dependent, independent and intervening variable groups for the program, student, and employer data bases, their expected structural interrelationships, and the modes of analysis used.

A single set of statistical analysis programs, the Statistical Package for the Social Sciences (SPSS), developed by Norman Nie, Dale H. Bent, and C. Hadlai Hull proved equal to the task of doing nearly all of the analysis

called for by the data. The package provides very clear and readable output in all of its procedures. The statistical procedure was equally useful because of its powerful data editing manipulation capabilities. SPSS was supplemented by custom programs developed by the project's statistical programmer on an as-needed basis.

III. PRODUCTS

This study was structured around the production of a set of documents. A brief description of the contents and purpose of these products other than this document is listed below.

Frankel, Steven, Emily Allison, and Cleone Geddes. Case Studies of Fifty Representative Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 388 p. (Technical Memorandum-5195/000/00)

This publication provides readers with a summary for each site pertaining to each program's history, organization, goals, student and faculty composition, work environment and mode of operation. Also included are discussions of the success which has been enjoyed by each program; unusual features inherent in the program or its operation, problems faced by the program with the methods by which staff members are attempting to alleviate these difficulties and miscellaneous impressions formed by the SDC interview team.

Cohen, Alan, and Steven Frankel. Data Analysis Report, An Assessment of School-Supervised Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 270 p. (Technical Memorandum-5195/001/00)

This report contains the empirical findings based on results from the student, program, employer and union data. Also this report contains recommendations for further study and a summary of the key findings.

Frankel, Steven, Alan Cohen, and Mary Ann Millsap. A Directory of Representative Work Education Programs. To be published by the Government Printing Office for the U.S. Office of Education in fall of 1973, 327 p.

This document contains information describing 550 work education programs currently underway in the United States. The contents of the directory were supplied by program directors and the respondents to the initial questionnaires Characteristics of Work Education Programs (referred to earlier), after their programs were nominated for inclusion in the study.

Frankel, Steven. Executive Summary, An Assessment of School-Supervised Work Education Programs. System Development Corporation, Santa Monica, Ca., 1973, 19 p. (Technical Memorandum-5195/003/00)

The executive summary contains highlights of the final report and is designed for use by persons primarily interested in principal findings and the overall methodology of the study.

Frankel, Steven, and Alan Cohen. Selection Procedures Report. System Development Corporation, Santa Monica, Ca., 1973, 27 p. (Technical Memorandum-5061/000/00)

This report describes the selection procedures which were used to identify the 50 program sites which were visited by interview teams. It also contains a listing of site data which was used in the selection process.

Banta, Trudy, Steven Frankel, Sylva Bowlby, and Cleone Geddes. A Topical Bibliography of Work Education Programs, Projects and Procedures. System Development Corporation, Santa Monica, Ca., 1973, 124 p. (Technical Memorandum-5086/000/00)

This document contains a collection of approximately 900 different bibliographic citations of work education programs which is the end result of the literature search for the project. This collection of references is extremely useful to other researchers and school personnel concerned with work education and vocational education.

A-1
(page A-2 blank)

APPENDIX A
OPERATIONAL DEFINITIONS AND PRELIMINARY
CLASSIFICATION TYPOLOGY

OPERATIONAL DEFINITIONS

Work Education Programs: This umbrella term describes a variety of arrangements whereby students are involved in the real work environment. It includes the cooperative student who is being paid for his services, the work study student who is receiving financial support to continue his studies, and the clinical student who is learning skills in an on-the-job environment. For the purposes of this study, only programs in which students are being paid (with the single exception of clinical programs in the health occupations field in which students may or may not be paid) will be included in this study.

School Supervised Work Education Program: A work education program where:

- a. The school determines the specific objectives of the program and is responsible for determining the degree to which these objectives are being met.
- b. The school directs the learning or real work experiences (work-study programs which do not meet this constraint will still be included).
- c. All participants are currently enrolled students in the educational institution which is operating the program.

Program Site: An entity within a single school which is structured to meet a single type of program intent (either training for a specific career cluster, career exploration/familiarization, or dropout prevention) and which, in most cases, operates within a single occupational cluster. In the case of career exploration/familiarization programs and programs aimed at dropout prevention, a group of diversified work experiences may be substituted for the single occupational cluster requirement.

PRELIMINARY CLASSIFICATION TYPOLOGY

The Project Advisory Committee and the SDC project staff members developed the following preliminary classification typology:

EDUCATIONAL LEVEL

Post secondary
prebaccalaureate
programs

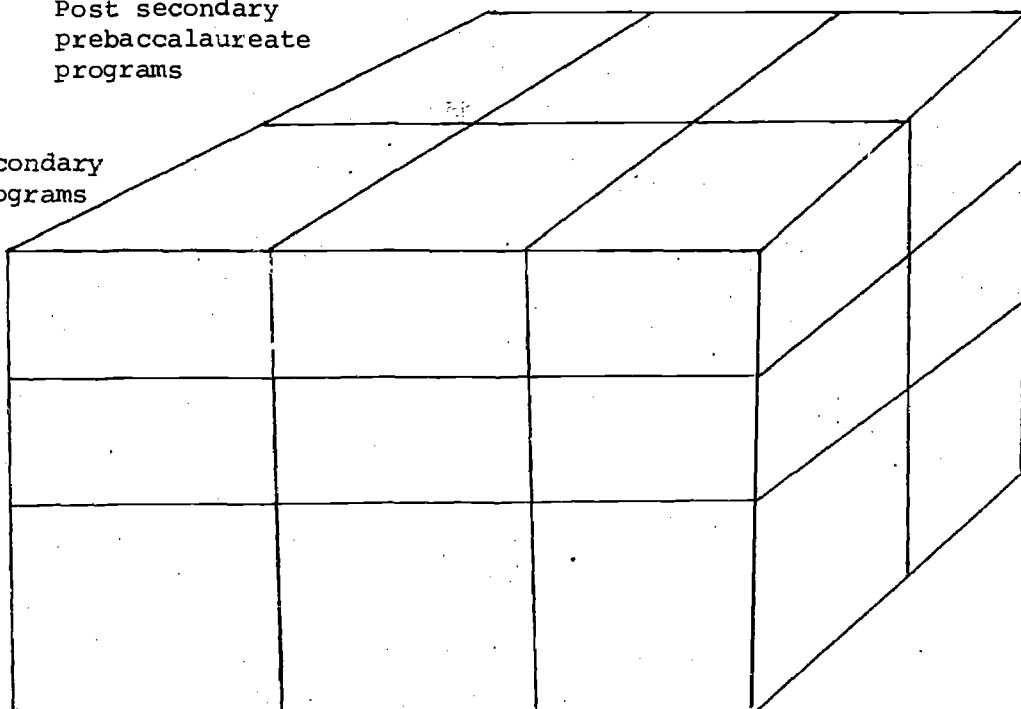
Secondary
programs

PRIMARY INTENT

Training for specific
occupational clusters

Career exploration/
familiarization

Dropout prevention
(thru income supple-
ment), lessening of
disciplinary inci-
dents, removal from
traditional class-
room, etc.)



School control
of instruction
at job site

Joint School-
employer con-
trol of in-
struction at
job site

No job
related
instruction

INSTRUCTIONAL ENVIRONMENT

Other factors which might have been included in the typology (ratio of work experience/formal instruction, occupational cluster, secondary programs allowing under 16 enrollees, geographic location, etc.) will instead be listed as program features and will be used to a limited degree in the process by which individual program sites will be selected from different cells of the matrix in order to arrive at the final total of 50 program sites.

B-1
(page B-2 blank)

APPENDIX B

SAMPLE OF FORM LETTER SENT TO CHIEF STATE SCHOOL OFFICERS

AND

LETTER TO OTHER KEY PEOPLE REQUESTING PROGRAM NOMINATIONS



B-3

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

OFFICE OF EDUCATION

WASHINGTON, D.C. 20202

August 14, 1972

Dear Superintendent

In June of this year, the Office of Program Planning and Evaluation initiated the study, An Assessment of School-Supervised Work Education Programs, under contract with System Development Corporation (OEC-0-72-5024). The study is part of the FY 1972 Evaluation plan and the scheduled USOE data collection activities for FY 1973, as approved by the Committee on Coordinating Education Information of The Chief State School Officers.

Work education programs cover a variety of arrangements whereby students are involved in real work environments. The primary objectives of the programs include training for specific occupational areas, familiarization with the world of work and/or different occupational areas, and dropout prevention through income maintenance or other means.

The purpose of this study is to systematically examine a variety of promising secondary and postsecondary (prebaccalaureate) programs to determine successful program components, to delimit constraints on program expansion, and to determine the feasibility to expand work education programs and the necessary conditions under which expansion of various program types is possible.

To accomplish this purpose, State officials and local program personnel as well as representatives of industry and unions will be asked to recommend work education programs for consideration for inclusion in the study. After recommendations have been compiled and programs contacted, a directory of programs classified by type will be assembled for distribution. Fifty programs will be selected for in-depth case study consisting of interviews with program staff and students as well as interviews with participating and non-participating employers and unions. At the conclusion of the 15 month contract, a handbook and final report containing the case

B-4

studies and assessment of program characteristics, operating constraints and conditions for program expansion will be distributed widely.

Within the next few days, System Development Corporation will be sending you a letter outlining in more detail the scope of this study and the types of programs we would like to consider as well as the procedures for nominating programs. Other State officials, local program personnel and representatives of industry and labor are also being queried to assure the greatest breadth in nominations.

We are looking forward to including programs from your State in this study. If you have any questions about the study or wish additional information, please do not hesitate to contact me on 202-963-7568.

Sincerely yours,



Mary Ann Millsap
Office of Program Planning
and Evaluation

MAM:lje

SDC SYSTEM DEVELOPMENT CORPORATION

2500 Colorado Avenue, Santa Monica, California 90406

September 11, 1972

Dear

In June of this year, the U. S. Office of Education, Office of Program Planning and Evaluation initiated the study, An Assessment of School-Supervised Work Education Programs, under contract with System Development Corporation (SDC). The study is part of the FY 1972 evaluation plan and the scheduled USOE data collection activities for FY 1973. SDC is currently in the process of identifying a large sample of school-supervised work education programs throughout the nation. All of the identified programs will be listed in a Directory of Self-Described Work Education Programs to be published by USOE. Fifty of the programs will also be selected for intensive examination for the purpose of (1) identifying program components that are worthy of replication, (2) recommending incentives and policy changes that will serve to increase union and employer participation, and (3) determining the feasibility of expanding work education programs of various types through new congressional appropriations.

The USOE Project Officer for this effort, Ms. Mary Ann Millsap, has provided SDC with your name as one of the persons to be contacted to recommend noteworthy work education programs to be included in the Directory. She feels that, because of your key position, you would be an ideal contact person to make us aware of interesting and innovative work education programs of different types currently underway in your state at the educational level (secondary, post secondary, etc.) for which you are responsible. We are asking you to suggest up to ten work education programs that represent a broad range of the types operating within your area of responsibility. For this project, the term "work education program" refers to a variety of arrangements which involve students in the real work environment. It includes cooperative programs in which students are paid for work directly related to their vocational training, work-study programs designed to provide students with financial support to continue their studies, clinical training programs, and exploratory programs with a work-for-pay component. We can consider only programs that are primarily school-supervised, that operate at the secondary or post secondary (but prebaccalaureate) level, that compensate students for their work (with the exception of clinical programs in the medical field), and that have been in operation for at least one year.

Among the types of programs we are looking for are those:

- aimed at training students for specific occupational clusters, those providing career exploration/familiarization opportunities, or those aimed at dropout prevention (through income supplement or other means)
- offering single or multiple occupational choices
- differing in size (number of employers and students)
- serving urban, suburban or rural schools
- characterized as traditional in organization and concept or those that might be considered innovative
- with unusually high placement rates

We are especially interested in programs which incorporate features that would interest vocational educators planning new programs. To a lesser degree, we are interested in obtaining a list of programs encompassing a broad spectrum of career fields. In short, we hope the programs you recommend will be representative of the diverse types with which you are acquainted.

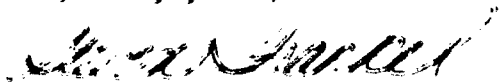
For each program you nominate as a suitable subject for the Directory please indicate:

- the school district
- the name and address of the school in which the program operates
- the name of the school principal or program director
- a brief (one or two sentence) description of why this particular program is of interest

Upon receipt of the program nominations we will send a brief questionnaire to the local administrator of each program seeking additional information to aid in its classification and in the final selection of 30 programs for intensive study. The Directory of Self-Described Work Education Programs will be compiled from returned questionnaires and should be available by February, 1973.

As the quality of the Directory will be directly proportional to the amount of thought and effort which persons like yourself devote to the nomination process, we will greatly appreciate whatever assistance you will be able to give us. Should you have any questions regarding the project or your requested role, please call the Assistant Project Director, Ms. Cleone Geddes, or myself, at (213) 393-9411, Ext. 7143. Thank you for your cooperation.

Very truly yours,



Steven Franfel, Ed.D
Director, Work Education
Project

C-1
(page C-2 blank)

APPENDIX C

FORM LETTER SENT TO DIRECTORS OF
NOMINATED PROGRAMS

SDC SYSTEM DEVELOPMENT CORPORATION

2500 Colorado Avenue, Santa Monica, California 90406

Date

Name
 Address
 City, State, Zip

Dear

In June of this year, the Office of Program Planning and Evaluation of the U.S. Office of Education initiated a study entitled An Assessment of School-Supervised Work Education Programs, under contract with System Development Corporation (SDC). As part of this study, SDC is compiling a Directory of Self-Described Work Education Programs to be published by USOE in February, 1973 and distributed nationally. Fifty of the programs will also be selected for intensive examination for the purpose of (1) identifying program components that are worthy of replication, (2) recommending incentives and policy changes that will serve to increase union and employer participation, and (3) determining the feasibility of expanding work education programs of various types through new congressional appropriations.

The project staff at SDC is collecting data for the Directory. We have examined the literature, consulted national directories, and requested nominations from State and local school officials and representatives of industry and labor. Your program has been identified as one that should be included in the Directory, since it incorporates features of interest to vocational educators and to representatives of industry and labor concerned with promoting work education.

We would greatly appreciate it if you would provide the information requested in the enclosed questionnaire in order that we may include your program in the Directory. This information will also be used to select programs that we may visit in order to develop detailed case studies to aid USOE in planning for new ways of supporting work education programs.

Would you please complete the questionnaire and return it to us in the postage-paid envelope by November 20. If your program covers more than one school or district, one specific segment of the program operating at one school should be selected for description. If you do not wish your program to receive the publicity that inclusion in the Directory might generate, make a note to that effect on the questionnaire as part of your answer to question 27. Should you have any questions regarding the project or your requested role, please call the Assistant Project Director, Ms. Cleone Geddes, or myself, at 213/393-9411, extension 7143. Thank you for your cooperation.

Very truly yours,

Steven Frankel, Ed.D.
 Director, Work Education Project

D-1
(page D-2 blank)

APPENDIX D
INTERVIEW SCHEDULES

OMB No. 51-S-72055
Approval Expires: September 1973

Group Code _____

Program _____

Institution _____

Date _____

Interviewer _____

SCHEDULE I
PROGRAM INFORMATION - PART A

Note to Respondent: As explained in our meeting, would you please complete these forms and return them to Cleone Geddes, System Development Corporation, 2500 Colcrado Avenue, Santa Monica, California 90406.

Official Title of Program _____

1. Name of Respondent _____

2. Title of Respondent _____

3. Telephone Number _____
Area Code Number Extension

4. What is your responsibility for work education programs in the school or district?

5. Please give the following information for your school and district:

SCHOOL

DISTRICT

a. Name _____

g. Name _____

b. Address _____

h. Address _____

c. School Telephone _____

i. District Office Telephone _____

d. Chief Administrator _____

j. Chief Administrator _____

e. Program Administrator _____

k. Approx. No. of Students _____
in entire district

f. Approx. No. of Students _____
in entire school

6. Approximately how many students are in this work education program in your school at present? _____
7. What are the student eligibility requirements for this program (e.g. restricted to vocational education majors, assigned to program on basis of financial need, a regular part of the automotive technology program, etc.)?
- _____
- _____
- _____

8. Please list the general occupational fields in which students in your school's program work and give the number of students in each.

OCCUPATIONAL FIELD	NUMBER OF STUDENTS
a. Agriculture (food production, agricultural mechanics, forestry, etc.)	_____
b. Distributive education (advertising, sales, retail buying, etc.)	_____
c. Health occupations (nursing, medical technician, rehabilitation, etc.)	_____
d. Occupational home economics (food management, home decorating, etc.)	_____
e. Office occupations (bookkeeping, typing, programming, etc.)	_____
f. Technical occupations (engineering related technology, pilot training, etc.)	_____
g. Trade and industrial occupations (appliance repair, aircraft maintenance, construction, etc.)	_____

(use separate sheet if more room is needed)

IF NOT SURE OF THE CATEGORIES INTO WHICH CERTAIN OCCUPATIONS SHOULD BE PLACED, PLEASE LIST THE NAMES OF THOSE OCCUPATIONS BELOW AND THE NUMBER OF STUDENTS IN EACH.

9. Please list the kinds of jobs (e.g., keypunch operator, sales person, mechanic, etc.) to which students in your school's program are assigned and give the number of students assigned to each type.

JOB	NUMBER OF STUDENTS
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(use separate sheet if more room is needed)

10. Please list the other schools or districts in which this program is operating.

SCHOOL	DISTRICT
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(use separate sheet if more room is needed)

11. What is the organization and staffing for your school's program? (Please provide information on the items below.)

a. In your school, what is the title of the person to whom you report? (attach current organization chart if available)

b. What are the job titles, number and responsibilities of school personnel in your school's program?

<u>Job Title</u>	<u>Number</u>	<u>Responsibilities</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

c. Academic preparation and experience of program staff in your school.

<u>Job Title</u>	<u>Average Years College</u>	<u>Average Years Voc. Exp.</u>	<u>Minimum Years College</u>	<u>Minimum Years Voc. Exp.</u>

(use separate sheet if more room is needed)

12. a. Does your district have a written policy on work education that affects your school's program?

Yes No

b. If yes, please attach a copy.

13. Have you developed general goals of measurable program objectives for your school's program this year (e.g., number of enrollments, completions, placements in program, quality of job slots, full-time employment placements, etc.)?

Yes No

If yes, please list below or provide a copy of any written statements.

14. a. Is this program a line item in your school's budget?

Yes No

If yes, please give the amount budgeted for the following years:

b. 1970-1971 _____

c. 1971-1972 _____

d. 1972-1973 _____

15. Please indicate the sources of support that have financed this school's program. (please check all that apply.)

- | | | |
|---|---|--|
| <input type="checkbox"/> Federal Government | <input type="checkbox"/> Parent Institution | <input type="checkbox"/> Foundations |
| <input type="checkbox"/> State Government | <input type="checkbox"/> Industry | <input type="checkbox"/> Student Tuition or Fees |
| <input type="checkbox"/> Local Taxes | <input type="checkbox"/> Labor Unions | <input type="checkbox"/> Other (specify) _____ |

16. If Federal funding was checked above, please indicate the Federal source (e.g. 1968 Amendments to Vocational Education Act, Part G; Neighborhood Youth Corps in School, WECEP, etc.).

17. Please identify two employers who were asked to participate in this work education project in your school but refused to do so. Please provide the following information and then proceed to question 19. If less than two employers refused to participate, go to question 18.

a. EMPLOYER #1 _____

b. Address and telephone number _____

c. Name and position of person approached (if known) _____

d. Employer's occupational field _____

e. Titles of positions in which students might have been placed _____

- a. EMPLOYER #2 _____
- b. Address and telephone number _____

- c. Name and position of person approached (if known) _____

- d. Employer's occupational field _____
- e. Titles of positions in which students might have been placed _____

18. Please name two local employers who, to your knowledge, have never been asked to participate in your school's program but might be asked to do so in the future. (Do not answer this question if two employers were named above.)

- a. EMPLOYER #1 _____
- b. Address and telephone number _____

- c. Name of General Manager (if known) _____
- d. Employer's occupational field _____
- e. Titles of positions in which students might be placed _____

- a. EMPLOYER #2 _____
- b. Address and telephone number _____

- c. Name of General Manager (if known) _____

- d. Employer's occupational field _____
- e. Titles of positions in which students might be placed _____

19. a. Have you ever contacted a union about participating in this program?

Yes No

b. If yes, did you ever receive a refusal?

Yes No

c. If so, please list the name of the local, the approximate date of the refusal and the name and address of the person contacted.

20. Please complete the following chart (as shown in the example) on the employers and unions affiliated with your school's program. If there are more than 4 employers, please list those employing the largest number of students.

EMPLOYER	EMPLOYER'S OCCUPATIONAL FIELD	EMPLOYER CONTACT (Address & Phone)	TITLES OF POSITIONS IN WHICH STUDENTS ARE PLACED	COOPERATING UNION (Name, Address, and Telephone Number of Shop Stewart)	NUMBER OF STUDENTS AT THIS LOCATION
Example: ABC Corporation	dress manufacturing	J. Watson General Manager 1410 Green Street Los Angeles, CA (213) 692-1111	Sewing Machine Operator	ILGWU, Local 42 John James 1200 Blue Street Los Angeles, CA (213) 782-5311	14

OMB No. 51-S-72055
Approval Expires: September 1973

Group Code _____
Program _____
Institution _____
Date _____
Interviewer _____

INTERVIEW SCHEDULE I
PROGRAM INFORMATION - PART B

1. Name of Respondent _____
2. Title of Respondent _____
3. Telephone Number _____

Area Code	Number	Extension

Instructions to Interviewer: If respondent has not already been briefed, describe the purpose of the project briefly and identify the program you are studying at that institution. The respondent should understand that whenever the term program is used, unless otherwise modified, the term refers to the work education program under study.

4. How long has your program been in operation? _____ years
5. How long have you been with the program? _____ years
6. Are you a full-time employee of the school or district?
 - a. Yes
 - b. No
 - c. If no, how many hours per week do you work part-time? _____
7. a. What part of your time is allocated to this work education program? _____ %
 b. If less than 100%, what are your other functions?

8. Who took the initiative in organizing this program in your school? (Check only one)

<input type="checkbox"/> School	<input type="checkbox"/> Union
<input type="checkbox"/> Employer	<input type="checkbox"/> Other (specify) _____

Please explain. _____

9. How many students are enrolled in the program in this school? _____

10. Were you able to accept all students who applied?

Yes No

11. Was your planned enrollment

a. Met?

Not Met?

Exceeded?

b. By how much?+ _____

12. a. How many students were enrolled last year? _____

b. The year before? _____

13. What enrollment do you anticipate next year? _____

14. What is the breakdown of time in school and time on the job for a typical student enrolled in your program?

15. What is the teacher-student ratio in the program at school? _____

16. a. Please describe how you advertise to recruit students for your school's program.

b. What are the student eligibility requirements for your school's program?

17. Have some students dropped out or been terminated this year?

a. Yes No

b. If yes, how many? _____

c. What were the reasons for their leaving?

18. As a basis for evaluating student performance, have you written measurable learner objectives for your program?

a. Yes No

b. If yes, please discuss. (To interviewer: obtain copy if available)

19. Do you have a system and forms for recording student progress in your program?

a. Yes No

b. If yes, please describe. (To interviewer: obtain printed materials)

20. In your judgment, has your program influenced some students to remain in school rather than drop out?

Yes No Don't know

(To interviewer: if yes, obtain evidence if possible)

21. What influence has your program had on:

a. Student absenteeism:

b. tardiness?

c. Grades?

d. motivation?

e. Other student problems? (specify)

22. What procedures do you use for reviewing and modifying your program?

23. Do you have arrangements for articulating your program with the same or similar programs of other schools or districts in your area?

a. Yes No

b. If yes, with which organizations? _____

c. For what purposes? _____

24. Are students receiving job-related instruction in school?

a. Yes No

b. If yes, what instructional methods and procedures (e.g., lectures, programmed instructions, supervised shop or laboratory experience, etc.) are used to relate the instruction to the working experience?

25. Do you have special provisions in your school's program for the "disadvantaged" (i.e., academic, socioeconomic?)

a. Yes No

b. If yes, what are the special provisions?

26. Do you have special provisions in your school's program for handicapped students?

a. Yes No

b. If yes, what are the special provisions?

27. What provision is made for counseling the work education students in your program?

28. Do you consider the organization and staffing of your program effective for the achievement of your program goal and objectives?

a. Yes No

b. If no, how could the situation be improved?

29. Do you consider the following aspects of your school's program adequate?

- a. Job slot development? Yes ___ No ___
- b. Counseling? Yes ___ No ___
- c. Recruitment of students? Yes ___ No ___
- d. Placement of students Yes ___ No ___
- e. If no, how could each area be improved?

30. Do you have an organized follow-up program to evaluate job success of former students of your school's program?

- a. Yes No

b. If yes, please describe.

31. In what ways do you promote and communicate information on your program to others in the school and community? (To interviewer: consider items like news media, radio, TV, personal appearances.)

32. Do you have inservice education opportunities such as a conference budget and curriculum development funds for professionals and paraprofessionals in your program?

- a. Yes No

b. If yes, what are they?

33. Do you have provisions for the inservice program education (e.g. conferences, seminars, courses) for work station supervisors responsible for on-the-job training?

a. Yes No

b. If yes, what are the provisions?

34. Does your school, district or any government agency compensate employers for operating this program?

a. Yes No

b. If yes, how?

35. Does your school, district or any government agency directly compensate or reimburse any enrollees in your program?

a. Yes No

b. If yes, what are the amount per hour and the provisions for compensation?

36. Please describe the facilities used by your school's program.

What are their?

Good Features	Inadequacies
School training facilities:	
a.	b.
Work facilities	
c.	d.

37. Do you have suggestions for the improvement of the on-the-job training by work station supervisors?

a. Yes No

b. If yes, what are your suggestions?

38. Do you have an advisory committee to your program?

a. Yes No

b. What groups, organizations or professions are represented?

c. How often does it meet? _____/year

d. What is its role?

39. Are there other work education programs in your school?

a. Yes No Don't know

b. If yes, what are they and approximately how many students does each serve?

c. If don't know, from whom can I obtain this information? _____
(To interviewer: obtain from other person. This list should provide an indication of emphasis on work education in general.)

40. What procedures do you follow for making arrangements with employers for work placement of students?

41. Do you conduct any job placement activities for students who have completed the program?

a. Yes No

b. If yes, please describe and indicate what percentage of students who graduated from this program last year were placed through your placement program? _____ %

42. Do you maintain placement records?

a. Yes No

b. If yes, what was the total percentage of students who graduated from this program last year who were placed in positions related to their training (with or without the assistance of your placement officer)? _____ %

If no, what was the estimated percentage of students who graduated from this program last year who were placed in positions related to their training (with or without the assistance of your placement officer)? _____ %

43. What kinds of support (financial, equipment, personnel) have employers made available to the program?

44. Have employers raised obstacles that have hindered the program?

a. Yes No

b. If yes, explain.

45. Do employers screen the students in any manner?

a. Yes No

b. If yes, please explain.

46. Have unions raised obstacles that have hindered the program?

a. Yes No

b. If yes, please explain.

47. Have any students in your school's program been involved in serious industrial accidents this year or last year?

a. Yes No

b. If yes, please indicate how many and what types.

48. Please list the main reasons for the degree of success that has been achieved by your school's program.

49. Please list problems that still remain to be resolved.

50. If asked to name the most interesting and unusual feature of your school's program, what would it be?

51. On a 5-point scale from poor to excellent, with 1 for poor and 5 for excellent, please rate the program on each of the following:

- a. Enthusiasm of students a.
- b. Enthusiasm of teachers b.
- c. Quality of on-the-job supervision c.
- d. Adequacy of facilities d.
- e. Relating of classroom work to on-the-job training e.
- f. Relevance of training to real-world working conditions f.
- g. Cooperation of employers g.
- h. Cooperation of unions h.
- i. Intellectual ability of students in their field i.
- j. Vocational skills of students at beginning of program j.
- k. Vocational skills of students at end of program k.
- l. Quality of training materials l.
- m. Recruitment of students m.
- n. Job success of students in the program n.
- o. Counseling o.
- p. Placement of students completing program p.
- q. Follow-up on former students q.
- r. Job success of students completing program r.
- s. Coordination and direction s.
- t. Use of advisory committee t.
- u. Articulation with similar programs in other institutions and districts u.
- v. Overall quality of program v.
- w. Administration's support of this program w.
- x. Administration's commitment to work education in general x.

	1	2	3	4	5	Excellent	Don't know	Not applicable
a.								
b.								
c.								
d.								
e.								
f.								
g.								
h.								
i.								
j.								
k.								
l.								
m.								
n.								
o.								
p.								
q.								
r.								
s.								
t.								
u.								
v.								
w.								
x.								

OMB No. 51-S-72055
Approval Expires: September 1973

Group Code _____

Program _____

Institution _____

Date _____

Interviewer _____

SCHEDULE II
PARTICIPATING STUDENT

NOTE TO STUDENT: NONE OF THIS INFORMATION WILL BE SHARED WITH YOUR SCHOOL OR EMPLOYER.

1. Name _____

2. School Attending _____

3. Grade _____

4. Expected Graduation Date _____

5. Are you: (Check only one in each column)

a. Male

b. Married

c. White

Female

Single

Black

Divorced,
Separated,
Widowed,
etc.

Oriental

Spanish Descent (Chicano,
Puerto Rican, etc.)

Other (specify) _____

6. Date of Birth _____
 month day year

7. What is your school major? _____

8. About how much did you earn in the past 12 months before taxes? \$ _____ total

9. What category best classifies your overall school standing by way of grades?

A (90 +)

C (70-80)

F (below 60)

B (80-90)

D (60-70)

10. What was your main reason for joining this program? (Check only one)

- a. Needed work for pay
- b. Bored with school
- c. Wanted training for job
- d. Wanted to sample occupations
- e. School policy
- f. Other (specify) _____

11. Who first told you about the program?

- a. Teacher or principal
- b. Counselor
- c. Parent or relative
- d. Friend
- e. Employer
- f. Newspaper
- g. Poster
- h. Other (specify) _____

12. How many months have you been working in the program? _____ months.

13. Did you ever discuss your course and occupational choices with a guidance counselor?

- a. Yes No
- b. If yes, how helpful do you think these discussions were?
 - Very helpful
 - Somewhat helpful
 - Not at all helpful

14. How often are you supposed to go to your work assignment?

- a. Every day
- b. On alternate days
- c. On alternate weeks - every day
- d. On alternate weeks - alternate days
- e. Other (specify) _____

15. How many hours a week are you supposed to work at your job? _____ hours.

16. How many hours are you in regular school classes every week? _____ hours.

17. Are you paid for your work?

a. Yes No

b. What is your hourly pay? \$ _____/hour.

c. What was your beginning hourly pay? \$ _____/hour.

18. What is the main use you make of this money? (Check one)

a. Contribute to support of parent's family

b. Support myself (rent, food, etc.)

c. Spending money (dates, car, clothes, etc.)

d. Savings

e. Other (specify) _____

19. Do you have any other part time work?

Yes No

20. Do you work during the summer?

Yes No

21. Do you spend more than four hours each week participating in a single extra curricular school activity or in a community activity such as the football team, drama group, service club, church group, etc?

a. Yes No

b. If yes, what activity? _____

How many hours per week? _____

22. Do you feel that your work interferes with any of the activities below?
(Check all that apply)

a. Schoolwork

f. Other (please specify) _____

b. Social life

g. None of the above

c. Chores at home

d. Sports activities

e. Hobbies

- 23. Has the work education program helped you to decide on an occupation?
 Yes No
- 24. How closely is your work related to your classwork?
 - a. Very closely
 - b. Somewhat
 - c. Not at all
- 25. On the whole, does this job fit in well with your overall job and career interests?
 - a. Fits very well
 - b. Fits moderately well
 - c. Doesn't fit at all
- 26. Did you like school
 - a. Better before you got into program?
 - b. Better after you got into program?
 - c. About the same after as before you got into the program?
- 27. How old were you when you first started working regularly?
 - a. Under 16
 - b. 16-17
 - c. 18-19
 - d. 20 and over
- 28. What is the name of the company you work for? _____
- 29. What does the company you work for make or do? _____
- 30. Do you have formal instruction (classes) at work?
 Yes No
- 31. What is your job title? _____
- 32. What do you do (job description)? _____
- 33. Where have you learned the most about the skills needed for your job?
 - a. At school
 - b. On the job
 - c. Elsewhere (specify) _____

34. Do you expect to find a full time job in the occupation in which you are now working?

Yes No

With the same employer?

Yes No

35. How soon do you expect to get a full time job? _____ months.

36. What do you expect to be doing one year from now?

- | | |
|---|--|
| a. <input type="checkbox"/> Working full time | d. <input type="checkbox"/> Part-time work and part-time study |
| b. <input type="checkbox"/> In school | e. <input type="checkbox"/> Other (specify) _____ |
| c. <input type="checkbox"/> In armed services | f. <input type="checkbox"/> Don't know |

37. Did you work for any other employers in this program?

Yes No

If yes, how many? _____

38. Would you recommend that a friend enter this program?

Yes No

39. What changes would you like to see made in the program? _____

Please give your reasons _____

40. Please check the boxes which best describe your job.

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Are there adults who do the same work as you do?	()	()	()
Do you sometimes take over a job for an adult who isn't there?	()	()	()
Do you usually work alone?	()	()	()
Do you decide how things are done on your job?	()	()	()
Are you doing a tougher job now than when you were first hired?	()	()	()
Was your job difficult to learn?	()	()	()
Do you have to assume new responsibilities before you are ready?	()	()	()
Does your boss often ask your opinion?	()	()	()
Can you do your job without thinking?	()	()	()
Are the regular employees you work with just like you?	()	()	()
Do you learn something new most days on your job?	()	()	()
Does your job get you interested enough in things to try to learn about them after work?	()	()	()
Do you mostly work with adults?	()	()	()
Do a lot of students work with the same adult?	()	()	()
Does your boss know his job?	()	()	()
Do people get very angry at you when you make a mistake?	()	()	()
Does your boss tell you when you do a good job?	()	()	()
Are the adults bossy where you work?	()	()	()
Do you get clear instructions when you need them?	()	()	()
Do you do things off the job with the people you work with?	()	()	()

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Do you ever talk with the people at work about whether your job helps anybody?	()	()	()
Do you ever talk to anyone on the job about your beliefs?	()	()	()
Would you do this job as a volunteer?	()	()	()
Are you working with people you don't like?	()	()	()
Do you get paid less than adults who do the same job?	()	()	()
Are you free to talk and joke around with the people at work?	()	()	()
Do they have to find a replacement for you when you are absent?	()	()	()
Do you have any say in what hours you work?	()	()	()
Could you handle a harder job?	()	()	()
Would you like to quit your job?	()	()	()
Do you often wish you didn't have to go to work?	()	()	()
Do you think your boss would promote you if he could?	()	()	()
Is it easier for you to talk to adults because you had this job?	()	()	()
Have you had many different assignments on this job?	()	()	()

That's the end of our questions for today.

We may need your help again, about a year from now, to complete our survey. At that time we hope you will be willing to complete another questionnaire which will be used to learn what changes have occurred in your life after one year.

We will write you a letter in about a year, with a return postcard in it, to set up a time and place for a new interview. Please give us your name and address, so that we can write to you next year.

Name _____ Social Security # _____
Last First

Present mailing address _____
Street address Apt. no

City State Zip

Present telephone number _____
Area Code Number

Could you give us two addresses and phone numbers of people that might help us contact you next year, in case you have moved? Please list relatives, friends, or other people in the community who know you through church, school, work, etc.

Back-up #1 Name _____

Street address Apt. no

City State Zip

Present telephone number _____
Area code Number

Back-up #2 Name _____

Street address Apt. no

City State Zip

Present telephone number _____
Area code Number

Father's full name _____

Father's address if different from your own _____

Mother's full name _____

Mother's address if different from your own _____

9. Did you ever hear about this work education program before today?

Yes No

If yes, who first told you about the program? (Check one)

- | | |
|--|---|
| a. <input type="checkbox"/> Teacher or Principal | e. <input type="checkbox"/> Employer |
| b. <input type="checkbox"/> Counselor | f. <input type="checkbox"/> Newspaper |
| c. <input type="checkbox"/> Parent or relative | g. <input type="checkbox"/> Poster |
| d. <input type="checkbox"/> Friend | h. <input type="checkbox"/> Other (specify) _____ |

10. Did you ever discuss your course and occupational choices with a guidance counselor?

Yes No

If yes, how helpful do you think these discussions were?

- a. Very helpful
b. Somewhat helpful
c. Not at all helpful

11. How many hours are you in school classes every week? _____ hours

12. Do you spend more than four hours each week participating in a single extra curricular school activity or in a community activity such as the football team, drama group, service club, church group, etc.?

- a. Yes No
- b. If yes, what activity? _____
How many hours per week? _____ hours

13. About how much money did you earn in the past 12 months before taxes? \$ _____ total.

14. Are you working now?

Yes No

15. If you are not working, have you been looking for a job?

- a. Yes No
- b. If yes, for how many months have you been looking? _____ months.

16. What do you expect to be doing one year from now?

a. Working full time

d. Part-time work and part-time study

b. In school

e. Other

c. In armed services

f. Don't know

17. Now that you know of this work education program, are you interested in joining it?

Yes

No

Maybe

18. Why?

PART II

Answer the following questions only if you are now working.

19. For how many months have you been working at your present job? _____ months?

20. What were your main reasons for going to work?

- a. Needed work for pay
- b. Bored with school
- c. Wanted training for job
- d. Wanted to sample occupations
- e. School policy
- f. Other (specify) _____

21. How did you get the job? (Check one)

- a. Employment agency
- b. Teacher or Principal
- c. Counselor
- d. Newspaper want ads
- e. Posted notice
- f. Parent or relative
- g. Friend
- h. Knocked on doors
- i. Sign in window
- j. Other (specify) _____

22. How often are you supposed to go to work?

- a. Every day
- b. On alternate days
- c. On alternate weeks - every day
- d. On alternate weeks - alternate days
- e. Other (specify) _____

23. How many hours to do work at your job every week? _____ hours per week.

24. Are you paid for your work?

- a. Yes No
- b. What is your hourly pay \$ _____ hour.
- c. What was your beginning hourly pay? \$ _____ hour.

25. Where does most of this money go? (Select only 1 answer)

- a. Contribute to support of parent's family
- b. Support myself (rent, food, etc.)
- c. Spending money (dates, car, clothes, etc.)
- d. Savings
- e. Other (specify) _____

26. Do you have any other part time work now?

- Yes No

27. Do you work during the summer?

- Yes No

28. Have you worked for any other employers?

- Yes No

If yes, how many? _____

29. How closely is your work now related to your classwork?

- a. Very closely
- b. Somewhat
- c. Not at all

30. Did you like school

- a. Better before you got your job?
- b. Better after you got your job?
- c. About the same after as before you got your job?

31. How old were you when you first started working regularly?

- a. Under 16
- b. 16-17
- c. 18-19
- d. 20 and over

32. What is the name of the company you work for? _____
33. Do you have formal instruction (classes) at work?
 Yes No
34. What is your job title? _____
35. What do you do (job description)? _____
36. Has your job helped you to decide on an occupation?
 Yes No
37. Do you expect to find a full-time job in the occupation in which you are now working?
 Yes No
38. With the same employer?
 Yes No
39. On the whole, does this job fit in well with your overall job and career interest?
a. Fits very well
b. Fits moderately well
c. Doesn't fit at all
40. Do you feel that your work interferes with any of the activities below? (Check all that apply)
a. Schoolwork
b. Social life
c. Chores at home
d. Sports activities
e. Hobbies
f. Other (specify) _____
41. Where have you learned the most about the skills needed for your job?
a. At school
b. On the job
c. Elsewhere (specify) _____

42. If you were talking with a friend, would you suggest that he (she) get a job like yours with the same company?

Yes

No

43. What changes would you like to see made in your job? _____

Please give your reasons _____

44. Please check the boxes which best describe your job.

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Are there adults who do the same work as you do?	()	()	()
Do you sometimes take over a job for an adult who isn't there?	()	()	()
Do you usually work alone?	()	()	()
Do you decide how things are done on your job?	()	()	()
Are you doing a tougher job now than when you were first hired?	()	()	()
Was your job difficult to learn?	()	()	()
Do you have to assume new responsibilities before you are ready?	()	()	()
Does your boss often ask your opinion?	()	()	()
Can you do your job without thinking?	()	()	()
Are the regular employees you work with just like you?	()	()	()
Do you learn something new most days on your job?	()	()	()
Does your job get you interested enough in things to try to learn about them after work?	()	()	()
Do you mostly work with adults?	()	()	()
Do a lot of students work with the same adult?	()	()	()
Does your boss know his job?	()	()	()
Do people get very angry at you when you make a mistake?	()	()	()
Does your boss tell you when you do a good job?	()	()	()
Are the adults bossy where you work?	()	()	()
Do you get clear instructions when you need them?	()	()	()
Do you do things off the job with the people you work with?	()	()	()

	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Do you ever talk with the people at work about whether your job helps anybody?	()	()	()
Do you ever talk to anyone on the job about your beliefs?	()	()	()
Would you do this job as a volunteer?	()	()	()
Are you working with people you don't like?	()	()	()
Do you get paid less than adults who do the same job?	()	()	()
Are you free to talk and joke around with the people at work?	()	()	()
Do they have to find a replacement for you when you are absent?	()	()	()
Do you have any say in what hours you work?	()	()	()
Could you handle a harder job?	()	()	()
Would you like to quit your job?	()	()	()
Do you often wish you didn't have to go to work?	()	()	()
Do you think your boss would promote you if he could?	()	()	()
Is it easier for you to talk to adults because you had this job?	()	()	()
Have you had many different assignments on this job?	()	()	()

Group Code _____
Program _____
Institution _____
Date _____
Interviewer _____

SCHEDULE IV
PARTICIPATING EMPLOYER

1. Name of Company _____
2. Address _____
3. Name of Respondent _____
4. Title of Respondent _____
5. Phone Number _____

Area Code	Number	Extension
-----------	--------	-----------

Instructions to Interviewer: If respondent has not already been briefed, describe the purpose of the project briefly and identify the program you are studying. The respondent should understand that whenever the term program is used, unless otherwise modified, the term refers to the work education program under study.

BACKGROUND OF COMPANY

6. What are your main products or services?

7. Is this (please check one)
 - a. An independent company
 - b. What is the total number of persons employed by the company? _____
 - c. A division of a larger company
 - d. How many persons are employed by the division? _____

8. In the past year, has the number of employees in the division or independent company (Check one)
- a. Increased
 - b. Decreased
 - c. Remained the same

DESCRIPTION OF PROGRAM

9. How long has your company been participating in this work education program?
_____ months
10. How long have you been connected with the program? _____ months
11. How many students are in the work education program in your company now? _____
12. What has been the average number of students you have served at any one time (students on board on an average day)? _____
13. How many students were served last year? _____
14. Is the number of student placements in the program: (Check one)
- a. Increasing
 - b. Decreasing
 - c. Remaining the same
15. Approximately what percentage of the student trainees in the work education program here represent minority ethnic or racial groups? _____ %
16. What percent of the students are male? _____ %
17. What is the company's organization pattern and staffing for the work education program? (To interviewer: obtain items below.)
- a. What is the title of your immediate supervisor?

 - b. Number, type and title of work education supervisors

 - c. Training and experience of work education supervisors

 - d. Work education supervisor/student ratio

 - e. Supporting services such as program liaison, counseling, placement and follow-up for student in plant

18. What are the goals of the program from the employer point of view?

19. a. Have you developed measurable program objectives for this program this year e.g., number of slots for training, full time placements?

Yes No (If no, go to question 19c)

If yes, what are they?

b. Have you achieved all of these objectives?

Yes No

(To interviewer: obtain specific data)

c. Is the program operating with the intended number of students?

Yes No

d. Could you handle more?

Yes No

20. a. What was the basis for selection of student trainees?

b. Was it satisfactory from your viewpoint?

Yes No

If no, why not?

EVALUATION OF WORK EDUCATION PROGRAM

21. In general, how would you evaluate the program?

- a. Very satisfactory
- b. Satisfactory
- c. Unsatisfactory

22. How could each of the following be improved in the program?

a. School administration

b. Quality of students included

c. Teaching

d. Employer support

e. Union support

23. Does the company plan to continue this program?

- Yes No Don't know

24. Would you recommend this program to other employers?

- Yes No

Why or why not?

25. Would you expand this program?

- Yes No

If not, what adjustments would be necessary to interest you in expanding the program?

26. What would you say is the most unusual feature of the work education program in your plant?

Why?

27. a. Have you had any experience with ~~governmental, educational, or other~~ this program.

- Yes No

If yes, please list program.

28. What problem(s) have you encountered in the conduct of this program?

29. What steps have you taken to resolve the problem(s)?

30. a. What effect has the work education program had on your plant or company safety record? (To interviewer: get specific data)

b. If there have been any serious accidents, please describe briefly

c. Has the company been involved in any lawsuits in connection with the program?

Yes No

If yes, please explain.

31. What percent of the students complete the program?

32. What percent of the students drop out.

Within the first 30 days

After the first 30 days

33. Have any students been involuntarily terminated at your company's request?

- Yes No

If yes, what percent last year? _____ %

34. What were the reasons for students' leaving the program?

a. Voluntary

b. Involuntary

_____	_____
_____	_____
_____	_____

35. What is the average

a. absence rate per trainee? Absent _____ % of the time

b. tardiness rate per trainee? Late _____ % of the time

36. I'm going to show you a list of different types of student gains. For each, rate the amount of improvement for the average trainee.

a. Occupational knowledge (technical, mathematical, sciences, communications)

1. No improvement
2. Little improvement
3. Considerable improvement

b. Manipulative skills (output, quality, job know-how, use of tools and equipment, etc.)

1. No improvement
2. Little improvement
3. Considerable improvement

c. Personal and social qualities (cooperativeness, self-control, reaction to advice and criticism, adaptability)

1. No improvement
2. Some improvement
3. Considerable improvement

d. Work qualities and habits (dependability, safety, attendance, punctuality, industry).

- 1. No improvement
- 2. Some improvement
- 3. Considerable improvement

RELATIONSHIP WITH SCHOOL

37. Who has primary responsibility for each of the following? Describe the employer's functions in each area.

Primary responsibility for:

Employer's Function:

a. Selection of student trainees

1. School

2. Employer

3. Union

b. School Curriculum (job related)

1. School

2. Employer

3. Union

4. No job related school curriculum

c. Teaching (in plant)

1. School

2. Employer

3. Union

4. No teaching in plant

Primary Responsibility for:

Employer's Function:

d. Teaching aids and equipment (on the job)

- 1. School _____
- 2. Employer _____
- 3. Union _____
- 4. No teaching aids or equipment used at job site

e. Teaching aids and equipment (job related for use in school)

- 1. School _____
- 2. Employer _____
- 3. Union _____
- 4. No teaching aids and equipment that are job related are used in school

f. Placement of graduates

- 1. School _____
- 2. Employer _____
- 3. Union _____
- 4. No placement system

38. How would you rate your company's overall relationship with the school?
(Check one)

- a. Excellent
- b. Average
- c. Poor

39. How many times have you or your representatives met with school personnel during the past year? _____

EVALUATION OF TRAINEES

40. How do you evaluate student progress? Please describe procedures. (To interviewer: obtain rating sheets if available)

41. a. Have you hired on a permanent basis any graduates of the program?

Yes No

b. How many in the past year? _____

c. What jobs were they hired for?

d. Were these jobs for which they were trained in the program?

Yes No

GENERAL INFORMATION

42. For what percent of the trainees does your company

a. Guarantee employment? _____ %

b. Provide assistance in finding employment? _____ %

43. Did the employment of these students as regular workers require any adjustments in your hiring standards?

Yes No

If yes, what were they?

44. Did the employment of these students for work education require any adjustments in your hiring standards?

Yes No

If yes, what were they?

45. Do student dress and hair style:

a. Offend other workers? Yes ___ No ___

b. Cause safety problem? Yes ___ No ___

46. Please describe your procedures for training students for the work to which they are assigned.

47. Do you consider these procedures to be fully effective?

Yes No

If not, please explain how they might be improved.

48. Do you provide any special classroom instruction for the student trainees?

Yes No

If yes, please list the subjects covered and whether or not you consider them to be fully effective? If not please explain how they might be improved.

49. Please provide a breakdown of student time by activity at your facility.

<u>Activity</u>	<u>% of Time</u>
a. Observation	_____
b. Classroom training at place of employment	_____
c. Actual work	_____
d. Maintenance	_____
e. Other (please list)	_____

100%

50. What is the average number of work/training hours per student per week? _____

51. Do your supervisors know the trainees are in a "work-education" program when they are assigned?

Yes No

52. Do people supervising or working with student trainees receive any special instruction?

Yes No

If yes, what?

53. How have the regular employees reacted to the company's participation in the work education program and/or hiring of its graduates?

54. Has the exposure of the regular workers to your trainees affected the workers adversely in any way that you have noticed? (e.g. more goofing off, sloppier work habits, etc.?)

Yes No

If yes, specify

55. In what ways (if any) have the regular workers benefited?

56. In what ways (if any) has the company benefited?

57. Has your company expressed a strong commitment to work education in general?

Yes No

If yes, in what ways? (e.g. budgetary support, written statements, public expressions.)

58. a. Are the trainees paid by your company?

Yes No

If yes, what are the pay rates? (To interviewer: obtain compensation schedule for different types of jobs. Also obtain compensation schedule for regular employees in these jobs.)

b. If trainees are not paid, what compensation (if any) is provided?

59. Is your company reimbursed for its participation in the program?

Yes No

If yes, please provide a cost breakdown of reimbursed expenses.

60. Are there expenses which are non-reimbursed?

Yes No

If yes, please provide a cost breakdown of non-reimbursed expenses.

61. Would compensation or increased compensation for non-reimbursed expenses allow you to expand the program?

Yes No

62. Do you consider the on-the-job training facilities as generally adequate?

Yes No

Why or why not?

63. a. Do you have an advisory committee for this program?

Yes No

If yes, what groups or organizations are represented?

b. How often does it meet? _____

c. What is its role?

64. Please describe any unusual features of the program that have not been discussed.

UNION PARTICIPATION

65. Are any of your employees members of a union?

Yes No

66. Are the jobs held by students normally covered by a union contract?

Yes No

67. Are students members of the union?

Yes No

68. Does any union cooperate with you in operating the program?

Yes No

69. If yes, what is the name of the union _____, local _____ and the name and telephone number of:

a. The shop steward? Name _____
Telephone number _____

b. President of the union local? Name _____
Telephone number _____

70. a. Was this union involved in the decision to participate in the work education program?

Yes No

b. At what stage was the union brought in? (e.g. planning, organization, initial operation, later operation.)

71. Please think of the work education students in your employ in terms of their potential as a regular employee and list each in the appropriate category below. List each student's name in the appropriate category below.

<u>Outstanding</u>	<u>Above Average</u>	<u>Below Average</u>	<u>Very Poor</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

72. On a 5-point scale from poor to excellent, with 1 for poor and 5 for excellent, please rate the program on each of the following:

- a. Enthusiasm of students a.
- b. Enthusiasm of teachers b.
- c. Quality of on-the-job supervision c.
- d. Adequacy of facilities d.
- e. Relating of classroom work to on-the-job training e.
- f. Relevance of training to real-world working conditions f.
- g. Cooperation of employers g.
- h. Cooperation of unions. h.
- i. Intellectual ability of students in their field i.
- j. Vocational skills of students at beginning of program. j.
- k. Vocational skills of students at end of program. k.
- l. Quality of training materials. l.
- m. Recruitment of students. m.
- n. Job success of students in the program. n.
- o. Counseling o.
- p. Placement of students completing program. p.
- q. Follow-up on former students q.
- r. Job success of students completing program r.
- s. Coordination and direction s.
- t. Use of advisory committee. t.
- u. Articulation with similar programs in other institutions and districts. u.
- v. Overall quality of program v.
- w. Administration's support of this program. w.
- x. Administration's commitment to work education in general. x.

	1	2	3 Average	4	5 Excellent	Don't know	Not applicable
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							
j.							
k.							
l.							
m.							
n.							
o.							
p.							
q.							
r.							
s.							
t.							
u.							
v.							
w.							
x.							

OMB No. 41-S-72055
Approval Expires: September 1973

Group Code _____

Program _____

Institution _____

Date _____

Interviewer _____

SCHEDULE V
NONPARTICIPATING EMPLOYER

1. Name of Company _____
2. Address _____
3. Name of Respondent _____
4. Title of Respondent _____
5. Telephone _____

Instructions to Interviewer: If respondent has not already been briefed, describe the purpose of the project briefly and identify the program you are studying. The respondent should understand that whenever the term program is used, unless otherwise modified, the term refers to the work education program under study.

BACKGROUND OF COMPANY

6. What are your main products or services? _____
7. Is this
 - a. An independent company
 - b. How many workers are employed by the company? _____
 - c. A division of a larger company
 - d. How many workers are employed by the division? _____
8. During the past year, has the number of employees in the division or independent company been
 - a. Increasing
 - b. Decreasing
 - c. Remaining the same

CONTACT WITH PROGRAM

9. Has your company ever been contacted regarding participation in the _____ work education program?
- a. Yes No (If no, go to question 12)
- b. If yes, number of times? _____
- c. Management level of company person contacted? _____
- d. Please give the name and position of the person (or school) that contacted your company _____

10. Did you participate for any period of time in this work education program or did you decline to participate?
- a. Declined
- Participated
- b. If participated, for how long? _____ months

(To interviewer: If response is "PARTICIPATED", use participation form and ask questions in past tense.)

11. Why did your company decline to participate in the program?
- a. Inadequate explanation of the program.
- b. Adjustments to normal hiring standards would be required
- c. Costs would increase.
- d. Program would have negative effect on morale of other employees
- e. Young persons' attitudes were unsatisfactory
- f. Have had unsatisfactory experience with other types of programs
(Please explain)

- g. Other _____

- h. Other _____

12. Are you currently participating in any other work education program?

Yes No

If yes, please describe (name, school, occupational areas, etc.)

13. a. Have you ever participated in any other programs of this type?

Yes No

If yes, please describe them

b. Have other divisions or subsidiaries of your company participated?

Yes No Don't know

14. a. Do you know other employers who participated in such a program?

Yes No

b. Did their experiences affect your decision not to participate?

Yes No

In what ways?

15. a. Have you ever hired vocational education graduates?

Yes No

If no, why not?

b. If yes, did you find them satisfactory employees?

Yes No

Why or why not?

16. What do you think the schools should do in order to better prepare students for the world of work?

17. a. Do you generally hire young people (under 21)?

Yes No

b. If yes, for what types of jobs?

c. Have they been satisfactory employees?

Yes No

If no, why not?

18. Do you have a training program for new employees?

Yes No

19. Do you have a training program to upgrade existing employees?

Yes No

20. Have you had any contacts with the school system?

Yes No

If yes, for what purposes?

21. Please explain, in your own words, what you understand a work education program to be.

22. Would your company be willing to participate in a work education program?

Yes No

If so, under what conditions? (Check and explain)

a. Changes in program

b. Changes in internal policy which would allow cooperation

c. Changes in federal or state laws which would allow cooperation

d. Other (please specify)

23. Would you anticipate problems in any of the following areas?

- | | | | |
|----------------------------------|-----|----|------------|
| a. Safety | Yes | No | Don't know |
| b. Morale | Yes | No | Don't know |
| c. Quality control | Yes | No | Don't know |
| d. Discipline | Yes | No | Don't know |
| e. Morals | Yes | No | Don't know |
| f. Insurance | Yes | No | Don't know |
| g. Legal | Yes | No | Don't know |
| h. Union | Yes | No | Don't know |
| i. Others (please specify) _____ | Yes | No | Don't know |

24. Which incentives do you think might induce your company to participate if they were initially reluctant to do so?
- a. Total compensation for training experience
 Yes No
 - b. Partial compensation for training experience
 Yes No
 - c. Heavy publicity
 Yes No
 - d. Tax incentives
 Yes No
 - e. Approaches to top management by city political leaders and leading businessmen
 Yes No
 - f. Promise of union cooperation
 Yes No
 - g. Accrediting of your training operation as an educational institution
 Yes No
 - h. Limiting of enrollment to children of present workers
 Yes No
 - i. Limiting of enrollment to students approved by the employer
 Yes No

DESCRIPTION OF PROGRAM

10. How long has your local been participating in this work education program?
_____ months?

11. How long have you been connected with the program? _____ months.

12. Why did the union get involved with this program? _____

13. How many students in the program are members of your local? _____

14. Under what circumstances may students join your union? _____

15. Do such members have voting rights, pay dues, and receive full membership privileges?

Voting Rights		Pay Dues		Full Membership Privileges	
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

16. What is the union's organization pattern and staffing for the work education program? (To interviewer: obtain information on the items below.)

a. What is the title of your immediate supervisor?

b. Number, type and title of work education supervisor

c. Training and experience of work education supervisors

d. Work education supervisor/student ratio

e. Supporting services such as program liaison, counseling, placement and follow-up for student in plant

17. What are the goals of the work education program from the viewpoint of the union?

18. a. Have you developed measurable program objectives for this program this year e.g. number of slots for training, full time placements?

Yes No

If yes, what are they?

b. Have you achieved your objectives?

Yes No

(To interviewer: obtain specific data)

EVALUATION OF WORK EDUCATION PROGRAM

19. In general, how would you evaluate the program?

a. Very satisfactory

b. Satisfactory

c. Unsatisfactory

20. How could each of the following be improved?

a. School administration

b. Quality of students

c. Teaching

d. Employer support

e. Union support

21. Does the union plan to continue its support of this program?

Yes No

22. Would you recommend to another union that it participate in a similar program?

a. Yes No

b. Why or why not?

23. Should the program be expanded?

a. Yes No

b. If not, what adjustments would be necessary to interest your union in the expansion of the program, either in increased number or with other schools?

24. a. What would you say is the most unusual feature of this program?

b. Why?

25. I'm going to show you a list of different types of student gains. For each rate the amount of improvement for the average trainee.

a. Occupational knowledge (technical, mathematical, sciences, communications)

- a. No improvement
- b. Some improvement
- c. Considerable improvement

b. Manipulative skills (output, quality, job know-how, use of tools and equipment, etc.)

- a. No improvement
- b. Some improvement
- c. Considerable improvement

c. Personal and social qualities (cooperativeness, self control, reaction to advice and criticism, adaptability).

- a. No improvement
- b. Some improvement
- c. Considerable improvement

d. Work qualities and habits (dependability, safety, attendance, punctuality, industry.)

- a. No improvement
- b. Some improvement
- c. Considerable improvement

26. a. What problem(s) has the union encountered in the conduct of the program?

b. What steps has the union taken to resolve the problem(s)?

27. Are there any other aspects of the program that you consider unsatisfactory?

a. Yes No

b. If yes, what are they?

28. a. Have some students been involuntarily terminated at the union's request?

Yes No

b. If yes, what percent last year? _____ %

c. What were the reasons for students' leaving?

Voluntary

Involuntary

<u>Voluntary</u>	<u>Involuntary</u>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

29. Have any graduates of the program joined the union?

a. Yes No

b. If yes, what percent? _____ %

30. Does your union provide assistance in finding employment?

- a. Yes No

b. If yes, please describe

31. In your judgment, how do the graduates of the program compare with graduates of other training programs in terms of:

a. Ability on the job

b. Motivation to work

c. Union membership and participation

d. Rate of turnover

e. Promotion

32. How would you rate the union's overall relationship with the school in operating this program?

a. Excellent

b. Fair

c. Poor

33. How many times has a union representative met with school personnel during the past year? _____

34. Do you feel that the union has been participating in the program as actively as it could?

a. Yes No

b. If not, what more could it do?

GENERAL INFORMATION

35. Do student dress and hair style

a. Offend other union members? Yes _____ No _____

b. Cause safety problems? Yes _____ No _____

36. How have union members reacted to the union's participation in the program?

37. Does your union have an apprenticeship program?

Yes No (If no, go to question 40)

38. Are the graduates of the work education program automatically admitted to the apprenticeship program?

a. Yes No

b. If no, how can they become eligible?

39. Do you see any conflicts between the work education program and the apprenticeship program?

a. Yes No

b. If yes, please explain.

40. a. Do other union members know these trainees are in a work education program when they are assigned?

Yes No

b. Do people supervising or working with student trainees receive any special instruction?

Yes No

c. If yes, please describe.

41. What suggestions do you have for the improvement of the program from the viewpoint of your union?

42. a. Has the exposure of the regular workers to the trainees affected the workers adversely in any way that you have noticed (e.g. more complaints, more goofing off, sloppier work habits, etc.)?

Yes No

43. In what ways (if any) have the workers benefited from contact with the students?

44. In what ways (if any) has the union benefited?

45. Has your local had any experience with other governmental training programs?

a. Yes No

b. If yes, please list programs.

c. How does each compare with your experience in the work education program?

46. a. Do you think this program should be expanded?

Yes No

b. Do you think it should be cut back?

Yes No

c. If yes, in what ways?

47. Is your union reimbursed in any way for its participation in the program?

a. Yes No

b. If yes, please give cost breakdown of reimbursed expenses.

48. Has your union incurred any non-reimbursed expenses for the program?

a. Yes No

b. If yes, how much and for what purposes? (Get a cost breakdown.)

49. Would compensation or increased compensation for reimbursed expenses allow you to expand the program?

Yes No

50. Do you consider on-the-job training facilities as generally adequate?

a. Yes No

b. Why or why not?

51. a. Is there an advisory committee for this program?

Yes No

b. If yes, what groups or organizations are represented?

c. How many times a year does it meet? _____

d. What is its role?

On a 5-point scale from poor to excellent, with 1 for poor and 5 for excellent, please rate the program on each of the following:

	1	2	3	4	5	Don't know	Not App!
	Poor		Average		Excellent		
a. Enthusiasm of students a.							
b. Enthusiasm of teachers b.							
c. Quality of on-the-job supervision c.							
d. Adequacy of facilities d.							
e. Relating of classroom work to on-the-job training e.							
f. Relevance of training to real-world working conditions f.							
g. Cooperation of employers g.							
h. Cooperation of unions h.							
i. Intellectual ability of students in their field i.							
j. Vocational skills of students at beginning of program j.							
k. Vocational skills of students at end of program k.							
l. Quality of training materials l.							
m. Recruitment of students m.							
n. Job success of students in the program n.							
o. Counseling o.							
p. Placement of students completing program p.							
q. Follow-up on former students q.							
r. Job success of students completing program r.							
s. Coordination and direction s.							
t. Use of advisory committee t.							
u. Articulation with similar programs in other institutions and districts u.							
v. Overall quality of program v.							
w. Administration's support of this program w.							
x. Administration's commitment to work education in general x.							

9. In the past year, has the active local membership:

- a. Increased
- b. Decreased
- c. Remained the same

CONTACT WITH PROGRAM

10. Has your local ever been contacted regarding participation in the _____ work education program?

- a. Yes No (If no, go to question 13.)
- b. Number of times? _____
- c. Management level of union person contacted? _____
- d. If yes, please give the name and position of person (or school) that contacted your union. _____

11. Did your union participate for any length of time in this program or did you decline to participate?

- a. Declined
- Participated
- b. If participated, for how long? _____ months

(To interviewer: If response is "PARTICIPATED", use participating form and ask questions in past tense.)

12. Why did the union decline to participate in the program?

- a. Inadequate explanation of the program.
 - b. Previous experience with schools unsatisfactory.
 - c. Unsatisfactory relationship with employer.
 - d. Conflicts with union policies. (Which ones?)
-

- e. Cost would be prohibitive.
- f. Would affect morale of other union members.
- g. Young people's attitude unsatisfactory.
- h. Unsatisfactory experience of other unions
- i. Other (specify) _____

13. Is your local currently participating in any other work education program?

Yes No

If yes, please describe (name, school, employer, occupational area, etc.)

14. Has your union ever participated in programs of this type in the past?

Yes No

If yes, please describe them.

15. Do you know of other locals of your union who have participated in such a program?

Yes No

16. Did their experiences affect your decision not to participate?

Yes No

If yes, in what ways?

GENERAL INFORMATION

17. How many young people (under 21) are members of your local? _____ %

18. Under what circumstances may students join your local?

19. Do such members have voting rights, pay dues, and receive full membership priviledges?

Voting Rights	Pay Dues	Full Membership Priviledges
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

20. Do you feel that young people today make good union members?

Yes No

Why or why not?

21. Do you find that young people today have a different attitude toward work than did the young people in the past?

Yes No

If yes, how is it different?

22. Have you had any contacts with the school system?

Yes No

If yes, for what purposes?

23. What do you think the school system should do to better prepare young people for the world of work?

24. Please explain, in your own words, what you understand a work education program to be.

25. Does your union have an apprenticeship program?

Yes No

26. Is this program in conflict with the work education program

Yes No

If yes, please explain.

27. Would you participate (again) in a work education program?

Yes No

If so, under what conditions? (Check and explain)

a. Changes in program

b. Changes in internal policy which would allow cooperation

c. Changes in federal or state laws which would allow cooperation

d. Other (specify) _____

28. Would you anticipate problems in any of the following areas?

- | | | | |
|----------------------------------|-----------|----------|------------------|
| a. Safety | Yes _____ | No _____ | Don't know _____ |
| b. Morale | Yes _____ | No _____ | Don't know _____ |
| c. Quality control | Yes _____ | No _____ | Don't know _____ |
| d. Discipline | Yes _____ | No _____ | Don't know _____ |
| e. Morals | Yes _____ | No _____ | Don't know _____ |
| f. Insurance | Yes _____ | No _____ | Don't know _____ |
| g. Legal | Yes _____ | No _____ | Don't know _____ |
| h. Others (please specify) _____ | Yes _____ | No _____ | Don't know _____ |

29. Now that you are aware of this program, do you think that your union, if approached by the school, might be interested in participating next year?

- Yes No

30. Which incentives do you think might induce your union to participate if they were initially reluctant to do so?

- a. Total compensation for training experience
 Yes No
- b. Partial compensation for training experience
 Yes No
- c. Heavy publicity
 Yes No
- d. Tax incentives
 Yes No
- e. Approaches to union officials by city political leaders and leading businessmen
 Yes No
- f. Promise of employer cooperation
 Yes No
- g. Accrediting of your training operation as an educational institution
 Yes No
- h. Limiting of enrollment to children of present union employees
 Yes No
- i. Limiting of enrollment to students approved by the union.
 Yes No

E-1
(page E-2 blank)

APPENDIX E
SAMPLE OF NOTIFICATION LETTER

SDC SYSTEM DEVELOPMENT CORPORATION

2500 Colorado Avenue, Santa Monica, California 90406

December 20, 1972

Name
Address
City
State
Zip

Regarding:

Dear

For the past 6 months, System Development Corporation has been conducting a study entitled "An Assessment of School-Supervised Work Education Programs". This study is being conducted by System Development Corporation for the U.S. Office of Education (Office of Planning, Budgeting and Evaluation) and has 3 objectives:

- (1) To identify successful program components and configurations that might be easily replicated in other parts of the United States.
- (2) To recommend incentives and policy changes that might be adopted by the Federal government in order to increase union and employer cooperation in work education programs.
- (3) To determine the feasibility of expanding work education programs of different types through new Congressional appropriations.

In the first phase of this study, we requested that senior officials from State Departments of Education and nationally recognized authorities in work education nominate programs for possible inclusion in the study that were either particularly innovative in their approach to work education, or else were among the most successful of the work education programs utilizing the traditional approaches. As you know, your program was among those nominated and, as a result, you completed our initial questionnaire, Characteristics of Work Education Programs.

Six hundred programs completed this questionnaire; and all will be included in a publication to be distributed by the U.S. Office of Education next year entitled Directory of Self-Described Work Education Programs. The U.S. Office of Education's present plans call for the Directory to be distributed to senior school administrators in each state and to program directors listed in the Directory.

The next phase of our project involves the intensive study of 50 of the 600 programs. Under a complex but objective sampling schema, 50 programs with widely varying characteristics have been selected to be visited by an interview team who, in a 2 to 3 days visit, will attempt to gain an indepth picture of each program's features, accomplishments and problems.

It is our pleasure to inform you that your site was among the 50 selected for intensive study. The findings of these visits will be published in a report scheduled to be completed in September 1973, and made available to members of the Congress of the United States, State Departments of Education, and vocational and career education professionals. The Chief State School Officer in your state will be notified by the U.S. Office of Education that your program has been invited to participate in this effort. We are also sending a copy of this letter to your District Superintendent or Community College President.

In order for you to gain a more detailed picture of the scope and depth of our study, and the method by which your program was selected, we are asking you to designate one of your staff members, or yourself, as Site Visit Coordinator. We will telephone you during the first week in January to learn the identity of this coordinator and to answer any questions which you might have regarding your role in the study. Shortly thereafter, we will send each coordinator a packet of materials describing the project and an invitation to attend one of 3 national meetings of Site Visit Coordinator's scheduled to be held at on January 1973. The meeting will last from noon to 5 PM, will include lunch, and all transportation expenses will be assumed by System Development Corporation.

I will be looking forward to speaking with you after the first of the year. In the meantime, if you have any questions, call either me or Ms. Cleone Geddes at (213) 393-9411.

Yours truly,

Steven Frankel, Ed.D.
Director, Work Education
Project

SF:jh

F-1
(page F-2 blank)

APPENDIX F

WORK EDUCATION PROGRAMS

BACKGROUND OF WORK EDUCATION STUDY, AN ASSESSMENT
OF SCHOOL-SUPERVISED WORK EDUCATION PROGRAMS

STUDENT, EMPLOYER & UNION SAMPLING PROCEDURES

SITE COORDINATOR'S CHECK LIST

INTERVIEW TEAM ASSISTANCE FORM

TENTATIVE STUDENT INTERVIEW LIST

WORK EDUCATION PROJECT TRAVEL PLAN

WORK EDUCATION PROGRAMS

Rural Student Vocational Program
Nome, Alaska
Total Program

Fremont-Newark Work Experience Program
Fremont, California
Total Program

Work Experience Program
Salinas, California
Total Program

Exemplary Work Experience Program
Clay Center, Kansas
Total Program

Cooperative Education Program (Diversified)
Douglas, Arizona
Woods Manufacturing Co. Segment

Drafting & Design - Innovative Cooperation
Program
Phoenix, Arizona
Drafting and Design Segment-Maricopa
Tech. Col.

North Orange County Regional Occupational
Program
Anaheim, California
Community Classroom Segment

Corrections Aides Program
Marysville, California
Total Program

Cooperative Vocational Education Program
Hilo, Hawaii
Office Education Segment

Cooperative Vocational Education Program
Honolulu, Hawaii
Kapalani Community College Program

SEWER Project (NYC)
Eugene, Oregon
SEWER and Fisheries Segments

Angell Civilian Conservation Center
Yachats, Oregon
Union Carpentry Segment

Distributive Education Program
Cheyenne, Wyoming
ERIC Program

SPACE Program
New Haven, Connecticut
Cross High School Program

Innovative Valley Education Cross
Registration Program
Simsbury, Connecticut
Distributive Education Segment

Child Care Program
Dover, Delaware
Total Program

Cooperative Occupational Program
New Castle, Delaware
Health Services Segment

Cooperative Education Program
Rangeley, Maine
Total Program

Cooperative Education Program
Concord, Massachusetts
Food Service Segment

Work Experience Career Exploration Program
Cape May, New Jersey
Total Program

Camp Kilmer Job Corps
Edison, New Jersey
Painting and Resilient Floor Covering
Segments

Distributive Education for Incarcerated
Youth
Jamesburg, New Jersey
Total Program

Work Experience Career Exploration Program
Patterson, New Jersey
Food & Health Services Segment-Bunker Hill

Radiologic Technology Program
Bronx, New York
Radiology Program

Student Placement Services Program
Westbury, New York
Aircraft Maintenance Segment

Cooperative Work Experience Program
Lebanon, Pennsylvania
Materials Handling Segment

Work Experience Program
Moscow, Idaho
HOST Segment

Cooperative Vocational Work Program
Chicago, Illinois
Office Occupation - Secretarial Segment

Clerical Office Occupations Program
Fort Dodge, Iowa
Eagle Grove Center Program

NYC In-School Program
Harlan, Iowa
Total Program

Job Upgrading Program
Detroit, Michigan
Ford High School Segment

Butte Vo-Tech Work Study Program
Butte, Montana
School District and City of Butte
Segments

Cary Coop Program
Garner, North Carolina
Industrial Cooperative Training
Segment

Occupational Work Experience Program
Toledo, Ohio
Waite High School Program

Diversified Occupations Work Release
Program
Kent, Washington
Automotive & Business Office Segments
Kent-Meridian High School

Clover Park Education Center
Lakewood Center, Washington
Practical Nursing Program

Seattle Schools Neighborhood Youth Corps
Seattle, Washington
University of Washington Fisheries
Segment and Others

Work Study Program
Madison, Wisconsin
Madison Urban Corps and On-Campus
Segments

Agribusiness Program
Sauk City, Wisconsin
Total Program

Diversified Cooperative Training Program
Melbourne, Florida
Total Program

Coordinated Vocational Academic Edu. Program
Jasper, Georgia
Work Study Program

Allied Health Program
Belleville, Illinois
Medical Records Technician Segment

Distributive Education
Columbus, Kansas
Total Program

Cooperative Education Program
Somerset, Kentucky
Office Education Segment

Practical Nurse Program
Raymond, Mississippi
University of Mississippi Medical Center
Program

Work Study Program
Hagerman, New Mexico
Total Program

Data Processing Program
Norman, Oklahoma
Total Program

Neighborhood Youth Corps Program
Clinton, Tennessee
Clinton High School Segment

Distributive Education Program
Dallas, Texas
Total Program

Business Internship Program
Provo, Utah
Marketing Management Segment

BACKGROUND OF
WORK EDUCATION STUDY,
AN ASSESSMENT OF SCHOOL-SUPERVISED WORK EDUCATION PROGRAMS

The concept of high school and college age students combining formal education with a school-supervised, paying job is exceedingly attractive to many different types of persons. It is agreed that by fostering such programs students can be assisted in making the transition from academia to the world of work; they can earn money needed to continue their schooling or establish a family without having to interrupt their education; and they can apply techniques and procedures learned in vocational training classes to real life situations. At the same time such programs are of equal benefit to schools and industry because they provide the former with a feedback loop by which the effectiveness of vocational and academic instruction can be measured; and they provide the latter with a means of screening potential employees and making input into the educational processes of the schools of the community.

Because of these attributes, so-called work education programs have been in existence in American schools for well over a hundred years. In many cases, the programs consisted of nothing more than informal arrangements by which needy students were placed in part time jobs to allow them to continue their education and equally informal systems in which promising vocational students were placed in jobs related to their training before they were ready to graduate. Federal involvement in work education programs and more particularly in work education programs in vocational education is a more recent development. Work study programs for vocational education students were first reimbursed under the Vocational Education Act of 1963. The Vocational Education Amendments of 1968 provided separate funding for cooperative vocational education (Part G) and for work-study programs for vocational education students (Part H), with the added stipulation that priority be given to programs in areas with high rates of youth unemployment or economic depression.

About \$70 million in Federal appropriations have gone to Parts G and H in the first three years of funding, FY 1970 through FY 1972; no estimate is available on the extent to which these programs have been funded under other parts of the legislation or through other pieces of legislation. Some 23,000 students were enrolled in cooperative vocational education programs under Part G in FY 1970 and an additional 20,000 students participated in Part H supported work study programs; almost 290,000 students in FY 1970 were enrolled in cooperative vocational education programs under Part B -- the Basic State Grant Program for the same fiscal year.

While work education programs are held in high regard by many in business, industry and education, little quantitative data are available pertaining to their specific make-up and features. There is little information on the variety of organization patterns and purposes; and even the locations of existing programs are not known with any degree of comprehensiveness since States do not report program locations to the Federal Government.

The study, An Assessment of School-Supervised Work Education Programs, which SDC has undertaken for the U. S. Office of Education is an exploratory project designed to (1) develop a set of case studies which will document the growth, training strategies, and significant characteristics of 50 different work education programs; (2) look for commonalities in features and characteristics among the more successful of the 50 programs that can lead to recommendations pertaining to the structure of future work education programs; (3) collect data on student participation in the 50 programs, and on non-participating students at the same schools, which can be used to link desirable program outputs to student characteristics and goals; and (4) lay the groundwork for a followup study, tentatively scheduled by the Office of Planning, Budgeting and Evaluation for FY 1974 under a separate contract, which would compare the student data gathered during this study with followup information obtained a year later by reinterviewing the same students to determine what changes have occurred in their earnings, their academic and vocational careers, and their personal expectations.

To initiate this study, SDC has had to first compile a large set of successful and/or innovative work education programs. It did this by conducting a search of the literature and requesting program nominations in each state from the Chief State School Official, the Director of Secondary Vocational Education, the Director of Community Colleges, the Education Director of the State Chamber of Commerce, the President and Executive Secretary of the Advisory Committee for Vocational Education, Superintendents of Education in the Great Cities, and consultants of national repute. More than 1,000 programs were thus nominated as being representative of the better work education programs currently underway.

The director of each nominated program was sent a letter describing the study and was asked to complete a questionnaire to provide information which could be used as a basis for selecting the 50 programs to be studied intensively. Over 600 questionnaires were returned and a synthesized version of the entire data base will be printed in a publication scheduled for distribution later this year entitled "Directory of Self-Described Work Education Programs." This directory will serve to put people interested in various types of programs in touch with one another.

Data from the questionnaires were inserted into a data base and processed by a computer. Considering primarily the educational level of the program (secondary or postsecondary), purpose of the program (training in specific occupational area, career exploration, dropout prevention, etc.), and the industrial setting (farming region, bedroom community, light industry, major industrial/business center), in which the program is located, a complex but objective sampling schema was used to select 50 programs with widely varying characteristics to be visited by project interview teams.

A two person interview team will visit each of the 50 selected program sites for two or three days. They will conduct interviews pertaining to:

- The work education program around which each case study will be constructed.
- Students participating in the work education program

- Comparison groups of students not participating in the program but who otherwise have similar characteristics and are enrolled at the same school.
- Employers participating in the work education program
- Employers not participating in the program who are in the same community
- Unions (if any) participating in the work education program
- Unions (if any) not participating in the work education program who are in the same community

A representative from each of the selected sites (except those located in Hawaii and Alaska) has been invited to attend one of three orientation meetings scheduled to be held in San Francisco, California; St. Louis, Missouri; and Newark, New Jersey in mid-January. At these meetings the entire project plan will be explained in detail.

The site visits will begin the end of January and extend through March 1973. The information collected during these visits will be processed and several months will be devoted to a quantitative analysis of the gathered data. The case studies of the programs will be written so as to bring out both successful and unsuccessful features, and to highlight strategies which appear to be linked to desirable outcomes and are readily exportable. It is expected that many of the case studies will describe programs that are readily exportable and can be replicated on nearly an identical basis in other parts of the United States.

At the conclusion of the study the project team will produce a Final Report which will contain the data analysis; a Replication Handbook which will describe the methodology of the study and will include an extensive topical bibliography; and an Executive Summary which will contain highlights of the Final Report and the Replication Handbook.

Users of these products will include federal officials in the Department of Health, Education and Welfare and the Department of Labor concerned with funding and promoting work education programs; vocational educators at State and local levels seeking to improve existing programs and initiate

new work education programs incorporating features that appear to be linked to successful outputs of various types; community representatives and politicians concerned with shaping legislation pertaining to the support of work education programs and career education; and representatives from industry and labor who are interested in developing or expanding work education programs in cooperation with their local school districts.

STUDENT, EMPLOYER AND UNION
SAMPLING PROCEDURES

Within each site, participating students will be selected by sampling intact classes of students participating in the program. Using intact classes, we will attempt to average 25 participating students per site. The decision rules to be followed will be:

- If the first class selected has between 15 and 35 students in it, the entire class membership will be included in the sample.
- If the first class has more than 35 students in it, 25 students will be randomly selected from the class for inclusion in the sample.
- If the first class has less than 15 students enrolled in the program, a second class will be chosen. If the total of the two classes is 35 or less, both classes will be included in total. If the total of the two classes is more than 35 students, the entire first class will be included; and sufficient students from the second class will be selected randomly to bring the total of students to 25.
- In cases where work education students aren't members of composite classes, 25 students will randomly be selected from the total list of participating students.

An average of 25 nonparticipating students per site will be selected in essentially the same manner, using the same decision rules listed above, with the eligible classes being chosen according to the following guidelines:

- If the participating classes are in the Vocational Education Department, or its equivalent at the school, the list of nonparticipating classes will include vocational education classes at the same school which operate at approximately the same skill level and in the same occupational area. If all of these requirements cannot be met, classes meeting two of the above prerequisites (vocational, same skill level, same occupational area) will be selected. If none of these classes exist either, then classes meeting at least one prerequisite will be included.
- If the work education students aren't members of composite classes, the nonparticipating students will be randomly selected from a list of students with part-time or full-time jobs, the same maturational and background characteristics, and taking the same or similar types of courses. This list will be compiled by the site coordinators and will contain the same number of names as did the list from which the participating students were selected.

Once participating students are selected, the participating employers to be interviewed will be chosen. The four employers which hire the most students on the participating students' list will be selected to be interviewed. If unions actively participate in the work education programs at these employers' sites, they will become the participating union sample.

The following sites are known to have participating unions:

Anaheim, California
Bronx, New York
Butte, Montana
Cary, North Carolina
Cheyenne, Wyoming
Clay Center, Kansas
Edison, New Jersey
Hilo, Hawaii
Jamesburg, New Jersey
Kent, Washington
Patterson, New Jersey
Toledo, Ohio
Yachats, Oregon

If it happens that there are participating unions at other sites, coordinators will be expected to schedule interviews with these unions as well.

Nonparticipating employers and unions will be selected in the following manner:

- Schools will be asked to name two employers who were contacted about participating in the work education program and refused. If two such employers are available, they will become the non-participating employer.
- If no employers have refused to participate, school administrators will be asked to suggest two employers in the same industry as the participating employers who might be a candidate for future participation. If none of these are suggested, potential employers of interest to the school for reasons of geographic proximity and size will be requested.
- Schools will be asked to identify any unions which have refused to participate in their program. Such unions will be listed as non-participating unions (only 13 are needed in the entire sample).

Table I. Table of Random Numbers*

Row	COLUMN NUMBER							
	00000 01234	00000 56789	11111 01234	11111 56789	22222 01234	22222 56789	33333 01234	33333 56789
	<i>1st Thousand</i>							
00	23157	54859	01837	25993	76249	70886	95230	36744
01	05545	55043	10537	43508	90611	83744	10962	21343
02	14871	60350	32404	36223	50051	00322	11543	80534
03	38976	74951	94051	75853	78805	90194	32428	71695
04	97312	61718	99755	30870	94251	23841	54882	10513
05	11742	69381	44359	30872	32797	33118	22647	06850
06	43361	28859	11016	45623	93069	00499	43640	74036
07	93806	20478	38268	04491	55751	18932	58175	52571
08	49540	13181	08429	84187	69538	29661	77738	09527
09	36768	72633	37948	21569	41959	68670	45274	83880
10	07092	52302	24627	12067	06558	45344	67338	45320
11	43310	01081	44863	80307	52555	16148	89742	94647
12	61570	06360	06173	63775	63148	95123	35017	46993
13	31352	83799	10779	18941	31579	76448	62584	86319
14	57048	86526	27795	93692	90529	56546	35065	32254
15	09243	44200	68721	07137	30729	75756	09298	27650
16	97957	35018	40894	88329	52236	82521	22582	61587
17	93732	59570	43781	98885	56671	66826	95996	44569
18	72621	11225	09922	68264	35666	59434	71687	58167
19	61020	74418	45371	20794	95917	37866	99586	19378
20	97839	85474	33055	91718	45473	51144	22034	23660
21	89160	97192	22232	90657	35055	45489	88438	16361
22	25966	88220	62871	79265	02823	52862	84919	54883
23	81443	31719	05049	54806	74699	07567	65017	16543
24	11322	54931	42362	34386	08624	97687	46245	23245

* Table I is reproduced from M. G. Kendall and B. B. Smith. Randomness and random sampling numbers. *J. R. statist. Soc.*, 101 (1938), 147-166, by permission of the Royal Statistical Society.

Table I. Table of Random Numbers*—Continued

Row	COLUMN NUMBER							
	00000 01234	00000 56789	11111 01234	11111 56789	22222 01234	22222 56789	33333 01234	33333 56789
	<i>2nd Thousand</i>							
00	64755	83885	84122	25920	17696	15655	95045	95947
01	10302	52259	77436	34430	38112	49067	07348	23328
02	71017	98195	51208	50374	66591	02887	53765	69119
03	60012	55695	88410	34879	79655	90169	78800	03666
04	37339	94656	49161	42992	48274	54755	44553	65990
05	47869	87001	31591	12273	69626	12822	34691	61212
06	35040	42737	64167	89578	39323	49324	88434	38706
07	73508	30908	83054	60078	86669	30295	56460	45366
08	32623	46474	84061	01324	20628	37319	32356	43869
09	97591	99549	36630	35106	62069	92975	95320	57731
10	74012	31955	59790	96982	66224	24015	96749	07589
11	56751	26157	13351	05014	90966	33674	69096	33488
12	49800	49908	54831	21998	08528	26372	97923	65926
13	43584	89617	24878	56670	00221	50193	99591	62377
14	16653	79664	60325	71301	35742	83636	73058	87229
15	48502	69055	65322	58748	31446	89237	31252	96367
16	96765	54692	36316	86230	48296	38352	23816	64994
17	38923	61550	80357	81781	23441	12463	33992	28128
18	77928	81694	25225	05587	51073	01070	60218	61961
19	17928	28065	25586	08771	02641	85061	65796	48470
20	91036	85978	02318	01499	41951	10321	87131	21566
21	47460	60479	56230	48117	14372	85167	27558	68368
22	47856	56688	51992	82430	40644	17170	13163	18288
23	57616	34653	92298	62918	10375	73515	62986	90756
24	08390	92704	66752	66610	57188	79107	54222	22013

ERIC Table I is reproduced from M. G. Kendall and B. B. Smith. Randomness and random sampling numbers. *J. R. statist. Soc.*, 101 (1938), by permission of the Royal Statistical Society.

Site Coordinator's Check List

WITHIN 5 DAYS AFTER RETURNING FROM COORDINATOR'S MEETING, RETURN THE FOLLOWING ITEMS TO SDC:

_____ Expense reimbursement form

_____ Schedule 1, Part A

_____ Tentative Student Interview List

_____ Interview Team Assistance Form

AT LEAST 10 WORKING DAYS BEFORE INTERVIEW TEAM IS DUE TO ARRIVE:

_____ Set up a meeting for the two interviewers, the program administrator, and yourself (if you are not the program administrator), to be held if possible about 9 AM on the first day of the visit. This interview will require one hour.

_____ Make any final changes on the Tentative Student Interview List and schedule a series of group student interviews. If possible, only one group interview for participating students and one for nonparticipating students should be arranged. In this case, all students on the revised interview list would go to either one meeting or the other. If it is not possible to schedule all participating students or all nonparticipating students into one interview session, set up additional meetings as required. In no case should participating and nonparticipating students be scheduled into the same group meeting. Student interviews should be scheduled for the afternoon or evening of the first day and the morning or early afternoon of the second day. Each meeting will require from 30 to 40 minutes. Since one interviewer will be doing all the student interviews, please don't set up student meetings that conflict with one another.

_____ After developing the student interview schedule, notify all students to be interviewed of the purpose of the study and the time that they will be interviewed. This might be done in notes to the students or, if time and schedules permit, in a meeting with the students. In either case, students must be convinced of the importance of their role in the project before the arrival of the interview team. While it might be advisable to discuss the general nature of the interview questions, please do not show them, or duplicate, the exact questions to be asked during the interviews. Assure the students that all responses will be kept confidential, that no one at the school or in the federal government will be able to see their responses, and that their answers will be coded and put into a computer data bank in which they will be identified by a code number known only to the project staff members.

Set up a series of meetings with employers and union representatives. These meetings can be scheduled from lunchtime of the first day through to early afternoon of the second day. If necessary, dinner or evening meetings can be arranged. Each interview will be conducted by a single interviewer and will require about one hour. These interviews may not conflict with one another. If interview schedules appear to be getting tight, you might suggest that one or more employers or union representatives meet the interviewer at the school or at a central location such as a restaurant in order to save on the interviewer's driving time.

Mail to SDC a tentative interview schedule showing where each of the two interviewers will be, and whom they will speak to, at what time, during their visit to your site. Again, both interviewers will attend the program administrator interview, but only one will go to each of the student, employer, and union interviews.

A DAY OR TWO BEFORE THE INTERVIEW TEAM IS SCHEDULED TO ARRIVE:

Call up all interviewees, or drop them a note, to confirm their interview appointments. After making any necessary revisions in appointment times, develop a revised interview schedule to be given to the interview team upon arrival.

INTERVIEW TEAM ASSISTANCE FORM

Site Name _____

Coordinator's name _____ Work phone # _____ Home phone # _____

Please give us the name of a hotel or motel located near the program site or airport that the team would find to be both comfortable and convenient.

Name _____

Address _____

Telephone Number _____

Can you suggest 1 or 2 restaurants in the area that we would enjoy eating at?

In the space below, please draw (or attach) a map showing the program site, the airport, the motel, and the best connecting roads.

Program

Coordinator

TENTATIVE STUDENT INTERVIEW LIST

PARTICIPATING STUDENTS

NONPARTICIPATING STUDENTS

Name

School

Class

Name

School

Class

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

WORK EDUCATION PROJECT TRAVEL PLAN

	1	1/28	2	2/4	3	2/11	4	2/18	5	2/25	6	3/4	7	3/11	8	3/18	9	3/25
Alan Cohen	Phoenix AZ M T	Coos Bay OR M T	Cheyenne NY M T	Anchorage AK M T	Hilo HI M T	Fremont CA T W	Salinas CA M T											
Jack Pratt	Douglas AZ W Th	Vachats OR W Th	Clay Center Th F KS	Nome AK W Th	Honolulu HI W Th	Anaheim CA Th F	* Yuba City CA W Th											
Cleone Geddes	Provo UT W Th	Hagerman NM M T	Norman OK M T		Jasper GA T W	Belleville M T IL												
Emily Allison		Dallas TX W Th	* Raymond MS Th F		Melbourne FL Th F	* Columbus KS W Th												
Doug Robertson (Portland)	Seattle WA Th F	Lakewood M T	Detroit MI T W	Sauk City WI T W	Ft. Dodge IA T W	Chicago IL M T												
Allen Crews	***	Kent WA W Th	Toledo OH Th F	Madison WI Th F	Harlan IA Th F													
Bob Bishop (Taos)	Dover DE M T	New Castle M T DE	Simsbury CT T W	Cape May NJ T W	Lebanon PA M T	Jamesburg NJ M T	Westbury NY M T											
Ray Tillary	New Haven CT W Th	Cary NC Th F	Concord MA Th F		Rangely ME Th F	Paterson NJ W Th	Bronx NY W Th											

* - Weekend Away
 ** - Steve for Alan
 *** - Steve and Mary Ann



G-1
(page G-2 blank)

APPENDIX G
DATA ANALYSIS PLAN

AN ASSESSMENT OF SCHOOL SUPERVISED WORK EDUCATION PROGRAMS:
DATA ANALYSIS PLAN

This study of work education programs is an exploratory study designed to document the growth, training strategies, and significant characteristics of 50 successful work education programs in order to find commonalities in their features and characteristics that can lead to recommendations pertaining to the structure of future work education programs and to uncover the variations in these features that lead to their different types of successful outcomes; and to collect data on student and employer participation in the 50 programs which can be used to determine the links between desirable program outputs and student and employer characteristics and goals.

The first step of the data analysis procedures will be the scanning of all data (after keypunching and verification) by a special data editing program. This program checks each individual data field for values which are inconsistent with the standards that were established for each field. The program checks for data that have been left out, for data of the wrong form (e.g., alphabetic values in fields where numeric information is required), and for data which falls outside the permissible ranges of the specific field. The program then produces a written exceptions report giving the identification number of each case with errors, the fields in which the errors occurred, and the specific erroneous values that were detected. Errors detected with this procedure will be rechecked in the original questionnaires, and necessary corrections will then be made to the data base.

The data that will be the basis of our analysis of work education programs can be classified in five groupings, based upon the source of the information. These categories are: Program information, collected from the program administrators, by means of either self-administered questionnaires or in in-depth interview sessions at the program site; data collected from group interviews

of the students participating in the work education program; data from group interviews with nonparticipating students; data collected in in-depth interview sessions with employers participating in the work education program; and data from nonparticipating employers. Data were also collected from participating and nonparticipating unions; however, due to the small number of unions involved, this data will be treated separately and will be analyzed primarily in a qualitative manner.

The program data is comprised of two distinct sets of variables: The independent or predictor variables, which are measures of the structural, organizational, procedural and operational characteristics of these work education programs; and the dependent or outcome variables which tap the various components of success of these programs. The first type of analysis to which both of these categories of variables will be subject is a complete set of descriptive statistics. This will include frequency distributions, means, standard deviations, and ranges for each of the items measured. In addition to the inherent value of these descriptive statistics for describing and understanding factors in work education programs, they will be the basis for development of adequate methods for further and more in-depth analyses of these data. This analysis will be used as a first step in combining outcome measures into theoretically meaningful and empirically scalable clusters. Also, and of especial importance, such analysis will be used to distinguish conceptually distinct categories or predictor (independent) variables. First are those predictor variables which show little variance among all the programs under study. When it is kept in mind that all the programs visited were identified as being exemplary to one degree or another, by at least 1 person, we will be able to identify common features and levels of effort which remain constant across most of the programs being examined. For example, it would be important to learn that nearly all the programs under scrutiny maintain a teacher-student ratio no greater than 1:40. For this reason, this type of analysis, identifying clusterings of characteristics common to most of the programs being examined, will be of great value. It

will also allow distinguishing a second set of independent variables - those which show a moderate or wide range of variation among the programs under study. These variables, then, will become important to test as explanatory predictors of differential rates of success among this set of 50 programs. Two basic types of analysis will be used in this analysis of the relation between predictor variables and outcome measures. First, individual predictor items will be related to outcome measures by means of crosstabulation, and will be tested for statistical significance and strength of association with the chi-square statistics and the appropriate measure for the strength of association (phi or contingency coefficient for nominal variables and gamma, tau or Somer's d for ordinal variables). The second mode of analysis of this data will be to explore what combinations of the independent variables can constitute even more powerful predictors of the outcome measures of program success. For this mode of analysis, two statistical techniques will be employed, depending upon the level of measurement involved and upon the assumptions about the form of relationships to have been measured as interval variables, and when interactive effects can be assumed to be minimal, the highly powerful techniques of stepwise multiple linear regression will be used to find the most predictive sets of variables, and the relative importance of each of the variables within the set. When the data is clearly measured only at an ordinal or nominal level of measurement, and when interactive effects seem likely to be involved, then another similar, but more appropriate statistical technique will be employed. This form of analysis will use the Automatic Interaction Detection (AID) program developed by the University of Michigan Survey Research Institute. We expect this technique to be extensively used because of the nature of the data to be analyzed; i.e., it is usually at a nominal or ordinal level of measurement, and interactive effects in the relationships between predictor and outcome variables can be expected to occur with great frequency.

The next two classifications of data, participating students and participating employers, will be treated in a similar fashion as the program data described above. That is, the same modes of descriptive and explanatory analysis will be employed for the corresponding predictor and outcome measures. In this case, such measures will relate student's or employer's knowledge of the structural antecedant (predictor) variables to their evaluations of program success (their self-reported satisfaction with the work education program with which they are associated).

The predictor variables in the participating student data base have been further subdivided into two groups: Independent variables and intervening variables. This class of intervening variables are those which can be treated as independent variables when related to the dependent outcome measures of student satisfaction; however, in relation to the other independent variables they can be considered as casually dependent. Thus in the cross-tabulation analysis they will be treated in both ways - as independent predictors of the outcome variables and as dependent variables to be predicted by the independent variables. In the regression analysis they will be forced into the first step to preserve their logical sequence in the causal chain.

Another type of analysis that will be employed is the comparison of participating students' data to that of the nonparticipating student sample. Both sets of students were asked a large number of identical questions concerning their background and school experiences. If the nonparticipating student was working or had worked in the past 12 months, he was also asked the same questions about his job in the program. Comparison on the first set of corresponding data items will enable us to determine if program enrollees differ significantly on certain characteristics from students not in the program, thus indicating that a process of self-selection is at work, or that most programs have a common set of unofficial selection criteria. Comparisons on the second set of corresponding data items (about students' jobs) will allow us to discover if the jobs of students in a work education

program are significantly different from the types of jobs students not in a work education program typically find; i.e., whether the participating students' jobs are more closely related to their career interests, more closely linked to their classwork, or if they often are simply, by various criteria, better jobs. To make these comparisons we will use t-tests of differences between means when the data is at an interval level of measurement. When the level of measurement is nominal (i.e., categorical data) we will use a chi-square test. For ordinal (rank-order) data, we will employ an appropriate nonparametric test, such as Kolmogorov-Smirnov, Mann-Whitney U, or Kruskal-Wallis one-way analysis of variance. Similar statistical techniques will be used to compare structural characteristics of participating and nonparticipating employers.

Finally, average characteristics of participating students and employers at each program site, especially their attitudes towards the program, will be used as intervening variables to further explain and specify the relations between program features and outcome measures of program success.

Figures 1, 2 and 3 present the dependent, independent and intervening variable groups for the program, participating student and participating employer data, respectively. Within each of these major categories are given the major subheadings of variable clusters, the specific variables within these clusters, and the individual questionnaire items that have been used as operational measures of these variables.

Figure 1

PROGRAM

<u>DEPENDENT VARIABLES</u>	<u>ITEM</u>	<u>STATISTICAL TEST</u>	<u>COMPUTER PROGRAM</u>
<u>Success</u>			
Program Growth			
Past	Q 9-12a,b	χ^2 - Test	SPSS
Anticipated	13 - 9	"	"
Student Completion	17b/9	"	"
Effect on Student			
problems			
Dropouts	Q 20	"	"
Absenteeism	21a	"	"
Tardiness	21b	"	"
Grades	21c	"	"
Motivation	21d	"	"
Other	21e	"	"
Placement			
By Program	Q 41b	"	"
All related	42b	"	"
Problems			
Number Unresolved	Q 49	"	"
Overall Self-Estimated			
Success Score	Q 51a-x	"	"
are related to:			
<u>INTERVENING VARIABLES</u>			
Average Student Satisfied		"	"
Average employer satisfied		"	"
With program		"	"
With students		"	"
<u>INDEPENDENT VARIABLES</u>			
<u>Origin & Development</u>	Q 4, 8	"	"
<u>Organization Structure</u>			
Size	Q 9, Allb	"	"
Staff	6, 7, Allc	"	"
Funding	A14d/g	"	"
Effectiveness	28 a-b	"	"
Advisory Committee	38a-c	"	"
<u>Instructional Environment</u>			
Teacher-Student Ratio	Q 15	"	"
Job-Related Instruction	24	"	"
Facilities	36 a,b	"	"
<u>Work Environment</u>			
Off	Q 37a	"	"
Facilities	36c,d	"	"
<u>Employer Support</u>			
Employer Support	Q43, 44	"	"
<u>Provisions for Students</u>			
Eligibility			
Eligibility	Q 16b	"	"
Special Provisions	25, 26	"	"
Counseling	27	"	"
Follow-Up	30a	"	"
Placement			
In Program	40	"	"
After Graduation	41a	"	"
A weighted linear combination		Stepwise multiple	BMDP2R or
of all above variables		regression	SPSS
		Stepwise prediction	AID
		for qualitative data	
	All items	Descriptive	SPSS
		Statistics	
		(frequency	
		distributions,	
		means, standard	
		deviations, ranges,	
		etc.)	

Figure 2

STUDENTS

<u>DEPENDENT VARIABLE</u>	<u>ITEM</u>	<u>STATISTICAL TEST</u>	<u>COMPUTER PROGRAM</u>
Satisfaction with program is related to:	Q 26, 38, 39		
<u>INTERVENING VARIABLES</u>			
<u>Success Ranks</u>			
Academic grades	Q9	χ^2 - Test	SPSS
Employer rating	Form 4, Q71	"	"
<u>Program Relevance</u>			
Occupational choice	Q 23	"	"
Class & Work	24	"	"
Skills training	33	"	"
<u>Work Problems</u>			
Interference	Q 22 a-g	"	"
<u>INDEPENDENT VARIABLES</u>			
<u>Demographic Factors</u>			
Age	Q 6	χ^2 - Test	SPSS
Sex	5a	"	"
Marital Status	5b	"	"
Ethnicity	5c	"	"
<u>Self-Selection</u>			
Reasons for joining	Q 10 a-f	"	"
<u>Work Rewards</u>			
Pay	Q 17b	"	"
Pay raise	17b-17c	"	"
Use of pay	18a-e	"	"
Relation to career	25, 34	"	"
<u>Work Type</u>			
Job	Q 32	"	"
Hours	15	"	"
Schedule	14	"	"
Quality	40 (score)	" Guttman Scale	"
Length of Time in Program	Q 12	"	"
A weighted linear combination of all above variables		Stepwise multiple regression Stepwise prediction for qualitative data	BMDP2R or SPSS AID
	All items	Descriptive Statistics (frequency distributions, means, standard deviations, ranges, etc.)	SPSS

EMPLOYERS

<u>DEPENDENT VARIABLES</u>	<u>ITEM</u>	<u>STATISTICAL TEST</u>	<u>COMPUTER PROGRAM</u>
Satisfaction with program in related to:	Q 21, 72 a-x & 23, 24, 25, 28 38 (with school) 71 (with students)		
<u>INDEPENDENT VARIABLES</u>			
<u>Company</u>			
Size	Q 7b&d	X ² - Test	SPSS
Growth	Q 8	"	"
Staff	Q 17 c&d	"	"
Goals	Q 18	"	"
Objectives	Q 17	"	"
Benefits	Q 56	"	"
<u>Extent of Involvement with Program</u>			
Number of Students	Q 11, 12	"	"
Number/Size	12/7	"	"
Advisory Committee	63a	"	"
Problem Resolution	29	"	"
Final Responsibility	37a-f	"	"
Number of Meetings	39	"	"
Growth	14	"	"
<u>Involvement with WE</u>			
	Q 57	"	"
	27 a-b	"	"
<u>Union Involvement</u>			
	Q 65-70	"	"
<u>OJT</u>			
Facilities	Q 62	"	"
Supervision	51, 52	"	"
Procedures	46-49	"	"
Evaluation	40	"	"
<u>Selection</u>			
Basis	Q 20a-b	"	"
Standards	44	"	"
<u>Economic Factors</u>			
Trainee wages	Q 58	"	"
Reimbursed expenses	59	"	"
Non-reimbursed expenses	60	"	"
Increased reimbursement	61	"	"
<u>Student Characteristics</u>			
Ethnicity	Q 15	"	"
Sex	16	"	"
Completion	31-34	"	"
Attendance	35	"	"
Dress	45	"	"
Interaction with other Employees	54, 55	"	"
Safety	30a-c	"	"
Abilities as Regular Employee	41a-d, 43	"	"
A weighted linear combination of all above variables		Stepwise multiple regression Stepwise prediction for qualitative data	BMJP2R or SPSS AID
	All items	Descriptive Statistics (frequency distributions, mean, standard deviations, ranges, etc.)	SPSS