AN EVALUATION OF THE SOCIO-PSYCHOLOGICAL AND SOCIO-ECONOMIC EFFECTS OF MDIA TRAINING ON TRAINEES IN SELECTED MICHIGAN PROGRAMS

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ABSTRACT

AN EVALUATION OF THE SOCIO-PSYCHOLOGICAL AND SOCIO-ECONOMIC EFFECTS OF MDTA TRAINING ON TRAINEES IN SELECTED MICHIGAN PROGRAMS

by

Darrell George Jones

The fundamental focus of this study was an investigation of the effects of training (frequently termed "retraining") under the Manpower Development and Training Act on the socio-psychological and socio-economic statuses of selected Michigan trainees.

To keep MDTA training as the significant experimental variable in this study, two comparative methods were employed:

1. A comparison was made between the trainees' socio-psychological and socio-economic statuses and the socio-psychological and socio-economic statuses of matched controls three months after the training programs the trainees entered were completed.

2. A comparison was made of the socio-psychological and socio-economic statuses of the trainees before training and three months after the training programs they entered were completed.

The control group consisted of individuals who displayed an interest in enrolling for the particular course--or a similar course offered at the same time--that the trainees did actually enter. The control group met the same entrance requirements established by MDTA and Michigan Employment Security Commission regulations as did the trainee group; thus, both groups were equally qualified to enter training. For some reason the controls elected not to enter training.

The control group and the trainee group were matched on the following crucial variables: sex, ethnicity, age, education, marital status,

General Aptitude Test Battery scores, interest in the same program, and being in the same labor market area. There also was no difference between the trainees and their controls in the allocation of subjects to three categories, high, medium or low, measured by selected socio-psychological scales.

Data were obtained from 151 trainees in thirteen programs located in four standard metropolitan statistical labor market locations and 151 paired controls. Data utilized in the study were obtained by the use of two structured personal interviews; the administration of a socio-psychological inventory composed of four selected scales of the California Psychological Inventory (well-being, self-acceptance, responsibility, sociability), the Gough-Sanford Rigidity Scale and the Maslow Security-Insecurity Inventory; and personal interviews with MDTA instructors to obtain trainee evaluation data following training.

Because the data in the study were qualitative and non-parametric, the statistical test employed was the Chi-square test.

The major findings of the study at the three-month period following training were:

1. a. There were no differences between the numbers of trainees and controls who were employed, voluntarily underemployed or involuntarily unemployed.

   b. Trainees expressed significantly greater job satisfaction.

   c. There was a difference between the hourly wage levels of trainees and controls that was significant at the .10 level. More controls than trainees were in the highest pay category and it is postulated this may be due to their longer participation in the labor market.

d. Trainees held jobs that were ranked higher occupationally.

e. A difference between trainees and controls was found on only one socio-psychological scale. Trainees ranked significantly higher in sociability.

2. a. Trainees were in much better employment statuses after training. Before training only 13.99 per cent were employed (actually underemployed); following training 82.52 per cent were employed.

b. There was no difference in the job satisfaction expressed by trainees concerning their last full-time jobs held before training and the jobs held after training.

c. Trainees were definitely better off in terms of wages following training. The difference between pre-training and post-training wage levels was highly significant.

d. Trainees clearly moved into better occupational positions following training. The decrease in those who were unskilled or in service occupations before training is most noticeable.

e. There was a highly significant difference in the socio-psychological statuses of trainees following training. On five of the six scales employed, there was an evident movement toward improved socio-psychological statuses.

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This study was made possible because of the opportunity to work under the direction of Dr. Sigmund Nosow on an Office of Manpower, Automation and Training research project that was funded by the Department of Labor. The gathering of data from trainees before they entered training was supported by funds from this project. The gathering of data from trainees following training and the gathering of all data from the control group was supported chiefly by funds obtained from the School of Labor and Industrial Relations of Michigan State University.

I am greatly indebted to Doctor Nosow of the School of Labor and Industrial Relations and the School of Social Science for patient and invaluable counsel while serving as a constant critic, teacher and friend throughout the designing and the carrying out of the project, to Dr. Archibald Shaw, Chairman of the Department of Administration and Higher Education, for willingly assuming the chairmanship of my doctoral committee upon the departure of Dr. Harold Dillon for another position at the State University of New York, and to the other members of my doctoral committee, Dr. Max Smith, Director or Community College Cooperation, Dr. George Myers, of the the School of Teacher Education, and Dr. Darab B. Unwalla of the Department of Management.

A host of people in the Vocational Division of the State Department of Public Instruction, in the Michigan Employment Security Commission, and at MDTA training sites generously cooperated and

furnished data. Of particular help were the members of Michigan Employment Security Commission offices in the local labor market locations where programs studied were conducted.

Appreciation is expressed to the entire office staff of the OMAT project and the OMAT field interviewers who gave encouragement and assistance in the preparation of this study. Special appreciation is expressed to Mrs. Ruth Hayes, Peggy May and John Kloosterman who offered technical and expert assistance.

Acknowledgment must be made of the cooperation of the test makers who granted permission to the Nosow project to utilize their instruments in its research endeavors; particular note must be made of the contribution of Luther W. Smith, Instructor in the Department of Social Science, Michigan State University, who is principally engaged in this phase of the overall Nosow project.

To my patient wife and neglected children, especially during the periods of field research and the final preparation of this study, I owe a very special debt of gratitude for their understanding and sustinence, hoping that the future will recoup the losses of the past.

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CHAPTER I

INTRODUCTION

> . . . . Nothing matters more (than education) to the future of our country: not our military preparedness--for armed might is worthless if we lack the brain power to build a world of peace; not our productive economy--for we cannot sustain growth without trained manpower; not our democratic system of government--for freedom is fragile if citizens are ignorant.
>
> - President Lyndon B. Johnson

This study will focus its attention on a type of educational offering that is newly arrived on the American educational scene; yet it is already making a marked impact. Educators have long evidenced an interest in any extension of education beyond that which is commonly known and accepted at the time. Interest in the development of vocational education in Connecticut as early as 1915 led to the establishment of the first vocational schools in the United States. These schools were designed to serve pupils within a designated area by offering instruction in agriculture and home economics.

The entrance of the Federal government into the field of vocational education provided an impetus to the field of adult education which had only been slowly evolving from the earliest adult education activity, the New England town meetings. The passage of the Vocational Education Act of 1917, commonly known as the Smith-Hughes Act, provided for the establishment through the public schools of a system of vocational education which included classes for adults. Aid was provided for rigidly defined categories--agriculture, trades and industry, and

home economics.

While the Works Progress Administration, the National Youth Administration and the Civilian Conservation Corps offered further support to adult vocational education during the depression, it was not until 1956 when practical nursing was added to the categories covered by the Smith-Hughes and George-Barden vocational education acts that a chiefly post-secondary vocational program was offered.

The concept of federal retraining for unemployed workers was introduced with the passage of the Area Redevelopment Act of 1961. The section of the act which pertained to the education of unemployed workers provided for brief training--with subsistence allowance up to sixteen weeks while in training--to equip the jobless with new skills required by expanding technology, the growth of the new industries, or by identifiable job vacancies in the area. About 17,000 unemployed workers were involved in training provided by the act from the time of the initiation of the act until March, 1963. Certainly this signified an acceptance of and a need for such training. However, it was clearly evident that the restrictions imposed by the act--the brief time allowed for training and the availability of training only to individuals in specified areas--limited its usefulness and overall contribution to the alleviation of unemployment.

The adult vocational education program that from its inception seemed destined to surpass all other programs came into being in March, 1962. Congress enacted the Manpower Development and Training Act (MDTA) in the face of a pressing need to alleviate unemployment and underemployment and to provide training in occupational fields in which serious shortages of skilled or technical labor existed. The limitations

imposed by the Area Redevelopment Act were omitted. Training was not limited to particular areas. Training and living allowances were authorized for training periods up to fifty-two weeks in length and transportation allowances were to be provided where necessary![1] The stated goal of the Congress to vocationally train 400,000 adults within three years evidenced an adult education movement that was beyond the scope of anything yet given consideration in educational circles.

Statement of the Problem

The fundamental focus of this study is an investigation of the effects of training (frequently termed "retraining") under the Manpower Development and Training Act on the socio-psychological and socio-economic statuses of selected Michigan trainees who entered training programs and either completed training or withdrew during the two-year period between August, 1963 and July, 1965.

A review of the literature points out that the socio-psychological and socio-economic effects of education in general can be ascertained and it has been demonstrated that educational level is definitely related to social and psychological well-being and success in the labor market.[2] However, literature concerning success of adult vocational education, measured in terms of socio-psychological and socio-economic outcomes, is scarce and there is yet little available that is closely applicable to the outcomes of training such as that taken under MDTA.

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[1]See Definition of Terms, p. 18 for definitions of MDTA Programs, Trainees and Allowances.

[2]See pp. 56-58 of this study.

Presented with the reality that a wide variety of Manpower Development and Training courses are being offered in Michigan, a question arises as to the extent of the success of such programs in meeting their objectives, the basic objectives of adult vocational education, an improvement in the socio-psychological and socio-economic status of trainees. One study to investigate this question is being carried out under contract research with the U. S. Department of Labor by Dr. Sigmund Nosow, School of Labor and Industrial Relations, Michigan State University. His study[1] is essentially concerned with the types of variables, social and psychological, which are associated with successful completion of MDT programs and successful placement in the labor market.

Another form of evaluation is not only possible, but perhaps necessary to give a type of perspective which an "internal" study of trainees alone cannot offer. This type of study is one which attempts a comparative analysis between trainees and persons similar in basic personal characteristics, social, psychological and economic. The essential question to which such research might be addressed is: "To what extent does Manpower Development training provide social, psychological and economic outcomes for trainees which are not available for persons similarly situated and similar in background characteristics who do not have the advantage of such training?"

This type of research represents a type of experimental design

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[1]Sigmund Nosow, Worker Retraining Under M. D. T. A. (Michigan State University, East Lansing, Michigan: Research presently underway; initial proposal and progress report submitted to the U. S. Department of Labor).

so well described by John Stuart Mill in his famous treatise on Logic. Given a particular population it is desired to study the effect of some independent variable X. The population is divided into two groups, the experimental group and the control group. In this study the experimental group is that group of trainees being trained under MDTA. The control group is a group selected out of the same population or universe, but not given training.

To keep MDTA training as a significant variable in this study, two comparative methods were employed:

1. A comparison of the socio-psychological and socio-economic status of the trainees before training and three months after the training programs they entered are completed will be made.

2. A comparison will be made between the trainees' socio-psychological and socio-economic status and the socio-psychological and socio-economic status of matched controls three months after the training programs the trainees entered are completed.

The control group consisted of individuals who displayed an interest in enrolling for the particular course--or a similar course offered at the same time--that the trainees (experimental group) did actually enter. The control group met the same entrance requirements established by MDTA and Michigan Employment Security Commission regulations as the experimental group;[1] thus, both groups were equally qualified to enter training. For some reason (e.g. finding new employment, returning to employment from which they had been released,

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[1] See Appendix, Table B-1, for the established minimum MESC selection criteria for the sample programs.

entering other training, family obligations), the controls elected not to enter MDTA training.

The control groups and the experimental groups were matched on the following crucial variables: sex, ethnicity, age, education, marital status, General Aptitude Test Battery scores, interest in the same programs, and being in the same labor market location. As closely as it was possible to do so, they were also matched on the number of dependent children they have.

Training under the Manpower Development and Training Act is presently of enormous proportions in terms of numbers involved and the expenditures of time and money. Each year, since its beginning, the scope of the training has increased significantly and every indication is that it will continue to do so. Therefore, it is hoped that this study will present evidence of the degree to which MDTA training is achieving its purposes and the purposes for which adult vocational education in general is offered.

Significance of the Study

Training offered under the Manpower Development and Training Act is truly adult vocational education in its most basic form. A recognition of the purposes for which adult education is offered, the labor market background that brought about the passage of MDTA, the vast numbers of trainees involved, the basic personal characteristics of trainees in most need of training, and the monetary expenditure for such broad MDTA offerings, justifies an investigation to determine whether MDTA programs are achieving their desired goals.

Whenever the purposes of adult education are cited, those that

are most frequently mentioned--although in different terminology, perhaps--are vocational (occupational) efficiency, vocational (occupational) security and self-realization (self-satisfaction).[1] While other purposes are acknowledged, these consensus purposes are identical with the purposes for which MDTA training is offered. Satisfactory achievement in meeting the purposes for which training is offered should have significant effects on the socio-psychological and socio-economic statuses of trainees.

The national unemployment rate at the time MDTA was enacted by the Congress in 1962 was 5.6 per cent. This was a rise of almost 40 per cent from the 2.9 million unemployed in 1957 to the 4 million unemployed in 1962. In addition, there were 2.6 million workers who were involuntarily limited to part-time jobs. During this same period, long-term unemployment (15 weeks or over) rose by 100 per cent; very long-term unemployment (6 months or over) rose by almost 150 per cent.[2]

The unemployed were to a large extent unskilled or semi-skilled workers seeking jobs in an economy where technical education and complex skills are more and more necessary for employment. Many jobless individuals had been laid off from industries which had witnessed a long-term decline in labor needs. These workers had little hope of returning to jobs in their previous occupations. In some cases, jobs

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[1] Lyman Bryson, Adult Education (New York: American Book Company, 1936), p. 28; M. L. Wilson and others, "Why Adult Education", Adult Education Bulletin, VI (1942) pp. 164-180; Paul Essert, Creative Leadership of Adult Education (New York: Prentice-Hall, 1951), Chapters I and II.

[2] United States Office of Manpower, Automation and Training, Manpower and Training-Trends-Outlook-Programs, Manpower Research Bulletin No. 2, (Washington, D. C.: U. S. Government Printing Office, July, 1963), p. 1.

of long standing had disappeared under the impact of automation, change in consumer demand, new production processes, and re-location of establishments.

With this unemployment situation in the background, Congress enacted the Manpower Development and Training Act in March, 1962. With the allocation of funds in August, 1962, the Department of Labor in cooperation with the Department of Health, Education and Welfare set in motion the nationwide training program provided by the act.

The new MDTA training program was designed to help unemployed and underemployed workers meet the requirements of available jobs and to facilitate their orderly transition from occupation to occupation and from industry to industry. During the period from August, 1962 to December, 1964, a total of 6,667 training projects were approved throughout the nation.[1]

The state of Michigan was critically aware of the need for such training programs. During the same period mentioned above, 1957 to 1962, the average unemployment rate in Michigan was 9.2 per cent, with peak unemployment reaching 13.8 per cent in 1958.[2] During 1958, a total of $9,016,175 was paid in unemployment compensation benefits; and during 1958, 242,810 Michigan unemployed exhausted the benefits available to them.[3] Michigan's economy, tied as it is to the

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[1]Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training, By the U. S. Department of Labor (Washington, D. C.: U. S. Government Printing Office, March, 1965), p. 251.

[2]Ibid., p. 241.

[3]Michigan Employment Security Commission, Manpower in Michigan--A Reappraisal of the 1960's (Detroit: MESC, September, 1964).

manufacture of durable goods, particularly the automobile industry, suffered unemployment beyond the national rate because of severe setbacks in durable goods industries. As an example, consumer demand for automobiles varies more than a million units from year to year.

Certain identifiable groups were hardest hit by unemployment. Nonwhite workers were bearing a disproportionate share of the burden of unemployment, comprising about 11 per cent of the total labor force but 21 per cent of the unemployed.[1] Workers who did not complete high school had unemployment rates nearly twice as high as those with more education, and five times as high as those who had gone through college.[2]

Older workers comprised a significant segment of the unemployed. More than one-fourth of the unemployed was composed of workers over 45 who were actively seeking work. Those over 45 remained unemployed far long than did younger job seekers. More than 35 per cent of those in this group had long-term unemployment (15 weeks or over).[3]

There were critically high unemployment rates for women. Females accounted for 41 per cent of the unemployed in 1964.[4] It is noteworthy that unemployment of young women between the ages of 16 and 25 was so high. In 1964 the average unemployment rate for white females in this age group was 12.5 per cent; for nonwhites the average was 28.7 per

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[1] Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training, op. cit., p. 131.

[2] Ibid., p. 92.

[3] Ibid., p. 132.

[4] Manpower Research and Training Under the Manpower Development and Training Act of 1962, A Report of the Secretary of Labor. (Washington, D. C.: U. S. Government Printing Office, March, 1965), p. 16.

cent.[1]

Recognizing the need of these groups most susceptable to unemployment, MDTA has encouraged them to undertake training. Through the end of 1964, nearly 26 per cent of the trainees in institutional projects and almost 20 per cent of the trainees in on-the-job (OJT) have been nonwhites--a somewhat greater proportion than they comprise of all jobless.[2]

MDTA has been less successful in encouraging school dropouts to undertake training. In 1964, persons with less than 9 years of education constituted a little less than 16 per cent of the institutional trainees and 14 per cent of the OJT trainees. Yet, in the labor market this group represents over one-third of the unemployed.[3]

MDTA reports point out that older workers are still seriously under-represented in training programs. Despite the high proportion of the unemployed in the 45 years and older group, in 1964 this older group constituted only one-tenth of the institutional trainees and one-twelfth of the OJT trainees.[4]

Of the total 95,755 trainees engaged in institutional training in 1964, a significant number, 27,767, about two out of every five trainees were women.[5] Of the 782 occupations for which MDTA institutional and on-the-job training projects were approved in the calendar

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[1] Manpower Report of the President, op. cit., p. 206.

[2] Ibid., p. 131.

[3] Ibid., p. 132.

[4] Ibid., p. 132.

[5] Manpower Research and Training, op. cit., p. 196.

year 1964, five of the top ten occupations were occupations chiefly considered as female occupations.[1]

Facing the reality of unemployment at the time MDTA was enacted, Michigan officials realized the opportunities offered by the act. In 1962, 23 training projects were approved at various sites throughout the state.[2] The acceptance and growth of MDTA programs in Michigan is revealed in the fact that in 1964 a total of 212 projects involving 8,740 institution and OJT trainees and 600 other individuals in experimental and demonstration projects[3] with a total budget of $18,515,844 were approved for Michigan.[4]

The involvement of so many individuals and the expenditure of huge sums of government money justify a consideration of the worth of MDTA training in general. Certainly an examination of the effects of MDTA training on the groups that suffer most seriously from unemployment and underemployment should be made. It is these groups that live close to poverty when the economy around them is at which is termed "full-employment."

If this gigantic governmental adult vocational education undertaking is successful, MDTA training should lead to the successful training and placement of trainees into satisfying jobs, utilizing their

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[1] Ibid., pp. 179-191.

[2] Manpower Development and Training Act. A Report and Evaluation of Research on Trainees, Training Programs, and Training Activities. A Report of the Secretary of Labor. (Washington, D. C.: U. S Government Printing Office, 1964).

[3] Manpower Research and Training, op. cit., p. 178.

[4] Ibid., p. 193.

newly acquired competencies. It is realized that some programs will be more successful than others for a number of reasons. Some labor market locations will offer a more ready absorption of the newly trained. As has been stated, research presents evidence of the extent that success in training and success in the labor market is influenced by crucial personal variables. Literature pertinent to the identification of these variables will be reviewed in Chapter II.

As a result of purposively selecting certain types of programs to be studied, it has developed that eight of the nine program types that outranked all other programs in the nation in terms of enrollment in 1964 will be studied. In order of enrollments, these were: (1) stenographer, (2) nurse-aide-orderly, (3) practical nurse, (4) clerk-typist, (5) welder, (6) general machine operator, (7) automobile mechanic, and (9) automobile body repairman. It is particularly significant that the effects of training on the socio-psychological and socio-economic statuses of trainees in these types of programs should be investigated.

It is also significant that the percentage of women, the percentage of nonwhites and the percentage of individuals over 45 who are considered in this study very closely approximate the percentages of such individuals who are engaged in MDTA training throughout the nation.[1]

The achievement of the purposes for which adult education is offered bears a heavy impact on the socio-psychological and socio-economic statuses of those being educated. The magnitude of this new

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[1] Ibid., p. 196; Manpower Report of the President, op. cit., pp. 131-133.

movement in adult vocational education warrants an evaluation of the effects of MDTA training on trainees It is to this major problem of evaluation that this study lends itself.

Hypotheses

Stated below in operational terms are the main research hypotheses pursued in this study:

1. There is a difference in socio-psychological and socio-economic status between trainees before they enter training and three months after the training programs they entered are completed as measured by the five correlates of socio-psychological and socio-economic status.[1]

2. There is a difference in socio-psychological and socio-economic status between trainees and their matched controls three months after the training programs the trainees entered are completed as measured by the five correlates of socio-psychological and socio-economic status.

3. There is a difference in the socio-psychological and socio-economic status of trainees three months after the training programs they entered are completed as measured by three correlates of socio-psychological and socio-economic status[2] between trainees having

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[1]The criteria established to serve as correlates are: employment status, occupational status, wage level, job satisfaction, and socio-psychological inventory scores (areas inventoried are: responsibility, self-acceptance, well-being, sociability, rigidity, and security-insecurity.

[2]The criteria "employment status" and "job satisfaction" cited in the original correlates in footnote 1, above , are omitted from this test because each of them is integrally important in the development of the success of training scale.

achieved different degrees of success of training.[1]

Scope of Study

The total sample of 302 male and female, white and nonwhite subjects consisted of 151 individuals entering MDTA training programs and their matched controls. These subjects came from four standard metropolitan statistical labor market area locations. Tables 1 through 10 in Appendix A identify the basic characteristics of the MDTA trainee sample by the programs they entered.

The trainees were distributed among thirteen programs in the four labor market locations. The first MDTA program studied began in August, 1963 and the last program studied ended in July, 1965. Thus, the thirteen programs studied covered this two-year period. The programs varied in length from four weeks for the Nurse-Aide-Orderly program to fifty-two weeks for the Practical Nurse and Auto Mechanic programs. The mean length of the programs was about nineteen weeks (18.8). Table 9 in Appendix A presents duration of course information for the thirteen programs.

The composition of the four labor market areas was such that there was a variety of governmental, business, and manufacturing enterprises from which those in the labor market could seek employment. The local labor market situation is a crucial variable in whether or not individuals can find work in the occupational areas for which they were trained and which they prefer. Those in the labor market in Michigan seeking employment faced differing employment situations in 1963, 1964,

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[1] See Definition of Terms, page 20, for explanation of this term.

and 1965. Table 1-1, page 16, demonstrates this changing rate of unemployment in the four labor market locations in which the subjects of this study sought work.

Certainly this changing employment situation affects the outcomes of this study. Had the employment situation remained stable the opportunity to weigh the effects of MDTA training would have been enhanced. With the ready availability of employment for those seeking positions in some labor markets recently, the task of measuring the effects of MDTA training is made more difficult.

Delimitations

1. This study is confined to four standard metropolitan labor market areas in Michigan in which MDTA programs were available for investigation.

2. This study is confined to thirteen selected MDTA programs in the four labor market locations that were available for study during the two-year period, August, 1963 to July, 1965, through the cooperation of the Office of the Michigan Employment Security Commission, the offices and instructional staffs of the Michigan State Vocational Department, and Dr. Sigmund Nosow, director of a research project funded by the United States Department of Labor and centered at Michigan State University.

3. This study includes only those trainees in the thirteen selected programs for whom matched controls were available.

4. This study makes no attempt to determine how and why the subjects of this study came to be in the particular socio-psychological and socio-economic status in which they were found at the time of the

TABLE 1-1 Unemployment rates for sample labor markets and Michigan by quarters, July, 1963, through September, 1965*

LABOR MARKETS	July-Sept. 1963	Oct.-Dec. 1963	Jan.-March 1964	April-June 1964	July-Sept. 1964	Oct.-Dec. 1964	Jan.-March 1964	April-June 1965	July-Sept. 1965	Nine Quarter Average
A	4.0	2.7	3.2	2.5	3.9	2.4	2.7	1.5	1.9	2.8
B	6.8	5.1	8.8	6.0	4.2	3.4	5.1	3.1	4.5	5.2
C	3.7	2.4	4.1	3.5	3.5	2.4	3.2	2.2	2.4	3.0
D	5.3	3.7	4.7	3.9	4.7	3.1	3.4	2.7	4.3	4.0
Michigan	5.4	4.0	5.5	4.1	4.7	3.4	4.1	3.0	4.2	4.3

*Mean quarterly rates compiled from the monthly reports in Michigan's Labor Market, Detroit, Michigan: Michigan Employment Security Commission.

first interview at the beginning of training. The status of the subjects that was determined through the use of the instruments utilized in this study was merely accepted.

Assumptions

Before this study was undertaken, some basic assumptions were made. They were that:

1. Adult vocational education as offered through MDTA training will have measurable effects on the socio-psychological and socio-economic status of trainees.

2. Success in MDTA adult vocational education and success in the labor market are not fortuitous but are crucially affected by certain personal characteristics basic to the individual.

3. A significant number of individuals who are interested in MDTA training and qualified for training will not enter training and thus offer a pool from which matched control groups may be formed.

4. A significant number of members of the experimental and control groups will cooperate in this study and make themselves available for personal interviews.

5. All available facts pertaining to participants of this study have been accurately recorded.

6. All participants will honestly, within the limits of their own perceptions, report information requested of them.

7. The three-month period between the completion of training programs entered and the administration of the post-training interview will allow sufficient time for the trainees to adjust in the labor market.

8. The instruments selected for the purpose of determining socio-psychological and socio-economic status will adequately serve this purpose.

Definition of Terms

MDTA Programs -- The Congress of the United States passed the Manpower Development and Training Act in March, 1962. Title II of this act authorizes programs for the training of unemployed and underemployed workers for job opportunities found through research undertaken under Title I of the act and other means such as labor market surveys.

MDTA Trainees -- Individuals who are selected for training must be in one of the following categories:

a. unemployed (includes members of farm families with less than $1200 annual net family income)

b. working below their skill capacities

c. working substantially less than full-time

d. will be working less than full-time or will be unemployed because their skills have become, or are becoming obsolete

e. 16 years old but not yet 22 and in need of occupational training and further schooling.

In addition, before training is undertaken, it must be determined that:

1. these workers cannot reasonably be expected to get appropriate full-time employment without training, and

2. there is reasonable expectation of employment in the occupations for which the worker is trained.

Employment Status -- Refers to the labor market status of

subjects: employed, underemployed, voluntarily unemployed, involuntarily unemployed.

Underemployed -- Any individual who is working at a job level that is below his training or experience level and any individual who is working at an entry level job.

Voluntarily unemployed -- Any individual not actively seeking work, such as housewives, the ill or incapacitated, prisoners, servicemen and those on work leave or vacation.

Involuntarily unemployed -- Any individual who is in the labor market actively seeking work.

Occupational Status -- Refers to the occupational categories which described the last full-time jobs held by the trainees before they entered training and the occupational categories which described the jobs held by trainees and their matched controls at the three-month period after training. The descriptive categories utilized in MDTA reports[1] and in this study are:

1. Professional and managerial (primarily at the semi-professional or technical level)
2. Clerical and sales
3. Service
4. Skilled
5. Semi-skilled
6. Unskilled
7. Entry level job only--never worked. (In this category, three trainees never held jobs before entering training.)

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[1] Manpower Research and Training Under the Manpower Development and Training Act of 1962, loc. cit.

The jobs held by the subjects of this study were assigned to the various categories through the use of the Dictionary of Occupational Titles.[1]

Jobs -- Refers to the last full-time employment held by trainees before entering training and to the full-time employment held by trainees and their matched controls at the three-month period after training.

Wage level -- Refers to the hourly rate of pay earned by trainees on the last full-time job held before entering training and to the hourly rate of pay earned by trainees and their matched controls at the three-month period following training.

Job Satisfaction -- Refers to the degree of satisfaction expressed by trainees towards their last full-time jobs before they entered training and the degree of satisfaction expressed by trainees and their matched controls towards jobs held at the three-month period following training. The degree of Job Satisfaction scale is a 5-point scale ranked from (1) very much satisfaction to (5) none at all.

Success of Training -- Refers to the evaluation made at the three-month period following training by the application of a constructed scale based on criteria from the training situation and labor market participation. Table 1-2, on the following page, illustrates the requisites for the achievement of different degrees of success of training.

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[1] Dictionary of Occupational Titles. Vols. I and II. (Washington, D. C.: U. S. Government Printing Office, 1949).

TABLE 1-2 Degree of success of MDTA training

DEGREE OF SUCCESS OF TRAINING	Success of training evaluative criteria						
	Completion of the course A	Average or above average instructor evaluation B	Work obtained because of training C	Work obtained related to training D	Average or above average satisfaction with work E	Unemployed or in unrelated work not obtained because of trng. F	Dissatisfaction with work G
Very successful	Required	Required	Required	Required	Required		
Successful			Required	Required	Required		
Somewhat successful			Either C or D Required		Required		
Unsuccessful						Either F or G Required	

Organization of the Study

The organization of the study is as follows:

Chapter II -- A review of the literature pertinent to the present study.

Chapter III -- The instrumentation, the sample selection, the methodology employed in collecting and analyzing the data, and the statistical technique employed.

Chapter IV -- The results of the findings are reported.

Chapter V -- The summary of the findings, conclusions and implications for further study.

CHAPTER II

REVIEW OF LITERATURE

An examination of the literature pertaining to the identification of individuals who enter adult vocational education, the selection of individuals for adult vocational education and the evaluation of the outcomes of adult vocational education leads to the conclusion that research in the area is fragmentary. Until recently practically nothing could be found in the literature dealing with training of individuals for particular occupations which would cover the types of programs found under MDTA. The Manpower Development and Training Act of 1962 provided that the Secretary of Labor must report to the President on the Nation's manpower requirements, resources, use, and training and these reports do offer a source of information concerning the characteristics of those entering training, the success of the trainees in terms of completing training and initial placement of trainees following training. However, even these reports do not attempt to evaluate the outcomes of training at a period of time after the completion of training with attention to socio-psychological and/or socio-economic effects.

Recognizing that there is little research available that bears directly on this study, there is, nevertheless, a body of literature that is related to the present study. The following areas are held to be most meaningful for consideration and they shall be reviewed:

I. Factors affecting entrance into adult vocational education

II. Evaluation of adult vocational education

III. Evaluation of occupational status

IV. Character and influence of job satisfaction

V. Effects of demographic and personality characteristics

I. Factors Affecting Entrance into Adult Vocational Education

The decision of an individual to enter adult vocational education has received little attention by researchers. Actually, little research has been directed to the factors influencing entrance into vocational education at any level. However, the research on vocational development and occupational choosing and the paths elected to fulfill vocational choices made does bear on the ultimate choice made by adults to enter vocational education.

Career development has been studied extensively. Super and Bachrach[1] have distinguished three major theoretical approaches in the current occupational research. The first, trait and factor theory concentrates largely on individual differences in aptitudes, interests, achievement, and personality traits. E. K. Strong, Jr.[2] has shown that interests are relatively stable over time.

A broad social dimension ranging from extraversive to introversive characteristics has repeatedly shown a relationship to total interest pattern as determined by so-called vocational

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[1]D. E. Super and P. Bachrach, Scientific Careers and Vocational Development Theory (New York: Teachers College Columbia, 1957).

[2]E. K. Strong, Jr., Vocational Interests in Men and Women (Stanford: Stanford University Press, 1943).

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interest tests.[1] The other consistent relationship appearing repeatedly when interest and personality tests are administered to the same subjects is a correlation between interests and values. Sarbin and Berdie[2] reported significant correlations between Strong scales and similar-appearing scales on the Allport-Vernon Study of Values. Ferguson, Humphreys and Strong[3] demonstrated such correlations were defined by loadings on both interest and value scales. Super[4] obtained similar "interest plus value" factors from an analysis of correlations between scores obtained from the Strong Vocational Interest Blank and the Super Work Values Inventory. Rosenberg[5] demonstrated the important role of values in occupational choice and, in addition, described the social determination of choices and values, thus tying together

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[1]See, for example, M. D. Dunnette, W. K. Kirchner and J. De Gidio, "Relations Among Scores in Edwards Personal Preference Schedule, California Psychological Inventory, and Strong Vocational Interest Blank for an Individual Sample," Journal of Applied Psychology, XXXII (1958) 197-204; L. J. Stricker and J. Ross, A Description and Evaluation of the Myers-Briggs Type Indicator. Research Bulletin 62-6 (Princeton, New Jersey: Educational Testing Service, 1962).

[2]T. R. Sarbin and R. F. Berdie, "Relation of Measured Interests to the Allport-Vernon Study of Values," Journal of Applied Psychology, XXIV (1940) 287-296.

[3]L. W. Ferguson, L. G. Humphreys and F. W. Strong, "A Factorial Analysis of Interests and Values," Journal of Educational Psychology, XXXII (1941) 197-204.

[4]D. E. Super, "The Structure of Work Values in Relation to Status, Achievement, Interests, and Adjustment," Journal of Applied Psychology, XLVI (1961) 231-239.

[5]M. J. Rosenberg, Occupations and Values (Glencoe, Illinois: The Free Press, 1957).

trait theory and social systems theory.

In the tradition of social systems theory, Warner and Abegglen[1] have, for example, shown that a disproportionately high number of major business executives were the sons of business leaders. The studies of Porter[2] and Samson and Stefflre[3] also indicate the influence the occupation of the father bore on the selection of occupations by his children. It also has been found that the circumstances of rearing as a child including the socio-economic status and business contacts of the family influence career decision-making.[4]

The third approach, personality theory, stresses the personality structure of the individual and its dynamic development

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[1]W. L. Warner and J. C. Abegglen, Occupational Mobility in American Business and Industry, 1928-1952 (Minneapolis: University of Minnesota Press, 1955).

[2]J. Richard Porter, "Vocational Plans and Preferences of High School Senior Boys in Relation to Mental Ability, Emotional Adjustment, and Prestige Level of Father's Occupation," (unpublished doctoral dissertation, University of Pittsberg, 1951).

[3]Ruth Samson and Bufford Stefflre, "Like Father. . . Like Son?" The Personnel and Guidance Journal, XXXI (1952) 35-39.

[4]See, for example, August B. Hollingshead, Elmtown's Youth (New York: John Wiley and Sons, Inc., 1949); Paul G. Jensen and Wayne K. Kirchner, "A National Answer to the Question 'Do Sons Follow Their Fathers' Occupations?' " Journal of Applied Psychology, XXXIX (1955) 419-421; Charles C. McArthur, "Long Term Validity of the Strong Interest Test in Two Subcultures," Journal of Applied Psychology, XXXVIII (1954) 346-353; D. E. Super, The Psychology of Careers (New York: Harper and Brothers, 1957); Anne Roe, The Psychology of Occupations (New York: John Wiley and Sons, 1956).

as determinants of vocational development. In this area, Ginsberg[1] and his associates found that the process of occupational decision-making could be analyzed in terms of stages through which the organization of self-in-situation passes. Other theorists of note[2] have proposed theories of life-stage development also. Maslow[3] has identified the needs of the individual and advocated the search for need satisfaction as the individual's motivation. Anne Roe[4] has adopted Maslow's needs hierarchy and made it a part of her theory of vocational choice. She takes the position that it is the attitudes of the parents toward the child, expressed while the child is dependent upon his parents for need satisfaction, that structures the development of the personality and orients the individual towards his choice of a field of work.

It has been previously stated that Super and Bachrach[5] noted much attention has centered on a trait and factor approach in occupational research. The influence of aptitude on career decision-making has been investigated by many researchers and evidence indicates that an individual's aptitudes exercise some

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[1]Eli Ginsberg and others, Occupational Choice: An Approach to a General Theory (New York: Columbia University Press, 1951).

[2]See, for example, Delbert C. Miller and William H. Form, Industrial Sociology (New York: Harper and Bros., 1951); D. E. Super, The Psychology of Careers, loc. cit.

[3]A. H. Maslow, Motivation and Personality (New York: Harper, 1954).

[4]Anne Roe, loc. cit.

[5]Super and Bachrach, loc. cit.

determination in occupational choosing.[1] Researchers have stated that a person's inventoried interests provide a guide for the determination of his occupational choice if his orientation to careers is an "ambitious" one.[2] Other studies have demonstrated the relationship between values held and feelings about work and ways of living and earning a living.[3] In addition, Tiedeman and O'Hara have summarized studies of the influence of the sex role as a major influence in career decision-making for women and conclude,

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[1]George K. Bennett, Harold G. Seashore and Alexander Wesman, "Aptitude Testing: Does it 'Prove Out' in Counseling Practice," Occupations, XXX (1952) 584-598; John C. Cass and David V. Tiedeman, "Vocational Development and the Election of a High School Curriculum," Personnel and Guidance Journal, XXXVIII (1960) 538-545; D. Fryer, "Occupational Intelligence Standards," School and Society, XVI (1922) 273-277; Naomi Stewart, "AGCT Scores of Army Personnel Grouped by Occupations," Occupations, XXVI (1957) 5-41; Donald E. Super, Appraising Vocational Fitness by Means of Psychological Tests (New York: Harper and Bros., 1949); Super, The Psychology of Careers, loc. cit.; Robert L. Thorndike and Elizabeth Hagen, 10,000 Careers (New York; John Wiley and Sons, Inc., 1959).

[2]Cass and Tiedeman, loc. cit.; Charles C. McArthur and Lucia Beth Stevens, "The Validation of Expressed Interests as Compared with Inventoried Interests: A Fourteen-Year Follow-up," Journal of Applied Psychology, XXXIX (1955) 184-198; John A. Mierzwa, The Differentiation of Career Choice: A Study of the Choice of a Career in Science During a Two-Year Period in Late Adolescence (Cambridge: unpublished doctoral dissertation, Harvard Graduate School of Education, 1961); Roe, loc. cit.; Edward K. Strong, Jr., Vocational Interests 18 Years After College (Minneapolis: University of Minnesota Press, 1955); Super, Appraising Vocational Fitness by Means of Psychological Tests, loc. cit.; W. G. Fleming, The Kuder Preference Record-Vocational as a Predictor of Post-High School Educational and Occupational Choices, Supplementary Report Number 2 (Department of Educational Research, Ontario College of Education, University of Toronto, 1959).

[3]Eugene C. Lee, Career Development of Science Teachers: Personality Determinants at the Exploratory Stage (Cambridge: unpublished doctoral dissertation, Harvard Graduate School of Education, 1961); Mierzwa, loc. cit.; Robert P. O'Hara and David V. Tiedeman, "Vocational Self Concepts in Adolescence," Journal of Counseling Psychology, VI (1959) 239-301.

tentatively, that the resolution the woman makes of her sex role is the major career influence.[1]

The research on vocational development demonstrates the multiplicity of factors that enter into occupational choice; and the choice of an occupation must be directly related to the educational path necessary to move toward that choice. The decision of an individual to follow a particular vocational education path is not all that must be considered, however. Selection of the students who are allowed to enter vocational training is advocated.[2] Fowler notes that the decision to enroll in a vocational course is a dual decision -- made together by the student and the school authorities. He states the reasons for student selection:

> Proper selection of trainees makes it easier and less expensive for the vocational schools and classes to serve the needs and interests of the trainees, the employers, and the community. Trainees find their best opportunities. Training problems are fewer because the interests and abilities of the trainees more nearly match the demands made by the training. Employers secure better qualified workers. Because the welfare of both trainees and employers is better served, the

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[1] David V. Tiedeman and Robert P. O'Hara, Career Development: Choice and Adjustment (Princeton, New Jersey: College Examination Board, 1963), p. 84.

[2] Fred M. Fowler, Selection of Students for Vocational Training, Vocational Division Bulletin Number 232, Occupational Information and Guidance Series, Number 13 (Washington, D. C.: U. S. Government Printing Office, 1945); R. W. Selvidge, Principles of Trade and Industrial Teaching (Peoria, Illinois: The Manual Arts Press, 1946).

> welfare of the community as a whole is enhanced. Finally, more efficient training and lowered dropout rate among trainees means lowered cost for the training.[1]

Selvidge points out that general intelligence is required of individuals in the shop as well as in other pursuits of life. He states that "the degree of success attained depends upon the intelligence of the individual and his efforts."[2]

Wientage and DuBois[3] undertook an investigation to determine whether biographical data and measures of aptitudes, abilities, interests and motivational characteristics would be related to the success of adult students. The evaluative instruments that served as the best predictors of academic success were the traditional intelligence, reading comprehension and vocabulary tests. The researchers also reported that their findings in relation to biographical information on the students were positive and that such data could serve as a predictor of success for adult students.

Brookover and Nosow[4] approach the identification of those to

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[1]Fowler, op. cit., p. 65.

[2]Selvidge, op. cit., p. 293.

[3]King M. Wientage and Philip H. DuBois, Factors Associated with the Achievement of Adult Students (St. Louis: Washington University, Cooperative Research Project No. 133, Office of Education, U. S. Department of Health, Education and Welfare, 1964).

[4]Wilbur B. Brookover and Sigmund Nosow, "A Sociological Analysis of Vocational Education in the United States," Education for a Changing World of Work, Appendix III (Washington, D. C.: U. S. Department of Health, Education and Welfare, 1963).

be vocationally educated in a somewhat different manner than the others who have thus far been considered. They state that it should be recognized that almost all education is related to some vocational goal. Educational prerequisites have been established for almost all occupations and in the minds of the American citizenery educational programs of all types and all levels are directly related to some perception of occupational prerequisites. They point out that the American schools perform an extremely contributive function in the allocation of individuals to particular educational tracks and educational levels. The allocation of individuals begins early in the school history of the individual. The performance of the student and the teacher evaluations he accumulates are important determinants of the level and type of education the individual will receive.

> The grading and testing process determines to a large measure both the level of education a student is likely to receive and the curricula to which he will be assigned. The student with low grades and low aptitude and achievement test scores in the elementary school is not likely to go much beyond the minimum required level of secondary education. Such students will receive a minimum amount of general education and are likely to be guided into vocational programs which provide minimum training for occupations requiring less skill and lower educational prerequisites . . . One of the responses to this increasing emphasis upon the school's allocation process is the specialization of vocational curricula at various educational levels . . . Students who are directed into a specific vocational training in trades and industrial occupations, agriculture, or other fields early in their secondary school program will find that the range of occupational statuses to which they might aspire are drastically limited . . . It is generally understood that those with lower

> levels of early school achievement will be provided with a curriculum which can lead only to a restricted range of occupational choices. Such students are, therefore, directed into "vocational" curricula. . . .[1]

The above identification of the manner in which students are brought into vocational education at the secondary school level tends to identify those entering vocational education as adults. Ginsberg[2] supports the theory that decisions made by the individual and for the individual tend to become irreversible. Thus, preparation at the lower educational levels would limit or allow entrance into education beyond the secondary school level.

Adult vocational education in general, and Manpower Development training in particular, afford an opportunity for a certain group of individuals, whose past educational histories tend to limit educational opportunities, to receive additional education. The school leavers -- the dropouts -- because they have not completed high school, find many educational doors barred to them. Of the 151 trainees in the present study, 47, over 31 per cent, did not complete high school. Harold Smith believes that school dropouts face serious handicaps in attempting any additional training:

> Out of school training of the school dropout is particularly difficult to accomplish because of the emotional block that he has developed against any kind of formal learning. Any training, in or out of school, that he may be persuaded to undertake must necessarily begin in the very areas in which he failed

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[1] Ibid., pp. 40, 41, 43.

[2] Ginsberg and others, loc. cit.

in school and which he came so thoroughly to hate.[1]

Investigations to identify the personal characteristics of school dropouts and the reasons given by individuals for leaving school are abundant.[2] An examination of these studies would lead to agreement with Smith that the school leaver would probably face a difficult task in attempting further educational training. Therefore it is particularly interesting to note that in this present study there was no significant difference between the subjects who had completed high school and those who did not when the correlates of socio-psychological and socio-economic status were tested after training.

The lack of any difference between those who completed high school and those who dropped out may be attributed to the manner in which those who entered MDT programs were selected. It was necessary for those chosen to be either unemployed or underemployed. It was also necessary for them to meet minimum MESC

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[1]Harold T. Smith, Education and Training for the World of Work; A Vocational Education Program for the State of Michigan (Kalamazoo, Michigan: The W. E. Upjohn Institute for Employment Research, 1963), p. 37.

[2]See, for example, Paul H. Bowman and Charles V. Matthews, Motivations of Youth for Leaving School (Chicago: University of Chicago, Cooperative Research Project 200, U. S. Office of Education, Department of Health, Education and Welfare, 1960); Daniel Schrieber (ed.), Guidance and the School Dropout (Washington: National Education Association and American Personnel and Guidance Association, 1964); Charles M. Allen, Combating the Dropout Problem (Chicago: Science Research Associates, Inc., 1956); Harold C. Dillon, Early School Leavers, A Major Educational Problem, Publication No. 401 (New York: National Child Labor Committee, October, 1949); William L. Gragg, A Study of Factors Related to the Persistence of Pupils in Public Secondary Schools (unpublished doctoral dissertation, Cornell University, 1950).

selection criteria. Perhaps for individuals entering MDT programs, their labor market participation status was more meaningful than their educational backgrounds.

II. Evaluation of Adult Vocational Education

This study is concerned with one type of vocational education -- a government sponsored adult education program. A survey of the literature leads to the conclusion that there have been few investigations dealing with such training and the evaluation of such training.[1]

It seems appropriate to examine the literature relating to the evaluation of vocational programs for both in-school youth and adults. Because of the vast numbers of youth who receive some type of vocational education in school, more consideration has been given in the past to an evaluation of such offerings, although even this consideration is severely limited.

Ralph Wenrich[2] notes that vocational education programs are subject to direct evaluation by those who employ the product and

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[1]E. E. Ghiselli and C. W. Brown, Personnel and Industrial Psychology (New York: McGraw-Hill Book Company, Inc., 1949), p. 348; W. R. Mahler and W. H. Munroe, How Industry Determines the Need for and Effectiveness of Training (New York: The Psychological Corporation, 1952); W. McGhee and P. W. Thayer, Training in Business and Industry (New York: John Wiley and Sons, Inc., 1961), pp. 256-257; U. S. Department of Health, Education and Welfare, Office of Education, Division of Vocational Education, Research and Studies in Trade and Industrial Education, Misc. 3495 (Washington, D. C.: U. S. Government Printing Office, December, 1955).

[2]Ralph C. Wenrich, "Vocational Education," in Chester W. Harris (ed.) Encyclopedia of Educational Research (New York: The MacMillan Company, 1960), pp. 1562-1563.

by fellow workers in the occupation. He lists the following methods of evaluation: (a) advisory committees, (b) follow-up studies of the employment and achievement of those who have received instruction in vocational programs, (c) surveys of opinions and attitudes of trainees or students while enrolled and during employment, (d) more formal types of evaluation of shop, laboratory and classroom teaching methods and management in which the faculty engage in either individually or collectively.

Gerald Leighboy[1] states that vocational educators have tended to evaluate their programs in terms of the success of their graduates in occupations for which they have prepared. Usually such evaluations have been in terms of follow-up studies of students who have been in vocational education.[2] Brookover and Nosow would agree that the proper method of evaluation would require a follow-up of vocational trainees. They state:

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[1]Gerald B. Leighboy, "Trade and Industrial Education," in Chester W. Harris (ed.), Ibid., p. 1528.

[2]See, for example, Education for a Changing World of Work, Report of the Panel of Consultants on Vocational Education (Washington, D. C.: U. S. Department of Health, Education and Welfare, U. S. Government Printing Office, 1963); How High School Cooperative Trainees Fare in the Labor Market, Educational Research Series, No. 16 (Michigan State University, East Lansing, Michigan: Office of Research and Publications, College of Education, 1963); Occupational Adjustments of Vocational School Graduates, American Vocational Research Bulletin, No. 1 (Washington, D. C.: Committee on Research, American Vocational Association, Inc., June, 1940); W. C. Brown, Diversified Occupations Graduates of 1952: A Follow-up Study, Staff Research (Columbia, Missouri: Department of Industrial Education, University of Missouri, 1959); T. T. Vogeley, A Comparative Study of Distributive Education and Non-Distributive Education of High School Graduates (Charlottsville, Va.: Division of Educational Research, School of Education, University of Virginia, 1958).

> No matter how good a program may appear to be, its ultimate test rests in the labor market, for there is a strong and direct interaction between the schools and the labor market. And let us not underestimate those community norms which structure the labor market and influence the allocation of jobs among the socially acceptable and socially "marginal" groups in the community. Labor market, school, and community each mirror one another.[1]

It appears that studies of the employability of the vocationally educated serve as the best evaluative criterion. Follow-up surveys of in-school vocationally educated youth in the thirteen states comprising the North Atlantic region during the years 1951-59, a total of 20,669 students, suggest that approximately seven out of ten student graduates available for employment actually entered an occupation for which they were trained. Other local studies indicate that approximately this relationship may be true for the nation as a whole.[2]

It has been noted that graduates entering the armed services instead of employment frequently receive preferred military ratings and assignment because of their vocational training.[3] In noting that the North Atlantic study found unemployment rates among vocational education graduates to be significantly lower than among high school graduates generally, it is stated that:

> These data relate only to students placed in the occupational area for which they were trained. When considered from the standpoint

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[1] Brookover and Nosow, op. cit., pp. 22-23.

[2] Education for a Changing World of Work, op. cit., p. 91.

[3] Ibid.

> of total employment, results of the same survey indicated that in 1959 only 5 per cent of the graduates of trade and industrial programs were unemployed as compared with 15 per cent of all high school students in the United States who graduated in the same year. This fact becomes more significant when it is considered that the graduates were seeking jobs in those thirteen high unemployment States which contain approximately one-half of all redevelopment areas in the country. This fact would suggest that trade and industrial education offers concrete employment values even to those who choose not to follow the occupations for which they were trained.[1]

The President's Panel of Vocational Education Consultants cited studies showing similar successful placement of the vocationally educated in New York City in 1960, in eleven North Central States in 1953, and in Omaha, Nebraska in 1950.[2]

In citing studies concerning the placement of students enrolled in practical nurse training in high school programs, the Panel points out that of 15,000 students graduated from such programs in 1960, 97 per cent of those taking State licensing examinations became licensed. They further note that nearly all who pass the examinations are placed in the field for which they are trained.[3] These findings are particularly interesting in the light of the fact that each of the practical nurse graduates in the present study passed the Michigan State licensing examination.

In a Michigan study, a follow-up was made of 1855 high school

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[1] Ibid.

[2] Ibid., pp. 91-92.

[3] Ibid., pp. 94-95.

students who were reported as being cooperative trainees at the time of their graduation in 1962. Of the graduates who entered the labor market, 90 per cent of the office trainees, 57 per cent of the distributive trainees and 71 per cent of the industrial trainees were working in occupations for which they were trained.[1]

Although most of the programs of vocational education operated by the public schools and aided by Federal funds are offered to high school students, a substantial and increasing number of programs are provided through the public schools and other facilities for recent high school graduates, for high school dropouts who desire additional education, and for adults.

In 1961 the first group of technicians graduated from the area vocational education programs authorized by Title VIII of the National Defense Education Act of 1958. Of the 5,572 graduates who were available for placement, 82.9 per cent were placed in positions either directly or indirectly related to the field for which they were trained. Only 2.3 per cent were found to be unemployed in the follow-up study that was conducted nationally.[2]

The first effort of the Government to alleviate unemployment through adult education training programs since the post-depression days came into being when the Area Redevelopment Act was funded and the first project under the Act was announced in October, 1961. From the time this first project was announced through December,

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[1] How High School Cooperative Trainees Fare in the Labor Market, op. cit,

[2] Education for a Changing World, op. cit., pp. 95-96.

1964, almost 900 projects covering about 39,000 trainees in economically depressed areas were approved. By the end of 1964, training had been given in over 200 occupations.

The success of the training programs is attested to by the fact that over three-fourths of those who completed their training found employment, the vast majority of them in training-related jobs.[1] This is a particularly significant accomplishment in the face of serious obstacles of limited job opportunities in these redevelopment areas and the characteristics of the trainees. Those entering training who had long-term unemployment accounted for 38 per cent of the enrollees and 18 per cent of the trainees had no more than an elementary school education.[2]

The reports required of the Secretary of Labor by the Manpower Development and Training Act of 1962[3] furnish evaluative information concerning programs covered by MDTA. The evaluations take several forms: (a) information concerning the numbers of those who enter training who complete training, (b) information about the job-finding rate for trainees, (c) trainees' opinions of the training courses, and (d) employers' views of the trainees.

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[1] Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training (Washington, D. C.: U. S. Government Printing Office, 1963).

[2] Ibid., p. 135.

[3] Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training, loc. cit.; Manpower Research and Training under the Manpower Development and Training Act of 1962, Report of the Secretary of Labor (Washington, D. C.: U. S. Government Printing Office, 1965).

From the initiation of MDT programs in August, 1962 through December, 1964, some 91,000 unemployed and underemployed people had completed courses. A total of 58,000 persons completed training in MDTA programs in 1964.[1]

The Secretary's report notes that the dropout rate, from the start of the program, is 27 per cent, which is lower than the dropout rate from the secondary schools of our Nation.[2] The dropout rate for the 151 trainees who enrolled in the sample programs in this present study was 23.84 per cent, somewhat less than the national MDTA average.

The Secretary's reports make no distinction between trainees who find work in training-related jobs and those who do not. However, the reports[3] do indicate the employment status of those who completed training for whom such information was available. For those who completed training and for whom status was known, in 1963, 73.9 per cent were employed. In 1964, 71.7 per cent were employed. These national figures may be compared with percentages in the present study. For those who completed training and entered the labor market, 84.8 per cent were employed; 8.04 per cent were involuntarily unemployed and 7.14 per cent were voluntarily unemployed. The status of four trainees who completed training was unknown. Of these employed trainees who completed training, 86.31 per cent were employed in training-related work.

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[1] Ibid., p. 37.

[2] Ibid., p. 45.

[3] Ibid., p. 38.

It would be interesting if the government reports identified training and non-training related employment so that a comparison could be made between the subjects in this study and nationally.

The degree of trainee satisfaction with the programs they entered was shown in interviews by a private research firm in December, 1964 with nearly 1,000 graduates of MDTA courses. Ninety-two per cent of the respondents said that if circumstances warranted, they would enroll again.[1] However, 18 per cent of those interviewed complained that the courses were too short, too elementary, or too general. The subjects of the present study were asked, "Would you take the same course again if you had it to do over?" Of those responding to this question, those who had completed training responded very much like those who had dropped out. Of those completing training, 77.48 per cent said they would take the same course; 22.52 per cent said they would elect to take another course or take none at all. Of those dropping out, 74.19 per cent indicated they would take the same course; 25.81 per cent said they would take another course or none at all.

As a part of the nationwide survey to investigate the effectiveness of MDTA, over 350 employers of MDTA graduates were asked their opinions on training programs. Represented in the employer sample were small and middle-sized firms as well as large ones employing 1,000 or more workers.

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[1] Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training, op. cit., p. 137.

> Eighty-six percent of the employers found their MDTA trainees, as a whole, to be dependable workers. Fewer than 1 in 16 had been laid off by these employers for unsatisfactory work. Asked to rate the job performance of MDTA trainees as a group on a scale, 11 percent of the employers described it as "excellent," 26 percent rated it "better than average," and 42 percent said it was about on a par with other workers doing the same kind of work. Only 11 percent found it poor. The remaining 9 percent of employers reported mixed reactions.[1]

The present study did not have as a part of its design the evaluation of trainees by their employers. However, all employers who were contacted in an effort to obtain the final interview with trainees were extremely cooperative. Many of them allowed the interview to be conducted at their places of business on company time. Others helped to arrange meetings with the trainees and encouraged them to grant the interview. From the cooperation extended and the comments made by employers to interviewers, it would appear that MDTA trainees were viewed favorably.

The entrance of the Federal Government into the field of adult vocational education on a large scale will bring about the accumulation of a body of findings regarding the outcomes of such training. The pooled resources of the divisions of vocational education, the MDTA installations, and the employment security commission offices in the various states offer a task force that should be capable of compiling the first really important investigative study of the outcomes of adult vocational training. It is

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[1]Manpower Research and Training under the Manpower Development and Training Act of 1962, op. cit., p. 44.

to be hoped that with these combined resources the investigations will give consideration to more than the completion-dropout percentages of training programs and a follow-up of trainees and employers in the initial job placements following training. It is important to know these things; but of equal, if not greater, importance, is the knowledge of how the individual feels about his job and the role the job plays in his socio-psychological and socio-economic adjustment.

III. Evaluation of Occupational Status

Although the unidimensional occupational classification employed in MDTA publications is utilized in this study, it is necessarily of interest to realize that a variety of problems have complicated the evaluation of occupational status. It is unfortunate that this is so because it would be of considerable merit to this study if it were possible to evaluate any maintenance or change in the social status of MDTA trainees that might be attributed to training. Occupational status is given the greatest importance in the evaluation of social status because as Brookover and Nosow state:

> Occupation in American society is the most significant status-conferring role. While it is true that lowly occupations confer lowly statuses, at least they allow the individual to form some stable conception of himself and his position in the community. . . . . The job is not alone a means for subsistence -- a man without work may draw subsistence from the community but his status is different from one in which he holds a respectable job.[1]

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[1]Brookover and Nosow, op. cit., p. 46.

Kahl and Davis[1] would agree with this statement. They concluded after an analysis of nineteen stratification variables, that the single best indicator of social status or prestige was occupation. Leona Tyler[2] points out that various studies have shown that occupational level is a variable that people use in thinking about fields of work and they agree very well in judging it. In a useful summary of research concerned with the relationships between occupations and other social phenomena in the community, Nosow states ". . . . social classes are usually distinguished by their occupational compositions. . . ."[3]

It is generally agreed that George Counts[4] made the first major attempt to measure the prestige of occupations and it served as the model for a large number of investigations. In 1943 before undertaking the investigation of the prestige of occupations Mapheus Smith[5] summarized the findings of thirteen studies which had more or less followed the pioneering work of Counts. In his

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[1]J. Kahl and J. Davis, "A Comparison of Socio-Economic Status," American Sociological Review, XX (June, 1951) 317-25.

[2]Leona E. Tyler, The Psychology of Human Differences (New York: Appleton-Century-Crofts, 2nd Edition, 1956), pp. 322-23.

[3]Sigmund Nosow, "Social Correlates of Occupational Membership," in Sigmund Nosow and William H. Form (eds.) Man, Work, and Society (New York: Basic Books, 1962), p. 517.

[4]George S. Counts, "The Social Status of Occupations: A Problem on Vocational Guidance," School Review, XXXIII (January, 1925) 16-27.

[5]Mapheus Smith, "An Empirical Scale of Prestige Status of Occupations," American Sociological Review, VIII (April, 1943) 185-192.

study, Smith attempted to derive ten major occupational strata each consisting of occupations of similar prestige.

A study designed with the intent of overcoming some of the limitations of previous studies was the NORC study undertaken in 1947. From this study the North-Hatt prestige scale of occupations was developed.[1] Because it is the only American investigation to provide evaluations of the prestige standing of a large number of occupations by a national cross-section of respondents, a relatively large number of investigators have used the North-Hatt scales as a skeletal backbone for their own investigations.[2] This scale and the socio-economic scale of occupational levels developed by Alba Edwards[3] are examples of scales devised entirely on a vertical dimension providing only a unidimensional analysis.

Otis Dudley Duncan[4] constructed a two-dimensional scale, combining income level and educational status and adjusting these statistics for age differences to form a socio-economic status scale. It is most comprehensive in its inclusion of occupations; however, as other scales do, Duncan's suffers serious limitations

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[1]National Opinion Research Center, "Jobs and Occupations," Opinion News, IX (September 1, 1947) 4-51.

[2]Albert J. Reiss, Jr. and others, Occupational and Social Status (Glencoe, Illinois: The Free Press, 1961), p. 7.

[3]Alba M. Edwards, "A Social and Economic Grouping of the Gainfully Employed Workers in the United States," Journal of the American Statistical Association, XXVIII (December, 1933) 377-89.

[4]Otis Dudley Duncan, A Socio-Economic Index for all Occupations, (University of Chicago, Chicago, Illinois: Population Research and Training Center, Nov. 1959), mimeographed.

in applicability. Women workers were excluded from consideration in the construction of the scale; and Reiss[1] quotes Duncan as stating "One should not assume that the socio-economic index or its transformation to the NORC scale is significant in the second digit." It is this second digit that differentiates many occupations in the index from one another and inability to utilize this differentiation invalidates much discrimination.

Paul Hatt[2] explored the use of "situs" dimension in occupational stratification, employing the NORC data. He noted vertical movement within a situs and intersitus mobility. His exploration opens the way for both vertical and horizontal occupational analysis.

Morris and Murphy, as a result of further exploration of Hatt's work, have systematized the classification and define situs as "the horizontal differentiation of occupational structure."[3] They note that Anne Roe's two-dimensional classification of group and levels of occupations[4] meets their requirements for a situs dimension.

The emphasis here on occupational status as the single best indicator of social status is not made without regard to the work of sociologists who have studied status within communities

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[1]Albert J. Reiss, Jr. and others, op. cit., p. 130.

[2]Ibid., pp. 239-58.

[3]Richard T. Morris and Raymond J. Murphy, "The Situs Dimension in Occupational Structure," American Sociological Review, XXIV (April, 1959) 231-39.

[4]Anne Roe, loc. cit.

extensively. These community studies have resulted in the researchers identifying classes within communities; and the number of classes identified varies from the identification of two classes by Useems and Tangent[1] to the studies of Duncan and Artis[2] and Lenski[3] which did not attempt to identify status levels but rather resulted in the development of continuous status distributions. In well-known studies, Warner[4] and Hollingshead[5] identified five classes; and in another Warner[6] study, six classes were identified.

As a result of the research conducted within communities, various researchers have constructed scales which purport to determine social class by measuring facets of the life style of

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[1]J. Useem, P. Tangent, and R. Useem, "Social Stratification in a Prairie Town," American Journal of Sociology, XXXVII (June, 1942).

[2]O. D. Duncan and J. Artis, Social Stratification in a Pennsylvania Rural Community (Pennsylvania State Experimental Bulletin 543, October, 1951).

[3]G. Lenski, "American Social Classes: Statistical Strata or Social Groups?" American Journal of Sociology, LVIII (1952-53) 139-44.

[4]W. L. Warner et al., Democracy in Jonesville (New York: Harper, 1949).

[5]August B. Hollingshead, loc. cit.

[6]W. L. Warner et al., Social Class in America: A Manual of Procedure for the Measurement of Social Status (New York: Harper Torchbooks, 1960).

individuals.[1] Unfortunately the scales developed from the research within the communities were not applicable for this study. Some scales required the use of judges to determine status based on several criteria; and some scales required considerable sophistication to administer. Warner states that his Index of Status Characteristics "takes time, patience, and considerable experience."[2] Then, too, Warner's Index requires the evaluation of the type of house and the dwelling area of an individual in order to determine his ISC.

This review points out the problems concerning the classification of social status and occupational status which is the single best indicator of social prestige. The impracticallity of scales considered and their required need for much data over and above that which could be gained from a single home visitation led to the recognition of their inapplicability and the adoption of the unidimensional classification employed in this study.

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[1]For example, F. S. Chapin, The Measurement of Social Status by the Use of the Social Status Scale (Minneapolis, Minn.: University of Minn. Press, 1939); W. Sewell, The Construction and Standardization of a Scale of the Measurement of Socio-Economic Status of Oklahoma Farm Families (Oklahoma Agriculture Experimental State Technical Bulletin, No. 9, undated); R. A. Danley and C. E. Ramsey, Standardization and Application of a Level of Living Scale for Farm and Nonfarm Families (Ithica, N. Y.: Cornell University Agricultural Experimental State Memorandum, 362, July, 1959); W. L. Warner et al., Social Class in America, op. cit., Parts Three and Four.

[2]Ibid., p. 217.

IV. Character and influence of job satisfaction

The degree of satisfaction an individual feels his job provides is a composite of contributing factors that can only be evaluated by each individual. Studies of job satisfaction have identified the factors individuals feel enter into this evaluation.[1] However, the weight given to the various factors is something that is entirely personal. A stated hourly wage earning may indicate a certain contribution to overall job satisfaction for one individual while the same stated wage may be perceived as making a markedly different contribution to the satisfaction of the job for another individual. It is the individual's perception of the components that define his framework for evaluating job satisfaction that is expressed when an individual appraises his degree of job satisfaction.

Katzell notes that the term "job satisfaction" is employed in a variety of ways:

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[1]For example, Percy E. Davidson and H. Dewey Anderson, Occupational Mobility in an American Community (Stanford, Californis: Stanford University Press, 1957); Manpower Report of the President and a Report on Manpower Requirements, Resources, Utilization, and Training, loc. cit.; Gladys L. Palmer et al., The Reluctant Job Changer (Philadelphia: University of Pennsylvania Press, 1962); Gladys L. Palmer, Labor Mobility in Six Cities (New York: Social Science Research Council, 1954); Herbert S. Parnes, Research on Labor Mobility (New York: Social Science Research Council, 1954); Lloyd G. Reynolds, The Structure of Labor Markets (New York: Harper Brothers, 1951); Lloyd G. Reynolds and Joseph Shister, Job Horizons, A Study of Job Satisfaction and Labor Mobility (New York: Harper Brothers, 1949); Frederick Herzberg and others, Job Attitudes: Review of Research & Opinion (Pittsburg: Psychological Service of Pittsburg, 1957); Robert Bullock, Social Factors Related to Job Satisfaction, A Technique for the Measurement of Job Satisfaction (Columbus, Ohio: The Bureau of Business Research, Ohio State University, 1952).

> To the extent that there is consensus, it would appear to exist along the following lines. Job satisfaction is the verbal expression of an incumbent's evaluation of his job. The verbal evaluation is made operational by some form of attitude questionnaire or scale by means of which the incumbent rates his job on a continuum of "like-dislike" or approximate synonyms such as "satisfied-dissatisfied."[1]

Literature relating to job satisfaction stresses that job satisfaction results from an interaction between workers and their job environments. The workers possess values or needs and their jobs are more or less instrumental in providing fulfillment or reinforcements. The interactions between the workers and their jobs not only determine the individuals' feelings about their work but also their behavior on the job.[2]

This study holds that the degree of satisfaction a job offers to an individual is important to his socio-psychological status. MDTA trainees were asked to appraise the degree of satisfaction that their last full-time jobs before entering training and the jobs they held at the three-month period following training offered them. Matched controls were asked to appraise their degree of job satisfaction at the three-month period so that a trainee-control comparison might be made. The degree of job satisfaction scale employed ranked satisfaction from "none at all"

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[1]Raymond A. Katzell. Chapter Fifteen, Man In a World at Work, Henry Borow, (ed.), (Boston: Houghton Mifflin Co., 1964), p. 342.

[2]Anne Roe, loc. cit.; J. J. March and H. A. Simon, Organizations (New York: John Wiley and Sons, 1958); R. H. Schaffer, "Job Satisfaction as Related to Need Satisfaction in Work," Psychological Monographs, LXVII, No. 14, (1953).

to "very much."

It is apparent that literature relating to the identification of worker job satisfaction is voluminous. Among the first pioneering investigations that gave consideration to the nature, causes and correlates of job satisfaction were the works of Hoppock and Houser.[1] Other early efforts to assay job satisfaction came from the realization that emphasis must be placed upon interpretation of employee behavior in terms of the workers' sentiments and attitudes rather than in terms of "logical" economic self-interest alone. The Harvard School of Business Administration under the leadership of Elton Mayo led in this phase of research; and the research conducted there came to be known collectively as the Western Electric Researches and was reported in various publications.[2] In very recent reporting, Geraldine Pederson-Krag went further in urging management to adopt a psychoanalytic approach to understanding the uncertainties, intangibles and imponderables that play a part in the conscious and unconscious motivations of men at work.[3] It has been recognized that individuals differ greatly in the degree of satisfaction

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[1]Robert Hoppock, Job Satisfaction (New York: Harper and Brothers, 1935); J. D. Houser, What People Want From Business (New York: McGraw-Hill Book Company, 1938).

[2]See, for example, Elton Mayo, The Social Problems of an Industrial Civilization (Andover, Mass.: Andover Press, 1945); F. J. Roethlisberger, Management and Morale (Cambridge, Mass.: Harvard University Press, 1941); T. N. Whitehead, Leadership in a Free Society (Cambridge, Mass.: Harvard University Press, 1937).

[3]Geraldine Pederson-Krag, Personality Factors in Work and Employment (New York: Funk and Wagnells Company, 1965).

their jobs offer them. Herzberg and others in a comprehensive work have reported many studies which demonstrate that factors contributing to the variance in job satisfaction may be (a) differences in the workers themselves and (b) differences in the features of the job which serve as stimuli (e.g., supervision, pay, opportunity for advancement).[1]

In this same study, the authors summarized what was presently known in 1955 about the effects of job attitudes on productivity, absenteeism and turnover, accidents, grievances and illness rates. They state:

> The preponderance of the data adds up to the following picture: in approximately half of the studies reported workers with positive job attitudes outproduced workers with negative job attitudes. . . . Positive job attitudes were more unequivocally related to the worker's tendency to stay with the job, either in the day-to-day decisions as to whether to report in the face of a minor illness or family crisis, or in the more important decisions to be made about job termination. There is some evidence to show that workers with positive job attitudes have fewer accidents and fewer psychosomatic illnesses . . . Thus it appears that the consensus of industrial psychologists and management that positive job attitudes are a tremendous asset to industry is supported by much of the experimental evidence now available.[2]

As stated earlier, workers hold values concerning their jobs. Some of the values held are at the manifest level and are readily

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[1] Herzberg and others, loc. cit.

[2] Ibid., pp. 35-36.

apparent when defined in terms of concrete things such as income, opportunity or security. Also in operation within each individual may be values less apparent. Sets of such basic values have been identified by various investigators.[1]

It is not possible to say that there is complete agreement among authorities concerning the number and definitions of values held. However, it appears that values relevant to work and workers fall into the three broad categories identified by Ginzberg et al.[2] and Rosenberg.[3] These values relate to: (a) the work itself (including the composition of the work and its achievement); (b) interpersonal relations; (c) external conditions and things obtained through work (monetary rewards, etc.).

Studies have been conducted that have attempted to identify: each job characteristic in terms both of the amount desired and of the importance of obtaining it;[4] the importance of various job-related needs;[5] the hierarchial importance of achieving various values;[6] the relationship between intensity of values held and the

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[1]D. E. Super and J. O. Crites, Appraising Vocational Fitness (New York: Harper and Brothers, rev. ed., 1962); Eli Ginzberg, et al., loc. cit.; Rosenberg, loc. cit.

[2]Ginzberg et al., loc. cit.

[3]Rosenberg, loc. cit.

[4]L. W. Porter, "A Study of Perceived Need Satisfaction in Bottom and Middle Management Jobs," Journal of Applied Psychology XLV (1961) 1-10.

[5]Schaffer, loc. cit.

[6]M. J. Rosenberg, "Cognitive Structure and Attitudinal Affect," Journal of Abnormal and Social Psychology, LIII (1956) 367-372.

effect on job satisfaction or attainment or negation.[1]

Significant studies of labor market mobility have investigated job satisfaction as it contributed to reasons for leaving a particular job and reasons for electing to take a job. Because the studies have been conducted in different market areas and at different periods of time and with groups of different personal characteristics, it is difficult to assimilate factors that would be applicable to all the studies. Parnes notes that the results of the studies "have been so diverse as to defy generalization. . ."[2]

One of the problems in interpreting the importance of various factors is that few of the mobility researchers used similiar terminology and factor definitions. While some of the researchers were quite explicit in defining factors,[3] others used encompassing terms that are subject to interpretation and misinterpretation. The U. S. Department of Labor data falls into the latter category.[4]

A consideration of more notable studies that were concerned with job satisfaction reveals only one study in which the major motivation for changing occupations was largely financial.[5]

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[1]Schaffer, loc. cit.; H. P. Froelich and L. Wolins, "Job Satisfactionas Need Satisfaction," Personnel Psychology, XIII (1960) 407-420.

[2]Parnes, op. cit., p. 147.

[3]Ibid., pp. 152-53; Reynolds and Shister, op. cit., pp. 6-7.

[4]Manpower Report of the President and a Report of Manpower Requirements, Resources, Utilization and Training, op. cit., p. 190.

[5]Davidson and Anderson, op. cit., p. 169.

While wages were mentioned as one of the considerations of job satisfaction in most of the studies cited in this chapter, workers gave more importance to considerations such as the physical characteristics of the job, degree of independence and control, fairness of treatment, and human relations.

In this study the subjects were not asked to identify and rank the considerations entering into their job satisfactions. They were asked in relation to specific jobs held at specific times: How would you say you liked the job? Because of the composition of the subjects of this study they were offered five responses worded in terms deemed suitable and these responses form the degree of satisfaction continuum. The responses were: very much; pretty much; so-so; not very much; not at all.

From personally interviewing many of the subjects of this study and discussion with other personal interviewers who interviewed subjects of the study, it is readily apparent from the verbalized reasoning that the subjects engaged in before finally selecting one of the responses above that serious consideration was given to the factors researchers have identified as being of importance to workers.

Effects of demographic and personality characteristics

The purposes for which the Manpower Development and Training Act was enacted were three: the alleviation of unemployment; the reduction of wasted manpower in underemployment; the training of individuals to fill positions in job categories in which worker shortages existed. Regardless of the quality of the training

offered and the efforts of the trainees during training, the purposes which brought about MDTA can only be satisfied in the labor market. It is the success or failure of trainees in the labor market that will or will not justify the continuance of this governmental educational endeavor, at least in its present form.

As noted in Chapter I, the evaluation of the outcomes of MDTA in Michigan is made extremely difficult by the changes in the labor markets that have occurred in recent months. The availability of jobs for those seeking them has reduced the need for training and the advantage that accrues to the trained worker. Only a longitudinal study over a period of time will show the long-term effects of training or the lack of it. Significant studies that emphasize the dynamics of the labor market and worker participation in local labor market situations have been made.[1]

While it is recognized that the dynamics of the labor market is crucial in any consideration of labor market participation, it is also recognized that such variables as ethnicity, age, education and marital status exert crucial influences. Significant investigations have been concerned with the considerations given to these variables by employers in both the selection and place-

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[1]See, for example, Palmer, loc. cit.; Reynolds and Shister, loc. cit.; Reynolds, loc. cit.; Parnes, loc. cit.; C. A. Myers and G. P. Shultz, The Dynamics of a Labor Market (New York: Prentice-Hall, 1951); E. W. Noland and E. W. Bakke, Workers Wanted (New York: Harper and Brothers, 1949); C. A. Myers and W. R. Maclaurin, The Movement of Factory Workers (New York: Wiley and the Technology Press, 1943); D. Yoder and D. G. Patterson, Local Labor Market Research (Minneapolis: University of Minnesota Press, 1948); W. L. Warner and J. O. Low, The Social System of the Modern Factory (New Haven: Yale University Press, 1947).

ment of employees.[1] Other studies have been concerned with the job-seeking patterns and mobility of workers in relation to their demographic characteristics.[2]

Studies have demonstrated repeatedly that ethnicity is crucially related to opportunities available to workers in given labor markets, companies, and departments within companies.[3] Likewise, age has been subject to investigation and it has been found that older workers are unwilling to move from a given community to search out job opportunities; and they demonstrate an unwillingness to move in search of work when faced with unem-

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[1]F. T. Malm, "Hiring Procedure and Selection Standards in the San Francisco Bay Area," Industrial and Labor Relations Review, VII (1955) 235-252; Marvin J. Levine, "Training and Retraining in American Industry -- An Appraisal of the Evidence as an Ameliorative for Unemployment," Labor Law Journal, XV (1964) 634-48; Ray Marshall, "Union Racial Practices and the Labor Market," Monthly Labor Review, LXXXV (1962) 269-70; Noland and Bakke, op. cit., pp. 2-10.

[2]Myers and Shultz, op. cit., pp. 23-27; Parnes, op. cit., pp. 100-124; Reynolds, op. cit., pp. 24-25; M. S. Gordon and A. H. McCorry, "Plant Relocation and Job Security: A Case Study," Industrial and Labor Relations Review, XI (1957) 13-36; D. J. Bogue, A Methodological Study of Migration and Labor Mobility in Michigan and Ohio in 1947 (Oxford, Ohio: Scripps Foundation for Research in Population Problems, 1952), Chapter 6.

[3]Sigmund Nosow, "Labor Distribution and the Normative System," Social Forces, XXXV (1956) 25-33; I. Sobel and R. C. Wilcock, "Labor Market Behavior in Small Towns," Industrial and Labor Relations Review, VII (1954) 519-23; Warner and Lowe, loc. cit.; O. Collins, "Ethnic Behavior in Industry: Sponsorship and Rejection in a New England Factory," American Journal of Sociology, LI (1946) 293-98; W. F. Whyte, Industry and Society (New York: McGraw-Hill Book Co., Inc., 1946), pp. 107-22; Marshall, loc. cit.

ployment for one reason or another.[1]

Important studies have attempted to investigate employer employment practices and to identify the personal variables that employers state are of utmost concern when worker recruitment and placement is considered. Noland and Bakke[2] investigated employment requirements in two diverse employment locations, one in the North and the other in the South. They found that in both of these industrial locations personal and social characteristics were influential in the consideration given by employers. They identified sex, education, experience, color, age, personality and physique as important considerations.

Perhaps it is because demographic characteristics are so readily identifiable that significant investigations have attempted to study their effects in the worker-work situation. Equally likely is that the lack of research concerning the contributions of personality characteristics to labor market participation is due to the difficulty of assessing personality. Tyler raises two questions concerning the importance of personality and acknowledges the difficulty of answering them:

> What personality characteristics prevent a person from making a good adjustment to any kind of work situation? . . . . What particular patterns of personality characteristics are necessary for success and satisfaction in particular occupations? . . . . Unfortunately

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[1]A. J. Reiss, Jr. and E. M. Kitagawa, "Demographic Characteristics and Job Mobility of Migrants in Six Cities, Social Forces, XXXII (1953) 71-75; Bogue, loc. cit.; Gordon and McCorry, loc. cit.; Levine, loc. cit.

[2]Noland and Bakke, loc. cit.

> we do not have a technology of personality measurement adequate for a real attack on these research questions.[1]

Anne Roe[2] has noted that the lack of any general consensus of personality theory is a considerable drawback in assessing personality. She also adds that the structure of personality is defined quite differently by different writers:

> How wide a range of characteristics one subsumes under the rubric "personality" is largely a matter of preference -- a person is divisible only conceptually. It may be convenient to regard abilities and aptitudes, even interests, as distinct from personality. In fact, however, they all develop in the interplay between genetic endowment and personal experience and between one another.[3]

In spite of the lack of theoretical frameworks and firm definitions, test constructors have put forth great effort to develop instruments for assessing personality and its psychological constructs.[4] The difficulties of individual assessment have been

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[1]Leona A. Tyler, "Work and Individual Differences," in Henry Borow (ed.), Man in a World at Work (Boston: Houghton Mifflin Company, 1964), p. 188.

[2]Anne Roe, "Personality Structure and Occupational Behavior," in Henry Borow (ed.), Man in a World at Work (Boston: Houghton Mifflin Company, 1964), p. 201.

[3]Ibid., p. 197.

[4]For descriptions of such instruments and critical appraisals of them, see O. K. Buros (ed.), The Sixth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1965).

pointed out by many writers;[1] but numerous studies which have attempted to identify some criterion outcomes in relation to measured personality variables have been undertaken.

Few studies have attempted to identify the relationship between personality characteristics possessed by individuals and the behavior of these individuals in the labor market; and those that have been made have been concerned with the assessment of managerial effectiveness.[2] The vast majority of the studies available have been designed to test the relationship between

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[1]See, for example, W. H. Whyte, "The Fallacies of 'Personality' Testing," Fortune, L (1954) 117-21 and 204-210; A. Ellis, "Recent Research with Personality Inventories," Journal of Consulting Psychology, XVII (1953) 45-49; David C. McClelland, "Issues in the Identification of Talent," in David C. McClelland and others, Talent and Society (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1958).

[2]T. A. Mahoney, T. H. Jerdee and A. N. Nash, "Predicting Managerial Effectiveness," Personnel Psychology, XIII (1960) 147-163; T. A. Mahoney and others, "Identification and Prediction of Management Effectiveness," Personnel Administration, XXVI (1963) 12-22; L. J. Carleton, "A Study of the Relationship of the Rated Effectiveness of School Administrators and Certain of their Personality and Personal Background Characteristics" (unpublished doctoral dissertation, University of Oregon, Eugene, 1956); L. D. Goodstein and W. J. Schrader, "An Empirically-Derived Managerial Key for the California Psychological Inventory," Journal of Applied Psychology, XLVII (1963) 42-45.

personality characteristics and school achievement at various educational levels.[1] Some attempts have been made to find relationships between personality characteristics and deviant behavior.[2]

The California Psychological Inventory is the principal psychological instrument utilized in this study. Studies using the CPI note: efficient managers are aggressive[3] and successful managers are high in drive and self-acceptance; they are non-authoritarian and non-feminine and are very communicative.[4]

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[1]See, for example, Betsey Swisdak and Sister M. Rita Flaherty, "A Study of Personality Differences between College Graduates and Dropouts," Journal of Psychology, LVII (1964) 25-28; J. G. Snider and T. E. Linton, "The Predictive Value of the California Psychological Inventory in Discriminating between the Personality Patterns of High School Achievers and Underachievers," Ontario Journal of Educational Research, VI (1964) 107-115; J. L. Holland, "The Prediction of College Grades from the California Psychological Inventory and the Scholastic Aptitude Test," Journal of Educational Psychology, L (1950) 135-42; H. G. Gough, "Factors Relating to the Academic Achievement of High School Students," Journal of Educational Psychology, XL (1949) 65-78; Lois Jean Gill and B. Spilka, "Some Nonintellectual Correlates of Academic Achievement among Mexican-American Secondary School Students," Journal of Educational Psychology, LIII (1962) 144-49; L. A. Rosenberg and others, "The Prediction of Academic Achievement with the California Psychological Inventory," Journal of Applied Psychology, XLVI (1962) 385-88.

[2]D. R. Peterson and H. C. Quay, "Extending the Construct Validity of a Socialization Scale," Journal of Consulting Psychology, XXIII (1959) 182; R. R. Knapp, "Personality Correlates of Delinquency Rate in a Navy Sample," Journal of Applied Psychology, XLVII (1963) 68-71; L. D. Jaffee, and N. A. Polansky, "Verbal Inaccessibility in Young Adolescents Showing Delinquent Trends," Journal of Health and Human Behavior, III (1963) 105-11; H. G. Gough, "Theory and Measurement of Socialization," Journal of Consulting Psychology, XXIV (1960) 23-30.

[3]Mahoney, Jerdee and Nash, loc. cit.

[4]Goodstein and Schrader, loc. cit.

Briefly stated, studies of student achievement that have employed the California Psychological Inventory have found:

1. High grades are negatively related to capacity for status, sociability, social presence, self-acceptance, and flexibility; positively related to well being, responsibility, socialization, self-control, good impression, achievement via conformity, achievement via independence, psychological mindedness and femininity.[1]

2. Students who entered and successfully completed teacher preparation programs were compared with those who entered and either withdrew or failed. The groups measured the same on all CPI scales except sociability, socialization and responsibility on which the successful students were higher and flexibility on which the successful students were lowest.[2]

3. In a study of college freshmen, those who went on to graduate were higher than those who dropped out on all scales of the CPI except flexibility and femininity; the graduates were significantly higher on sociability, capacity for status and achievement via conformity.[3]

4. The California Psychological Inventory was better than the Minnesota Muliphasic Personality Inventory for differentiating

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[1]Holland, loc. cit.

[2]G. W. Durflinger, "Academic and Personality Differences between Women Students Who Do Complete the Elementary Teaching Credential Program and those Who Do Not," Educational and Psychological Measurement, XXIII (1963) 775-83.

[3]Swisdak and Flaherty, loc. cit.

good and poor students.[1]

It can be seen that these studies are in little agreement on any scale except the Flexibility scale. The agreement here is that good students score lower on this scale. When it is considered that low flexibility is synonymous with high rigidity, this finding appears to be in disagreement with the findings regarding rigidity. Since the Gough-Sanford Rigidity Scale was administered to the subjects of this study, a brief summary of an excellent review of the literature on rigidity by Fisher[2] follows:

1. There may be real differences in the results given by different kinds of rigidity measures when administered to the same group.
2. Several general character traits and attitudes seem to be related to degree of "rigidity."
3. Persons who have been isolated from the world to some degree by physical handicaps such as blindness or deafness tend to be more "rigid" than persons of the same intellectual level who have not been isolated.
4. Evidence indicates that the person with organic pathology tends to be more "rigid" than the individual without organic pathology.

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[1] L. A. Rosenberg and others, loc. cit.

[2] Seymour Fisher, "An Overview of Trends in Research Dealing with Personality Rigidity," Journal of Personality, XVII (1948-49) 342-50.

5. Neurotics seem to be more "rigid" (and sometimes unusually less "rigid") than normal persons, and certain kinds of neurotics are more "rigid" than other kinds of neurotics.

6. Specific kinds of schizophrenics seem to be more "rigid" than other kinds of schizophrenics.

7. Clearly, the "rigidity" of persons of low intelligence is generally greater than the "rigidity" of persons of high intelligence.

8. Within a group of individuals of the same intellectual level, there are real differences in "rigidity."

It is not the place of this present study to test this apparent disagreement concerning rigidity. It would seem that the researchers whose findings are in disagreement with Fisher's comprehensive survey of the literature should give consideration to their findings. It seems incongruous that high achievers, the better students, should be lower in flexibility (higher in rigidity) than the less successful students. Rokeach[1] has stated that "persons high in rigidity will be slower in overcoming individual sets than persons low in rigidity. . ." He defines rigidity as pointing "to difficulties in overcoming single sets or beliefs encountered in attacking, solving, or leaving specific

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[1] M. Rokeach, W. C. McGovney and R. Denney, "A Distinction Between Dogmatic and Rigid Thinking," Journal of Abnormal and Social Psychology, L (1955) 87-88.

tasks or problems."[1] Rokeach concludes that rigidity leads to difficulties in thinking analytically.

This study is interested in determining the socio-psychological statuses of trainees and controls before training programs are entered. It is interested in determining the socio-psychological statuses of trainees and controls after training to determine whether training might have had any measurable socio-psychological effects. Whether it is possible to measure change over such a short period of time is unknown. Psychological research during the past fifty years or so has accumulated much data on personality and ability changes over the life of an individual.[2] Unfortunately almost all of the accumulated data was gathered before the days of factored personality structure measurement; in fact, much of it was not even expressed in measurement terms. Consequently,

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[1]Rokeach, The Open and Closed Mind, op. cit., p. 183.

[2]See, for example, E. L. Kelley, "Consistency of the Adult Personality," American Psychologist, X (1955) 659-81; W. Dennis, Current Trends in Industrial Psychology (Pittsburg: University of Pittsburg Press, 1949); J. W. MacFarlane, "The Study of Personality Development," in R. B. Barker and others, Child Behavior and Development (New York: McGraw-Hill Book Company, 1943); R. G. Kuhlen, "Age Differences in Personality during Adult Years," Psychological Bulletin, XLII (1945) 333-58; R. B. Cattell, Personality: A Systematical, Theoretical and Factual Study (New York: McGraw-Hill Book Company, 1950).

only the data on abilities appears to merit much consideration;[1] and the present study is concerned with socio-psychological variables, not abilities.

In writing of the permanency of personality, Roe states:

> Personality development is also lifelong, and while its main features seem clearly to be laid down very early, it too is not fixed in any rigid mold. Occupational behavior is as conditioned by personality as it is expressive of it. . . . Personality development is also affected by . . . life experiences, including occupational ones.[2]

On the same point, constancy of personality, Cattell writes:

> Personality remains more constant than is popularly supposed, retest r's around 0.7 being found after a lapse of twenty years. However specific attitudes and interests are far less stable than general temperament values and others factors. To the social psychological question of how far the constancy depends on a constancy of cultural milieu no full answer is yet possible, though evidence available points to constancy of most of personality, despite cultural transplantation.[3]

Cattell adds encouragement to this study to attempt to determine whether any socio-psychological changes occur as a result of MDTA when he notes, "Observation, in the realm of personality fluctuation, has been so limited and crude that there is scarcely any firm ground on which a theory of any real subtlety could as yet arise or be checked."[4]

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[1] R. B. Cattell, Personality and Motivation Structure and Measurement (Yonkers-on-Hudson, New York: World Book Company, 1957).

[2] Roe, "Personality Structure and Occupational Behavior," op. cit., p. 198.

[3] R. B. Cattell, Personality and Motivation Structure and Measurement, op. cit., p. 631.

[4] Ibid., p. 596.

Summary

The review of the literature demonstrates the lack of attention that researchers have given to adult vocational education. It has indicated that occupational status and job satisfaction are important criteria to be considered in evaluating the status of an individual in the world of work. While studies using psychological and socio-psychological instruments are found, the body of research concerned with changes in personality is so limited and dated as to offer few guidelines.

CHAPTER III

THE SOURCES OF DATA, INSTRUMENTATION AND METHODOLOGY

Sources of Data

Basic background data were gathered from files made available by the Michigan Employment Security Commission offices in the four metropolitan labor market areas. These basic background data were utilized in the initial selection of matched trainee-control pairs. Additional socio-economic and socio-psychological data were obtained through structured personal interviews and the administration of the socio-psychological inventory selected for this study.[1]

Interview Forms

The structured personal interview forms used in this study were designed, tested and used in a larger study directed by Dr. Sigmund Nosow, Michigan State University, professor and research associate, School of Labor and Industrial Relations.

The pre-program interview form was designed to gather complete socio-economic background information from the trainees and their paired controls. This information was used to determine the socio-economic status of the trainees before entering MDTA training and to determine which of the individuals whose names and background data

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[1]Some of the basic data, interview forms and socio-psychological inventories were employed in a larger related study.

ere presented by the MESC as potential controls were actually uitable for pairing. It was particularly necessary to ascertain hether indeed the individuals had been interested in a particular rogram or simply training in general. It was also the only way in hich the race of the suggested subjects could be actually determined s the MESC does not record this information. A pre-program nterview form, modified for use in this study, is found in Appendix E.

The post-program interview form was designed to gather socio-conomic information from the trainees and their paired controls hree months after the training programs the trainees entered had een completed. This post-training interview information enabled omparisons to be made between trainees before and after training and etween trainees and their paired controls at the post-program hree-month period. A post-program interview form is found in ppendix E.

Objective Measuring Instruments

Instruments used in this study that were objective in nature ncluded the General Aptitude Test Battery, the scores of which were rovided by the Michigan Employment Security Commission offices and hich were utilized in matching pairs, with special emphasis placed n the G score, Intelligence, of that battery in this study; four elected scales of the California Psychological Inventory: ociability, Self-acceptance, Sense of Well-being and Responsibility;

the Gough-Sanford Rigidity Scale; and Items 51-75 from Maslow's urity Inventory.[1]

These measuring instruments were selected on the basis of the lowing considerations: (a) the relevance of the factors they rport to measure to the factors selected for measurement in this udy on the basis of the results of previous research and consulta- on with experts in the field; (b) evidence as to the validity and liability of the instruments; (c) the need for easily administered jective instruments; (d) their suitability for the population ncerned; (e) the length of time the administration of the struments would require.

Because of the composition of the population studied, rsonality instruments of the projective type were eliminated. Many struments were examined and were excluded as unsuitable for the bjects of this study. The Minnesota Multiphasic Personality ventory, for example, seemed to be orientated too much towards ntal illness rather than towards the differentiation of mentally althy individuals. The California Psychological Inventory seemed re appropriate for making this differentiation. Recognizing the ading disability of many of the subjects which would increase the me of administration, it was decided that all eighteen scales of e CPI could not be administered. Then, too, many of the scales emed inappropriate for the purposes of this study. Therefore,

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[1]The four selected CPI Scales, the Gough-Sanford Rigidity ale, and Maslow's S-I Inventory that form the socio-psychological ventory employed in this study are found in Appendix E. General titude Test Battery scores were supplied by the MESC. In keeping th MESC wishes, no part of the GATB is reproduced in this study.

selected scales were chosen for administration on the basis of their suitability to this study. The Gough-Sanford Rigidity Scale was selected for inclusion in the socio-psychological scale of this study because it served to measure the flexibility-inflexibility continuum to the same extent that the Flexibility scale of the CPI did[1], but the wording of the items in the Gough-Sanford scale seemed more suitable for the subjects of this study. Then, too, Bournazos[2] had used the scale in his study of the effects of vocational training.

General Aptitude Test Battery (Revised, B-1002)[3]

Clark L. Hull stated in 1928 that a comprehensive vocational guidance program would only be possible when a single universal battery of tests which would sample so far as possible all of the important aptitude determiners and which would have separate forecasting formulae for each of the more important type occupations could be constructed.[4] The GATB, developed by the United States Employment Service, is an attempt not only to differentiate the significant abilities of man important in vocational success but also

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[1]Milton Rokeach, The Open and Closed Mind, (New York: Basic Books, 1960), p. 418; Personal correspondence with the Consulting Psychologists Press, Inc., Palo Alto, California, publisher of the CPI and the Gough-Sanford Rigidity Scale; May 8, 1966.

[2]Kimon Bournazos, Vocational Education; Its Effects on Career Patterns of High School Graduates (Michigan State University, East Lansing, Michigan: Educational Research Series, Number 18, a revision of a doctoral thesis, 1963).

[3]United States Employment Service, Guide to the Use of General Aptitude Test Battery (Washington, D.C.: United States Department of Labor, July, 1958).

[4]Clark L. Hull, Aptitude Testing (New York: World Book Company, 1928).

to relate these abilities to the major occupations in American industry. The basic assumption underlying the GATB is that a large variety of occupations may be clustered into groups according to similarities in the abilities required. This makes it possible to test all of a person's vocational abilities at one sitting and to interpret his scores in terms of the entire range of occupations.

Specifically, the United States Employment Service GATB is a combination of twelve tests which measure nine aptitudes. These aptitudes were identified by factor analysis studies of fifty-nine different tests, fifty-four of them constructed by the USES. The nine aptitudes identified by the GATB are:

G - Intelligence
V - Verbal Aptitude
N - Numerical Aptitude
S - Spatial Aptitude
P - Form Perception
Q - Clerical Perception
K - Motor Coordination
F - Finger Dexterity
M - Manual Dexterity

Approximately two and one-quarter hours are required to minister the GATB. The test sections contain more items than can dinarily be completed in the time allowed.

The GATB is administered to individuals who have not yet een a field of work or who are uncertain as to the wisdom of r choice. It is felt that when vocational choice is involved, xploration of aptitudes will be of assistance to individuals in rocess of making a vocational decision.

The GATB offers the following advantages:

It groups jobs into families according to their aptitudinal

requirements, thereby lightening the counselor's task of determining the occupational significance of the counselee's test scores. Only those aptitudes required for successful performance in the jobs covered by the Occupation Aptitude Pattern are included in the norms. Thus it is not necessary to show profiles for the various occupations on all the aptitudes in the battery. GATB norms include only the significant abilities that are required by the occupation.[1] GATB norms involve the use of the multiple cut-off method, with a minimum or critical score on each significant aptitude. This is an important advantage since a deficiency of a particular aptitude cannot be compensated for by a super-abundance of another.

The GATB manual reports two types of reliability measures:

1. Stability -- correlation between test and retest scores, with an intervening period of time between testing and retesting.

2. Equivalence -- correlation between scores on two forms of the same test, administered essentially at the same time.

Three studies of local employment service applicants, a total N of 1200, report coefficients of stability ranging from .74 to .96 with an average median stability of .89. Two studies of high school and college students, a total N of 997, report coefficients of equivalence ranging from .69 to .88. The average median equivalence for these two studies was .83.

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[1]Table B-1 in the Appendix, Established Minimum Michigan Employment Security Commission Selection Criteria for Sample Programs, illustrates how local employment security commission offices utilize national and local information in establishing selection criteria for particular programs.

The GATB manual points out that in the test development studies conducted by the United States Employment Service the data gathered yielded measures of either predictive validity or concurrent validity. These types of validity have been defined as:

> Predictive validity is evaluated by showing how well predictions made from the test are confirmed by evidence gathered at some subsequent time. The most common means of checking predictive validity is correlating test scores with a subsequent criterion measure....Concurrent validity is evaluated by showing how well test scores correspond to measures of concurrent criterion performance or status.[1]

The type of criterion used by the USES may be supervisory ratings, instructor ratings, production records, school grades, or work samples.

Different parts of the GATB have different validity coefficients for various occupations or groups of occupations. This is to be expected because the GATB measures nine different aptitudes which are required in various combinations and to different degrees for various occupations or groups of occupations. When an experimental study with the GATB is conducted for a particular occupation, the objective of the study is to determine the best combination of aptitudes and minimum scores to be used as GATB norms for that occupation. This means that the USES determines which GATB norms have the highest validity for that occupation. An examination of validity tables in the manual indicates that GATB norms established

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[1]Technical Recommendations for Psychological Tests and Diagnostic Techniques (Washington, D.C.: American Psychological Association, 1954), p. 13-14.

for a specific occupation would usually have a correlation of .50 or above with the criterion of job performance for that occupation. This validity coefficient, usually determined by the tetrachoric correlation technique, expresses a relationship between the combination of aptitudes and minimum scores and success in the occupation and is generally higher than the correlation between any one aptitude and the criterion.

Andrew Comrey, reviewing the GATB in the Fifth Mental Measurements Yearbook, writes the following concerning the validity of the instrument:

> Unfortunately, the reporting of validity studies is not complete, being confined to tabular summarization of validity coefficients and a few other data. Studies are carried out by local office personnel under conditions which probably fail to meet scientific standards in many instances. Tetrachoric coefficients are used with small samples, in spite of the large sampling error. It seems safe to conclude, however, that validation has reached the point where these tests can definitely be said to have considerable value in many work situations. The amount of information now available is only a a fraction of what is needed; nevertheless it is extensive in comparison with what is available for other tests.[1]

Security-Insecurity Inventory[2]

Maslow and others reported the construction of this inventory

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[1]Oskar K. Buros (ed.), Fifth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1953), pp. 608-09.

[2]A. H. Maslow, Manual for the Security-Insecurity Inventory (Stanford, California: Stanford University Press, 1952).

in 1945.[1] It came to be constructed as a by-product of clinical and theoretical research with the concept of psychological or emotional security. The purpose of the inventory is to reveal an individual's inner conscious feelings regarding security-insecurity. Maslow states in the manual that security is one of the most important determinants of mental health, almost to the point of being synonymous with it.

The inventory consists of 75 questions divided into three groups of 25 each, making three equivalent and interchangeable forms of the test. Each of the three subtests has the same design and Maslow states that they are in essence separate tests and since each of the subtests correlates with the total score over .90, each may be considered a valid test of security. The subtest consisting of Items 26-50 was the measure of security used in this study.

Maslow makes no claim for the validation of the S-I test with an external criterion. He does state that the steps taken in the construction of the test seemed sufficient since only those questions which had been clinically validated in advance were selected for use. It appears that since the inventory was constructed by selecting questions that identify security-insecurity factors observed clinically and since individuals coming to the clinic for psychotherapeutic help or advice usually had insecure scores when tested

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[1] A. H. Maslow, E. Birsh, M. Stein, and I. Honigmann. "A Clinically Derived Test for Measuring Psychological Security-Insecurity," Journal of General Psychology, XXXIII (1945) 21-41.

that the test possesses face validity, factorial validity and empirical (status) validity as described by Anastasi.[1] While scant validity coefficients are presented in the manual, the inventory is considered adequately valid for the purposes of this study.

Because the S-I Inventory measures a trait which is not perfectly constant but is known to respond to some mood of the individual or to external events, Maslow considered the technique of determining reliability by internal consistency to be more appropriate than the repeat technique. The reliability figure obtained on split-halves arranged in the usual odd-even method was .86. Maslow felt that because the test was designed to accomodate fourteen subsyndromes, a split-half method that would allow the sort out of pairs would actually be more suitable for the determination of reliability. This method presented a reliability figure of .91. For so short a test Maslow noted that this is unusually high and in itself testifies to the validity of the clinical mode of test construction.

The complete 75-item test correlates quite highly with three other measures as follows:

Thurstone Neurotic Inventory (self-esteem)	.68
Bernreuter Neurotic Inventory	.58
Allport A-S (ascendance-submission)	.53

Maslow reports that the scores in the S-I Inventory do not

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[1]Anne Anastasi, Psychological Testing (New York: The MacMillan Company, 1954), pp. 120-51.

distribute normally but instead are skewed toward the secure end of the continuum. He advises that this must be taken into account in all statistical manipulation of S-I data. This is clearly indicated by the test having a mean of 19.5 and a median of 17.5 with a range of 0 to 69.

Maslow's advice has been heeded in this study and the scores that he indicated for the entire inventory as being secure, average or insecure have been proportioned for the selected subtest with the resulting allocation:[1]

Scores	Security
0 - 3	High
4 - 8	Medium
9 or more	Low

California Psychological Inventory[2]

Harrison G. Gough developed the CPI with a concern for the identification of characteristics of personality which have a wide pervasive applicability to human behavior and which are related to the favorable and positive aspects of personality rather than to the morbid and pathological. He also had as a goal the identification and measurement of the variables he included in his inventory.

As the CPI was intended primarily for use with normal subjects and its scales are addressed principally to personality characteristics important for social interaction and social living, it was deemed

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[1]Since this study employed only 25 items, one-third of Maslow's total inventory, the statistics provided for the total inventory were reduced appropriately.

[2]Harrison G. Gough, California Psychological Inventory Manual (Palo Alto, California: Consulting Psychologists Press, Inc., 1957).

appropriate for use in this study. The subjects of this study were mainly socially-functioning individuals.

The four scales (156 items) of the CPI selected for administration to aid in gathering socio-psychological data are listed below with a brief description of their purposes.

A description of the CPI Flexibility scale and data pertaining to it are also presented. Harrison G. Gough is the creator of both scales. Rokeach[1] has noted that the Gough-Sandord Rigidity Scale is now the Flexibility (Fx) Scale of the CPI and the items are now scored in opposite fashion.[2] A request to the publishers of both scales for validity, reliability and normative data brought the reply that data on the Flexibility Scale was applicable to both scales.[3]

Sociability - Identifies individuals of outgoing, sociable, participative temperament.

Self-Acceptance - Assesses such factors as the individual's sense of personal worth, self-acceptance, and his capacity for independent thinking and action.

Sense of Well-Being - Identifies individuals who minimize their worries and complaints, and who are relatively free from self-doubt and feelings of disallusionment.

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[1]Rokeach, loc. cit.

[2]An examination of the items of the Gough-Sanford Rigidity Scale and the Flexibility Scale of the CPI shows that the construction of the items is designed to measure flexibility-inflexibility. However, the items are not the same. Both scales are reproduced in the appendices; Gough-Sanford Rigidity Scale in Appendix E, p. 232. The Flexibility Scale in Appendix F, p. 239.

[3]Personal correspondence with Consulting Psychologists Press, Inc., op. cit.

Responsibility - Identifies conscientious, responsible individuals who evidence dependable disposition and temperament.

Flexibility - Indicates the degree of adaptability and flexibility of an individual's social behavior and thinking. (Rigidity indicates the degree of unadaptability and inflexibility).

The manual cites two reliability studies using the test-retest method. In one study, 200 male prisoners took the test twice with a lapse of from seven to twenty-one days between testing. In the other study, two high school Junior classes took the CPI in the fall of 1952 and again a year later as Seniors. The test-retest correlations for the selected scales are shown below:

Scale	Prisoners N=200	High School Males N=101	High School Females N=125
Reliability	.85	.65	.73
Sociability	.84	.68	.71
Self-Acceptance	.71	.67	.71
Well-Being	.85	.65	.73
Flexibility	.49	.60	.67

Gough concluded from these results that, in general, the constancy of measurement is high enough to permit the use of the scales in both group and individual testing.

While Gough admits the difficulty of summarizing the validity of his scale, he does present much validity data. Briefly, validity information on the scales selected for use in this study follows:

SUBJECTS	CRITERION	CORRELATION
	SOCIABILITY	
High School Males (104)	Principals' judgment	$r_{bis} = .49$
High School Females (102)	Principals' judgment	$r_{bis} = .81$

SUBJECTS	CRITERION	CORRELATION
	SELF-ACCEPTANCE	
Medical School applicants (70)	Staff's rating	$r_{bis} = .32$
High School Males (104)	Principals' rating	$r_{bis} = .46$
High School Females (102)	Principals' rating	$r_{bis} = .39$
	WELL-BEING	
Military Officers (100)	Staff's rating	$r_{bis} = .26$
Military Officers (100)	Own rating	$r_{bis} = .27$
	RESPONSIBILITY	
Graduate Students (40)	Staff's rating	$r_{bis} = .38$
Medical School Seniors (40)	Staff's rating	$r_{bis} = .38$
High School Males (103)	Principals' rating	$r_{bis} = .83$
High School Females (102)	Principals' rating	$r_{bis} = .78$
	FLEXIBILITY	
Graduate Students (40)	Staff's rating	$r_{bis} = .48$
Medical School Seniors (40)	Staff's rating	$r_{bis} = .36$
College Class (180)	California F scale (authoritarian personality)	$r_{bis} = .58$

The recognition that the socio-psychological inventory selected for use in this study would not always be administered under ideal testing conditions was also a strong determinant in the selection of the CPI scales. Gough notes that the inventory has been tried under nearly every conceivable condition and satisfactory results were obtained under every condition.

Following the lead of Bournazos[1] who categorized rigidity scores in three categories for analysis in his study of the effects of vocational training and after personal consultation with Dr. Milton

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[1]Bournazos, loc. cit.

Rokeach, whose study of rigidity and dogmatism is authoritative, it was determined that the scores of subjects obtained on the four CPI scales and the Gough-Sanford Rigidity Scale would be assigned to High, Medium, and Low categories for comparative purposes.

The three categories, High, Medium and Low were established after an examination of the raw score means and standard deviations presented in the manual for the CPI for normative groups that most nearly approximated the subjects of this study.

A preliminary analysis of scale data for three of the programs in this study indicated that the categories established through examination of CPI data would be suitable for differentiating the subjects of this study. The categorical limits were set so that approximately one-third of the subjects should be located in each of the categories. The categories are:

		CATEGORIES		
Scale	No. of items	High	Medium	Low
Sociability	36	28 & over	23-27	22 & below
Self-acceptance	34	22 & over	18-21	17 & below
Well-being	44	40 & over	36-39	35 & below
Responsibility	42	34 & over	29-33	28 & below
Rigidity	22	15 & over	11-14	10 & below

Instructor Evaluation Form

The Instructor Evaluation Interview form was designed principally to obtain the instructor's rating of the trainee. However, it served several other purposes. For subjects that dropped out of training, instructors provided information as to the date the subject left training, the number of weeks of training that were completed and the reason for the subject leaving training if it was known.

Instructors were asked to supply information concerning the
ne and location of employers for whom their trainees were working if
ey had such information. This information was added to the card file
each subject and proved invaluable in obtaining the post-training
ree-month follow-up interview for both those who completed training
l those who dropped out. Throughout the period of post-training
terviewing, employers were extremely cooperative in encouraging the
inees who worked for them to grant the interview. Some employers,
rticularly the hospitals employing practical nurse trainees, even
owed the interview to be conducted during working hours at their
cilities.

An Instructor Evaluation Interview Form is reproduced in
pendix E.

Selecting the Sample

For his larger parent study, Dr. Sigmund Nosow selected for
alysis four standard metropolitan statistical areas out of the ten in
chigan. The sample programs and areas selected by Doctor Nosow were
ilized in this study.

In each of the areas selected there was at least one program
the types this study wished to investigate that offered a poten-
al pool of available trainees. In deciding to utilize the sample
lected for the Nosow project, due consideration was given to the
ne and distances involved in the conduct of a study of this nature.
erefore, the areas selected for consideration in this study were
se that were easily accessible.

It was the goal of the Nosow study to investigate the most frequently found types of programs nationwide as indicated by enrollments that were available at the time the study was underway. Therefore, it was decided to study the ten programs that outranked all others in in-school training in terms of enrollments if these programs were available. As it developed, the program types ranked eigth, General Office Clerk, and tenth, Cook, were not available for study. Eight of the top ten programs, however, were available in one or more of the labor market areas.

While in the parent study the selection of programs in each of the four sampled communites aimed at replication as often as possible, for this study, the availability of adequate controls was a crucial determinant in sampling. The distribution of the sample programs by labor market locations shown in Table 3-1 reflects some of the sampling problems.

The computer program that was offered in labor market A was specifically selected for study because of the differences between the selection criteria employed and the composition of the trainees entering the program compared to the other programs selected for study. An examination of Table B-1 in Appendix B quite clearly shows how computer trainee selection criteria differed from selection criteria for other program types.

The only program available for study in labor market B was Machine Operator, General. This program type was also in labor market A. While this present study did not hold the replication of programs in different labor market locations to be crucial as

did the parent Nosow study, it was, in general, felt to be of value to have two similar programs in two different labor market areas; thus, specific labor market differences that might affect the outcomes of training might be observed. As it happened, two similar practical nurse programs in areas A and D were selected, also.

Because this study was designed to study particular types of programs, the basic sample selection was purposive. Because of the employment of more or less standard selection criteria and the requisite of underemployment or unemployment status before an individual is considered for training, it is extremely probable that trainees entering the programs selected for study will closely approximate individuals entering similar programs elsewhere.

As the method through which the data for this study was to be gathered, the personal interview, involved considerable expenditure in terms of time, distances and money, a decision to limit the study to thirteen programs was made. The thirteen programs selected in the four labor market locations are presented in Table 3-1,

TABLE 3-1 Sample Programs by Labor Market Locations

Labor Market Location	Program
A	Computer
	Clerk-Steno
	Welding
	Machine Operator, General
	Practical Nurse
B	Machine Operator, General
C	Clerk-Typist
	Nurse Aide-Orderly
D	Auto Mechanic
	Body Shop
	Automatic Screw Machine
	Practical Nurse
	Steno-Refresher

As the purpose of this study was to investigate changes in socio-psychological and socio-economic status that may come about as a result of adult vocational training and it appeared that there would be considerable variation between the outcomes of programs because of the nature of the programs themselves, the instruction given, the facilities available, the labor markets in which trainees would subsequently seek work, and other variables impossible to control from program to program, it seemed that the most appropriate type of sample to be selected for study was the fixed sample. Yates states that "accurate information on change can most easily be obtained by re-survey of a fixed sample of units."[1] The selection of specific training programs whose trainees would be studied before and after training followed Yates' suggestion.

Whereas Yates would have the fixed sample selected on a probability basis, one of the major purposes of the study negated this possibility. The comparison of the socio-psychological and socio-economic status of those entering training and subjects who were equally qualified to enter training and who expressed an interest in doing so but did not was a paramount part of the design. While it would have been extremely fortunate if all members of each training program could have been given consideration in this study, the actual trainees in the thirteen selected programs who were to be studied depended upon the availability of a paired control. This restriction on sample selection forced the adoption of a survey

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[1]Frank Yates, Sampling Methods for Censuses and Surveys (New York: Hafner Publishing Company, 1960), p. 46.

research technique described by Chapin[1] as a projected experimental design in a free community situation. With due regard for Yates' suggestion and recognizing the limitations in sample selection posed in a free-community research situation, described by Chapin, the design used in this study seemed most appropriate. This design will allow the quality of the programs and the labor markets in which trainees and their controls seek employment to be held constant and serve as an aid in the analysis of outcomes of training.[2]

All members of the thirteen selected programs were available for consideration and formed the trainee (experimental) pool. The names and personal data on each individual who had expressed an interest in entering one of the thirteen programs and who was qualified to enter a program but did not do so were made available by the Michigan Employment Security Commission in each of the labor market locations. These subjects formed the control pool.

Those experimental (trainees) and control pool subjects who could be matched on the following crucial personal variables formed a paired set:

labor market location
interest in same program
sex
ethnicity
age

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[1]F. Stuart Chapin, Experimental Designs in Sociological Research (New York: Harper & Brothers, 1947), p. 103.

[2]C. Y. Glock, "Some Applications of the Panel Method to the Study of Change," The Language of Social Research, P. F. Lazarsfeld and M. Rosenberg (eds.), (Glencoe, Illinois: The Free Press, 1957), p. 250.

education
marital status
General Aptitude Test Battery scores[1]

An attempt was made to match pairs as closely as possible on whether or not the subjects had dependent children and the number of dependent children. This was the last variable given consideration and was not considered crucial. Only approximate pairing was possible on this variable.

As a result of the restrictions in the selection of trainees to be studied imposed by the determination to pair the experimental and control subjects on crucial personal variables, 46.32 per cent of the trainees in the thirteen programs were included in the study. Table 3-2, Selection of Sub-Samples, page 89, columns one and two, shows the number and per cent of trainees in each of the programs that it was possible to pair. The table also shows the number of trainees and controls for whom pre-post training interviews and socio-psychological inventory scales are available.

An examination of the control pool data indicated two things. First, for some programs there were few subjects available for the control pool because such a large majority of those qualified to enter the program elected to do so. The Machine Operator, General, in labor market A particularly illustrates this. Second, while it

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[1]No GATB scales were administered by the MESC to any of the subjects in the Steno-Refresher program in Labor Market D. Subjects in other programs were paired if they did not differ by ten or more points on any scale in the battery. Table C-1, Appendix C, presents Trainee-Control Pairs Mean Inspection Data.

TABLE 3-2 Selection of sub-samples

PROGRAM	Total trainees in programs 1	Trainees paired in programs 2		Paired Trainees pre & post interviews 3		Paired Controls 3-mo period interview 4		Trainee-control pairs, 3mo interview 5		Paired trainees pre & post soc-psych scales 6		Paired Controls pre & post soc-psych scales 7		Trainee-control pairs, soc-psych scales 8	
	N	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	15	12	80.00	10	83.00	12	100.00	10	83.00	10	83.00	11	91.67	9	75.00
Practical Nurse A	21	9	42.86	9	100.00	9	100.00	9	100.00	9	100.00	9	100.00	9	100.00
Practical Nurse D	22	10	45.46	10	100.00	10	100.00	10	100.00	9	100.00	10	100.00	9	90.00
Machine Operator, General A	44	13	29.55	13	100.00	10	76.92	10	76.92	13	100.00	10	76.92	10	76.92
Machine Operator, General B	40	23	57.50	20	86.96	23	100.00	20	86.96	19	82.61	22	95.65	19	82.61
Body Shop	29	8	27.59	8	100.00	6	75.00	6	75.00	8	100.00	6	75.00	6	75.00
Auto Mechanic	27	11	40.74	9	81.82	11	100.00	9	81.82	9	81.82	11	100.00	9	81.82
Automatic Screw Machine	20	9	45.00	9	100.00	8	88.89	8	88.89	9	100.00	7	77.78	7	77.78
Welding	23	9	39.13	8	88.89	7	77.78	6	66.67	8	88.89	6	66.67	5	55.56
Clerk-Stenographer	26	13	50.00	13	100.00	13	100.00	13	100.00	13	100.00	13	100.00	13	100.00
Stenographer-Refresher	13	8	61.54	8	100.00	8	100.00	8	100.00	8	100.00	6	75.00	6	75.00
Clerk-Typist	23	17	73.91	17	100.00	16	94.12	17	94.12	17	100.00	16	94.12	16	94.12
Nurse Aide-Orderly	23	9	39.13	9	100.00	9	100.00	9	100.00	9	100.00	5	55.56	5	55.56
Totals	326	151	46.32	143	94.70	142	94.04	134	88.74	141	93.38	132	87.42	123	81.46

ppeared that there was a sufficiently large control pool available
or some programs, the attempt to pair trainees and controls indicated
hat differences in crucial personal variables decreased the pairings
ossible.

Admittedly the longer the list of variables controlled and the
ore rigorously they are applied, the smaller the sample and the
arther removed is the sample from randomness. Chapin, in writing
f an experimental study that bears on the present study states:

> Homogeneity, not representativeness, is the essential condition to the discovery by a single experiment of a real relationship between two factors. Consequently, if the present experiment shows that there is a relationship between . . . and. . . , this relationship is more likely to be a real one than is the case under conditions in which the social situation is complicated by several uncontrolled factors. Within certain limits (the limits of the given experiment), the homogeneity of the two subsamples is more important than their representativeness of variable factors that originally obscured the relationship.[1]

On the basis of the MESC data it appeared that it would be
ɔssible to pair 156 controls. However, after conducting personal
ıterviews with these possible controls, it was determined that five
f them would not meet the necessary control qualification require-
ents. Therefore, these five and the five trainees with whom they
ıd been tentatively paired, were dropped from consideration.

Thus, 302 subjects were obtained, 151 trainees and their 151
ıired controls and they became the subjects of this investigation.

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[1] Ibid., p. 103.

All 302 subjects were personally interviewed at the time the training programs they were entering or had been interested in were starting. However, over the period of time from the first interview to the post-training period interview--in some instances as long as eighteen months--some of the subjects moved and were impossible to locate or if located were at a distance so great as to render a personal interview impossible.

The cooperation of out-of-state employment security commission offices and personnel officers in the armed forces made it possible to obtain the final interview on five subjects who were located at great distances.

In a few cases, despite tactful and continued approaches the subjects refused to grant the final interview or refused to complete the socio-psychological inventory. An examination of the subjects on whom the post-training interview was not obtained indicates that there was no pattern formed by those for whom the interview was not available. Being a trainee or a control or having successfully completed a program or having dropped out seemed not to influence whether or not a post-training interview was obtained.

As the design of this study depended upon the comparison of the socio-psychological and socio-economic status of those entering training and their paired controls at the three-month period following the completion of training, the necessary complete data is available on sub-samples as is shown in Table 3-2, page 89 , in columns 3, 5, 6 and 8.

It must be recognized that the administrators of a social

program such as MDTA are not in a position to offer training to a randomly selected group and exclude from training another identical group to provide a theoretically sound experimental design. It would be impossible to favor one group (those randomly selected for training) at the expense of another (those randomly excluded from training) without tangible evidence of the greater eligibility on the part of those who are allowed to enter training. Once greater eligibility is established as the criterion for selection, randomness disappears and with it one of the essential conditions of an ideally theoretical experiment.

Chapin discusses this problem in social research:

> Until public administrators of social programs can see their way around this problem, it appears that the use of randomization as a method of control of unknown factors can be ruled out in experimental designs as a method of evaluating social programs in the community situation.[1]

To encourage research in the cases where random samples are seldom an available medium for social treatment in the free community situation, Chapin further states:

> Finally, interference with randomization due to practical consideration of an administrative nature does not by any means invalidate the use of experimental designs in the community situation because the results do hold for the groups studied and within the limits of the known controls.[2]

This study then has as one of its major purposes the comparison of trainees (experimental group) and the control group composed of

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[1] Ibid., p. 169.

[2] Ibid., p. 176.

subjects who are individually paired with subjects in the experimental group on crucial personal variables. As a result of the restrictions in the selection of trainees to be studied imposed by the determination to pair the experimental and control subjects on crucial personal variables, no attempt is made to claim probability selection and the statistical designs that are specifically applicable to such random properties will not be utilized.

Conducting the Interview

The pre-program interview was rather lengthy. The time taken for the structured personal interview and the administration of the socio-psychological inventory was always in excess of one hour, frequently taking longer than two hours.

The pre-program interviews with trainees were conducted at the MDTA training sites during the first or second week of the programs. This was considered the most feasible approach as it was deemed necessary to interview all members of the selected training programs. This method, allowed through the cooperation of MDTA staffs, was most beneficial to this research as a total of 326 trainees who were interviewed for the Nosow project were available for pairing in this study.

The pre-program interview with subjects in the control pool followed an initial telephone contact with them to set up the interview time. Generally these interviews were conducted in the interviewees' homes. As was described in the section on Selecting the Interview Sample, a total of 156 potential controls were interviewed.

The post-program interview was considerably shorter than the pre-program interview and, thus, the time for the interview and administration of the socio-psychological inventory averaged about an hour. The post-program interviews with both trainees and controls were usually conducted in the interviewees' homes. The post-program interview was scheduled by first sending a letter[1] notifying the subjects that they would soon be contacted and reminding them of the past contact. Telephone calls were made to establish the interview time.

It should be noted here that because of the composition of the population studied, extreme tact, skip-tracing techniques and tenacity were necessary to obtain the interviews. In the face of extremely adverse conditions it was felt that obtaining post-program interviews with 94.70 per cent of the trainees and 94.04 per cent of the controls was remarkable.[2]

The researcher personally conducted 129 interviews and other interviews utilized in this study were conducted by trained and experienced interviewers under the direction and supervision of Dr. Sigmund Nosow, Dr. Kim Bournazos and the researcher.[3]

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[1]See Appendix D, Letters of Contact.

[2]See Table 3-2, page 89 for percentages of sample interviewed.

[3]Although only interviewers who had interviewing training and experience were used, pre-interview training sessions were held. Interviewers were also accompanied on several of their first interviews to insure that they were capable and willing to follow the structured interview as directed.

Methodology

The data on all interviews and on all socio-psychological inventories were coded and verified and this coded data was marked on IBM sensitivity sheets and verified. The sensitivity sheets were then transferred into punched cards for use in Michigan State University's Control Data computer.

The data in this study were qualitative and non-parametric. The analysis procedure appropriate to this type of data is the Chi-square test. This statistic is used to test for significant differences among actual and theoretical frequencies as described in Walker and Lev.[1] The null hypothesis was rejected if the Chi-square was significant at the .05 level of confidence.

Inspection of the personal variable distributions by program led to the combining of several cells at the extreme ends of tables so that expected frequencies would be meaningful. In some cases, combining cells was impossible and Chi-squares could not be properly computed. However, if examination of the data brought forth findings pertinent and of interest, these findings were noted.

Hypotheses[2]

The three main research hypotheses will now be restated in null

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[1]Helen M. Walker and Joseph Lev. Statistical Inference (New York: Henry Holt and Company, 1953), pp. 81-108.

[2]See Table 3-3 for the sub-hypotheses employed to test the correlates and success of training criterion.

form:

1. There is no difference in socio-psychological and socio-economic status between trainees before they enter training and three months after the training programs they entered are completed as measured by the five correlates of socio-psychological and socio-economic status.

2. There is no difference in socio-psychological and socio-economic status between trainees and their matched controls three months after the training programs the trainees entered are completed as measured by the five correlates of socio-psychological and socio-economic status.

3. There is no difference in the socio-psychological and socio-economic status of trainees three months after the training programs they entered are completed as measured by three correlates of socio-psychological and socio-economic status (correlates "employment status" and "job satisfaction" are omitted from this test) between subjects having achieved different degrees of success of training.

Summary

The procedures, instrumentation and methodology employed to obtain and analyze the data were described in this chapter.

The data for this study were obtained from three sources: records made available by MESC officials in the four statistically significant metropolitan labor market locations; structured personal interviews which were concluded with the administration of the socio-psychological inventory selected for the study., and personal interviews with MDTA instructors.

A total of 326 pre-program interviews were held with trainees

TABLE 3-3 Sub-hypotheses and symbols

RELEVANT VARIABLES		CORRELATES OF SOCIO-PSYCHOLOGICAL AND SOCIO-ECONOMIC STATUS									
						Socio-psychological inventory					
		Employment status A	Job satisfaction B	Wage level C	Occupational status D	Responsibility E	Self-accept. F	Well-being G	Sociability H	Security Insecurity I	Rigidity J
Trainees-Pre & Post	1.	Ho-1A*	Ho-1B	Ho-1C	Ho-1D	Ho-1E	Ho-1F	Ho-1G	Ho-1H	Ho-1I	Ho-1J
Trainees-Controls at 3-month period following training	2.	Ho-2A	Ho-2B	Ho-2C	Ho-2D	Ho-2E	Ho-2F	Ho-2G	Ho-2H	Ho-2I	Ho-2J
Success of training (for those entering training)	3.			Ho-3C	Ho-3D	Ho-3E	Ho-3F	Ho-3G	Ho-3H	Ho-3I	Ho-3J

*For example, hypothesis 1A (Ho-1A) will test the employment status of those who entered training before training and three months after training programs have been completed.

and of this number 151 trainees were selected for consideration in this study. Of these 151 trainees, 143, 94.70 per cent, were interviewed three months after training programs were completed. Pre-program interviews were held with 156 potential controls selected on the basis of MESC data and of this number 151 were matched and selected for consideration in this study. Of these 151 controls, 142, 94.04 per cent, were interviewed at the three-month period. In all, a total of 767 personal interviews were held in order to select the subjects for this study and to gather data.

Data is available so that comparisons between the socio-psychological and socio-economic status before and after training for 143 trainees may be made. Data is available so that comparisons between the socio-psychological and socio-economic status of 134 trainee-control pairs may be made at the three-month period.

Socio-psychological inventory data is available that allows a comparison of the socio-psychological inventories of 141 trainees before and after training. Such socio-psychological data is also available for 123 trainee-control pairs at the three-month period.

Randomization of sample selection was not claimed due to the restrictions imposed by stringent pairing on the selected crucial personal variables and due, also, to the fact that administrators of social programs such as the MDTA can not randomly select and exclude individuals who express an interest in entering training.

The types of programs to be studied were essentially purposively selected so that programs that were nationally popular as indicated by enrollments would be given consideration in this study.

Several programs that were not particularly popular in terms of enrollment nationally were randomly selected and one program, computer, was intentionally selected so that programs of less popularity and vastly different on the basis of selection criteria and class composition could be comparatively studied.

The data in this study were qualitative and non-parametric and the statistical test employed was the Chi-square test.

CHAPTER IV

PRESENTATION OF FINDINGS

The time period that was established as critical for consideration in this study was the time three months after the training programs trainees entered were completed; this is true whether the comparison under consideration is that between trainees before they entered training and after training or between trainees and their matched controls after training.

Also considered at this same time period is the socio-psychological and socio-economic statuses of those who entered training and who achieved different degrees of success of training.

Although not stated hypotheses to be tested, it is evident that several other considerations are of interest to this study. Therefore, some attention must be given to the labor market participation of the matched controls during the interim between the first interview before training programs were begun and the last interview held three months after training programs the controls might have entered were completed.

Also held to be of interest is the weight of several selected personal variables in contributing to the outcomes of training for trainees identified by these variables. Therefore the socio-psychological and socio-economic statuses of white trainees and nonwhite trainees, of male trainees and female trainees, and of trainees who

completed training and trainees who dropped out of training will be investigated at the three-month period following the completion of training programs. The degree of success of training achieved by trainees identified by these personal variables will also be considered.

In order to facilitate the presentation of the findings, data will be presented in sections as follows:

I. Post-training status comparisons of trainees and controls

II. Pre-training and post-training status comparisons of those who entered training

III. Post-training status comparisons of those achieving different degrees of success of training

IV. Interim labor market participation of the controls

Sections I, II and III will present data on the tests of the three main research hypotheses which state that when measured by selected correlates of socio-psychological and socio-economic status, there will be no difference in socio-psychological and socio-economic status between trainees and controls after training, between trainees before and after training, and between trainees achieving different degrees of success of training. Table 4-1 summarizes and presents the chi-square values of the correlates of socio-psychological and socio-economic status for these three main research tests. The data tables from which the statistics were derived will be presented in the assigned sections as indicated. An examination of Table 4-1 might usefully preview the completed presentation of findings.

Table 4-1 Chi-Square Values of Correlates of Socio-Psychological and Socio-Economic Status and Relevant Variables

	Variables								
	Trainees-- Pre & Post			Trainees-- Controls at 3 month period			Success of Training		
	Symbol	X^2	df	Symbol	X^2	df	Symbol	X^2	df
Employment Status	Ho-1A	9.90[a]	4	Ho-2A	0.93	2			
Job Satisfaction	Ho-1B	18.18	16	Ho-2B	10.82*	4			
Wage Level	HO-1C	23.53	4	Ho-2C	9.40**	5	Ho-3C	36.48	6
Occupational Status	Ho-1D	73.83[a]	36	Ho-2D	26.16	6	Ho-3D	90.29[a]	18
Responsibility Status	Ho-1E	53.12	4	Ho-2E	0.16	2	Ho-3E	8.13	6
Self Acceptance Status	Ho-1F	55.65	4	Ho-2F	3.04	2	Ho-3F	9.28	6
Well Being Status	Ho-1G	79.35	4	Ho-2G	0.17	2	Ho-3G	6.88	6
Sociability Status	Ho-1H	61.65	4	Ho-2H	7.77*	2	Ho-3H	5.77	6
Security Status	Ho-1I	35.51	4	Ho-2I	0.62	2	Ho-3I	5.96	6
Rigidity Status	Ho-1J	44.70	4	Ho-2J	0.22	2	Ho-3J	8.71	6

Underscore -- Significant at .01

* -- Significant at .05

** -- Significant at .10

[a]2 or more cells under e of 5; test not utilized

I. Post-training status comparisons of trainees and controls

Employment Status

Ho-2A -- Not rejected.

Table 4-2 presents data on the employment statuses of trainees and matched controls at the three-month period. There is no difference in the employment statuses of trainees and controls. While there is a slightly higher percentage of trainees who are employed (2.99 per cent) and voluntarily unemployed (.75 per cent), and a slightly higher percentage of controls who are involuntarily unemployed (3.73 per cent), the differences are not significant.

TABLE 4-2 Employment status for trainees and matched controls after training

	Employed		Voluntary Unemployment		Involuntary Unemployment		Total	
	N	%	N	%	N	%	N	%
Trainees	110	82.09	11	8.21	13	9.70	134	100.00
Controls	106	79.10	10	7.46	18	13.43	134	100.0
Total	216	80.60	21	7.84	31	11.57	268	100.0

Job Satisfaction

Ho-2B -- Rejected

There is a difference in the amount of job satisfaction expressed by trainees and controls at the three-month period that is significant at the .05 level. Nearly half of the trainees (46.27 per cent) stated that their jobs offered them "very much" satisfaction; only 29.85 per cent of the controls were satisfied to that degree.

When the "very much" and "pretty much"[1] categories--the high range of the satisfaction continuum--are combined, trainees exceed controls in above-average expression of satisfaction by slightly more than 5 per cent. While the middle categories are nearly approximate for both groups, slightly more than 5 per cent of the controls expressed "no satisfaction" than did trainees. Clearly, trainees found their jobs more satisfying.

Wage Level

Ho-2C -- Not rejected.

It should be noted, however, that there is a difference in the wage levels of trainees and controls at the three-month period that is significant at the .10 level. An examination of Table 4-4 shows that more controls than trainees were earning less than $1.49 an hour, 38.81 per cent as compared to 30.60 per cent. It also shows that trainees exceeded controls in all other hourly pay categories except the highest, $3 or more an hour. That 15.67 per cent of the controls were earning $3 or more an hour compared to 9.70 per cent of the trainees earning this amount may be explained by several factors.

The availability of employment for those with and without training is attested to by the fact that there is no difference in the employment statuses of trainees and controls. (See Table 4-2). With employment available, the controls participated in the labor market during the time that their matched trainees were taking training. The

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[1]The description term "pretty much" and other similar terms were used in this study because they were meaningful and understandable for the subjects of the study.

TABLE 4-3 Trainee and control job satisfaction after training

	Very Much		Pretty Much		So-So		Not Much		None		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Trainee	62	46.27	14	10.45	23	17.16	4	2.99	31	23.13	134	100.00
Control	40	29.85	29	21.64	22	16.42	5	3.73	38	28.36	134	100.0
Total	102	38.06	43	16.04	45	16.79	9	3.36	69	25.75	268	100.0

***

TABLE 4-4 Trainee and control wage level after training

	99¢ or less		1.00-1.49		1.50-1.99		2.00-2.49		2.50-2.99		3.00 or more		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Trainee	27	20.15	14	10.45	33	24.63	24	17.91	23	17.16	13	9.70	134	100.00
Control	33	24.63	19	14.18	32	23.88	10	7.46	19	14.18	21	15.67	134	100.00
Total	60	22.39	33	12.31	65	24.25	34	12.69	42	15.67	34	12.69	268	100.00

length of participation varied for controls from program to program, but regardless of the variable length, controls had an opportunity to earn advancement during this participation. Even with training as an aid in obtaining jobs and advancing therein, successful trainees had only three months in the labor market in which to reach the hourly pay earnings that were compared to the earnings of their controls. With no significant difference between the earnings of controls who had longer periods of employment and trainees who had only three months of employment, it may be anticipated that the results of training in terms of earnings may best be appraised when the trainees have participated in the labor market for equal lengths of time.

Occupational Status

Ho-2D -- Rejected.

There is a difference between the occupational statuses of trainees and controls at the three-month period that is highly significant at the .01 level. Table 4-5 shows clearly that trainees far exceed controls at the professional (largely semi-professional) and managerial levels, 14.18 per cent to 2.99 per cent. It also may be seen that there is a higher percentage of trainees (14.93) in the skilled occupations than there are controls (5.97); and there are far fewer trainees (6.72 per cent) listed as unskilled than controls (20.15 per cent). Fewer trainees are in service occupations and fewer trainees are unemployed. In the last occupational category, not employed or employed at entry level job, only one control was at an entry level job. The remainder of the trainees and controls in this category were unemployed. The data in Table 4-5 presents evidence that

TABLE 4-5 Trainee and control occupational status after training

	Professional and Managerial[1]		Clerical and Sales		Service		Skilled		Semi-Skilled		Unskilled		Unemployed-entry level		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Trainee	19	14.18	31	23.13	5	3.73	20	14.93	26	19.40	9	6.72	24	17.91	134	100.00
Control	4	2.99	32	23.88	10	7.46	8	5.97	24	17.91	27	20.15	29	21.64	134	100.00
Total	23	8.58	63	23.51	15	5.60	28	10.45	50	18.66	36	13.43	53	19.78	268	100.00

[1] Practical Nurse trainees and Computer trainees who entered the occupations for which they trained are chiefly responsible for the number of trainee subjects found in this category in this study.

trainees obtained better occupational statuses than controls and would seem to validate the conclusion that given additional time in these positions trainees should achieve higher earnings at all levels than their matched controls.

Of importance at this point is the comparison of the socio-psychological statuses of trainees and controls at the three-month period. Before consideration can be given to this comparison, it is necessary to examine comparative data on the socio-psychological statuses of trainees and controls at the time of the pre-training interview. If it were found that there were significant differences in the socio-psychological statuses of trainees and controls before training, these pre-training differences would need to be weighed in evaluating post-training statuses.

Table 4-6 presents the chi-square values obtained from the administration of the socio-psychological scales to trainees and controls at the pre-training interview.

TABLE 4-6 Chi-Square values of the correlate of socio-psychological status for trainees and controls before training

Correlate scales	Trainees and Controls	
	X^2	df
Responsibility	1.39	2
Self Acceptance	1.30	2
Well Being	2.01	2
Sociability	2.53	2
Security	0.44	2
Rigidity	3.19	2

There was no difference between trainees and controls on any of the scales; therefore, there was no difference in the statuses of trainees and controls as measured by the correlate of socio-psychological status before training. This indicates that trainees and controls were matched not only on crucial personal characteristics that were social and economic in nature but psychological as well, at least in terms of the numbers of trainees and controls in each of the three categories, high, medium or low.

Tables 4-7a through 4-12b on the following pages present before training and after training socio-psychological scale data. Tables identified by the minor letter a will present pre-training data and tables identified by the minor letter b will present post-training data.

Socio-psychological Status

Ho-2E -- Not rejected.

Ho-2F -- Not rejected.

Ho-2G -- Not rejected.

Ho-2H -- Rejected.

Ho-2I -- Not rejected.

Ho-2J -- Not rejected.

As stated, there was no difference between trainees and controls on any of the six socio-psychological scales before training. Following training there was a significant difference on only one scale (.05 level), Sociability. An examination of Table 4-10b shows that trainees ranked higher on sociability with 32.52 per cent of the trainees and 24.39 per cent of the controls in the high category.

TABLE 4-7a Responsibility status before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	29	23.58	44	35.77	50	40.65	123	100.00
Controls	29	23.58	36	29.27	58	47.15	123	100.00
Total	58	23.58	80	32.52	108	43.90	246	100.00

***

TABLE 4-7b Responsibility status after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	29	23.58	47	38.21	47	38.21	123	100.00
Controls	30	24.39	49	39.84	44	35.77	123	100.00
Total	59	23.98	96	39.02	91	36.99	246	100.00

TABLE 4-8a Self-acceptance before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	35	28.46	53	43.09	35	28.46	123	100.00
Controls	36	29.27	45	36.59	42	34.15	123	100.00
Total	71	28.86	98	39.84	77	31.30	246	100.00

***

TABLE 4-8b Self-acceptance after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	47	38.21	50	40.65	26	21.14	123	100.00
Controls	41	33.33	44	35.77	38	30.89	123	100.00
Total	88	35.77	94	38.21	64	26.02	246	100.00

TABLE 4-9a Well-being status before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	43	34.96	49	39.84	31	25.20	123	100.00
Controls	37	30.08	45	36.59	41	33.33	123	100.00
Total	80	32.52	94	38.21	72	29.27	246	100.00

***

TABLE 4-9b Well-being status after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	44	35.77	44	35.77	35	28.46	123	100.00
Controls	45	36.59	41	33.33	37	30.08	123	100.00
Total	89	36.18	85	34.55	72	29.27	246	100.00

TABLE 4-10a Sociability before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	23	18.70	52	42.28	48	39.02	123	100.00
Controls	28	22.76	40	32.52	55	44.72	123	100.00
Total	51	20.73	92	37.40	103	41.87	246	100.00

***

TABLE 4-10b Sociability after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	40	32.52	49	39.84	34	27.64	123	100.00
Controls	30	24.39	38	30.89	55	44.72	123	100.00
Total	70	28.46	87	35.37	89	36.18	246	100.0

TABLE 4-11a Security before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	14	11.38	48	39.02	61	49.59	123	100.00
Controls	16	13.01	51	41.46	56	45.53	123	100.00
Total	30	12.20	99	40.24	117	47.56	246	100.00

****

TABLE 4-11b Security after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	18	14.63	60	48.76	45	36.59	123	100.00
Controls	17	13.82	55	44.72	51	41.46	123	100.00
Total	35	14.23	115	46.75	96	39.02	246	100.00

TABLE 4-12a Rigidity before training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	37	30.08	51	41.46	35	28.46	123	100.00
Controls	26	21.14	63	51.22	34	27.64	123	100.00
Total	63	25.61	114	46.34	69	28.05	246	100.00

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TABLE 4-12b Rigidity after training for those who entered training and matched controls

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	29	23.58	48	39.02	46	37.40	123	100.00
Controls	26	21.14	49	39.84	48	39.02	123	100.00
Total	55	22.36	97	39.43	94	38.21	246	100.00

There was also a higher percentage of trainees in the medium category, 39.84 per cent to 30.89 per cent. Nearly half, 44.72 per cent, of the controls were in the low category.

The purpose of the Sociability Scale is to identify persons of outgoing, sociable and participative temperament. Individuals with high scores tend to be seen as outgoing, enterprising, and ingenious; as being competitive and forward; as original and fluent in thought. Individuals with low scores tend to be seen as conventional, awkward, quiet, submissive and unassuming; as being detached and passive in attitude; and as being suggestibel and overly influenced by others' reactions and opinions.[1]

An examination of Tables 4-10a and 4-10b provides several interesting observations. Exactly the same number of controls were in the low category during both the pre-training and post-training interviews; whereas the number of trainees in the low category decreased significantly from 39.02 per cent to 27.64 per cent. On the other end of the continuum in the high category there was also little change in the number of controls; however, the percent of trainees in this category increased from 18.70 to 32.52. An examination of these tables indicates a movement on the part of trainees towards increasing sociability. This trend will be discussed further in this chapter in section II. Because of the possible intervention of unknown variables during the time of training and in the three months

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[1]Harrison G. Gough, California Psychological Inventory Manual (Palo Alto, California: Consulting Psychologists Press, Inc., 1957), p. 10.

following training, it is not possible to say that training alone brought about the increase in sociability. However, trainees are clearly identified as being significantly different in sociability statuses from their matched controls and the difference can be seen to be in the direction of greater sociability.

To this point, the socio-psychological and socio-economic statuses of all trainees who entered training and their matched controls for whom post-training information was available have been compared. In evaluating the effects of MDTA programs, it would seem necessary to make this comparison because training, of any type, to any degree of proficiency, attained through any duration of training, might be contributory. However, it must be recognized that all trainees who entered training did not complete the programs they entered. Post-training information gained in personal interviews with 143 of the 151 trainees in the sample show that 112 (78.3 per cent) trainees completed training. Complete data for 96 trainees who completed training and their matched controls is available; and complete data for 30 trainees who dropped out of training and their matched controls is available.

It would seem to be of interest to examine these two groups, those who successfully completed the programs and their controls and those who dropped out and their controls, to determine whether there is any difference between the trainee groups and the control groups as measured by the correlates of socio-psychological and socio-economic status at the three-month period.

Table 4-13 presents chi-square values of the correlates of socio-psychological and socio-economic status for trainees who completed or dropped out of training and their matched controls at the three-month period.

An examination of Table 4-13 clearly demonstrates one fact. There is no difference between those who dropped out of training and their matched controls on any of the socio-psychological or socio-economic correlates; there is a significant difference between those who completed training and their matched controls on four tests of status: job satisfaction, wage level, occupational status and sociability. These are the same four tests that were shown to be significant to some degree for all trainees who entered training and their matched controls (See Table 4-1). Therefore, it readily can be seen that the differences between all trainees and their controls can be attributed to differences between trainees who successfully completed training and their controls. This is a straightforward demonstration of the value to trainees of completing the programs entered.

Only the tables containing data that is significantly different will be presented here. Table 4-14 presents data on the job satisfaction of trainees and controls that is significant at the .05 level. Over half of the trainees who successfully completed training (52.08 per cent) expressed "very much" job satisfaction while less than a third (31.25 per cent) of their controls expressed job satisfaction of that degree. It can be seen, too, that a smaller percentage of trainees than controls had no satisfaction at

TABLE 4-13 Chi-square values of correlates of socio-psychological and socio-economic status for trainees who completed or dropped out of training and their matched controls at the three-month period

	Completes and Matched controls		Dropouts and matched controls	
	X^2	df	X^2	df
Employment Status	2.92	2	1.08	2
Job Satisfaction	9.57*	4	4.36	4
Wage Level	<u>10.28</u>	2	4.36	5
Occupational Status	<u>30.72</u>	6	6.13	6
Responsibility Status	0.09	2	1.71	2
Self Acceptance Status	2.92	2	1.77	2
Well Being Status	0.65	2	1.82	2
Sociability Status	6.83*	2	2.80	2
Security Status	0.11	2	1.14	2
Rigidity Status	0.09	2	0.90	2

Underscore -- Significant at .01

* -- Significant at .05

all, 18.75 per cent to 25.00 per cent. Three-months after the training programs they entered were completed, the trainees who successfully completed the training found their jobs more satisfying than did their matched controls.

An interesting comparison can be made between Table 4-14 on this page and Table 4-3. The percent of trainees who completed the course and expressed "very much" satisfaction with their three-month period jobs is somewhat higher than the percent of all trainees who entered training, 52.08 per cent compared to 46.27 per cent. Also, fewer trainees who completed training expressed "no satisfaction" than did all trainees who entered training, 18.75 per cent to 23.13 per cent. Trainees who successfully completed training were clearly more satisfied with their three-month period jobs.

TABLE 4-14 Job satisfaction of trainees who completed training and their matched controls at three-month period

	Very Much		Pretty Much		So-So		Not very Much		Not at all		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Trainees	50	52.08	10	10.42	16	16.67	2	2.08	18	18.75	96	100.00
Controls	30	31.25	19	19.79	19	19.79	4	4.17	24	25.00	96	100.00
Total	80	41.67	29	15.10	35	18.23	6	3.13	42	21.88	192	100.00

The cells in Table 4-15 were combined to meet the suggested chi-square criteria of Walker and Lev.[1] Therefore, this table is not

[1]Helen M. Walker and Joseph Lev. Statistical Inference (New York: Henry Holt and Company, 1953), p. 107.

directly comparable to Table 4-4 which presents data for all trainees. There was no need to combine cells in Table 4-4 and when they were combined no greater significance was found; therefore, to maximize wage data available, cells were not combined in Table 4-4.

In Table 4-15, there is a difference between the wage levels of successful trainees and their controls at the three-month period that is highly significant at the .01 level. It can be seen that a higher percentage of controls is in the lowest pay category, $1.49 an hour or less, 41.67 per cent compared to 28.12 per cent of the trainees. Controls were in a better earnings position in only the highest category, $2.50 or more an hour. In this category, controls exceeded successful trainees by slightly more than 5 per cent.

It is interesting to note in Table 4-4 that 26.86 per cent of all who entered training were earning $2.50 or more an hour while Table 4-15 shows that only 21.88 per cent of those who completed training were earning that amount. Since there was no difference in wages between those who dropped out of training and their controls and it has already been noted that controls might, in some instances, be earning a higher hourly rate because of their longer participation in the labor market, it can be postulated that it was those who dropped out of training and thus had a longer duration in the labor market who contributed to the higher percentage of trainees in Table 4-4 earning $2.50 an hour or more.

TABLE 4-15 Wage levels of trainees who completed training and their matched controls at three-month period

	$1.49 or less		$1.50-2.49		$2.50 or more		Total	
	N	%	N	%	N	%	N	%
Trainees	27	28.12	48	50.00	21	21.88	96	100.00
Controls	40	41.67	30	31.25	26	27.08	96	100.00
Total	67	34.90	78	40.63	47	24.47	192	100.00

Table 4-16 presents data on the occupational statuses of trainees who completed training and their controls. While there is a difference between these trainees and their controls that is highly significant at the .01 level, the same significant difference existed between all trainees who entered training and their controls. (See Table 4-5). However, there are several differences between these tables that merit comment. More of those who successfully completed training are in the managerial and professional category than were found for all who entered training, 18.75 per cent to 14.18 per cent. A higher percentage of those completing are in clerical and sales, 27.08 per cent to 23.13 per cent. Fewer successful trainees are unemployed or working at an entry level job, 13.54 per cent compared to 17.91 per cent for all trainees. Again this demonstrates that successful completion of training is rewarded by an increase in status.

Table 4-17 presents data on the sociability statuses of trainees who successfully completed training and their matched

TABLE 4-16 Occupational status of trainees who completed training and their matched controls at three-month period

	Professional Managerial		Clerical Sales		Service		Skilled		Semi-Skilled		Unskilled		Unemployed Entry level		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Trainees	18	18.75	26	27.08	3	3.13	13	13.54	19	19.79	4	4.17	13	13.54	96	100.00
Controls	2	2.08	23	23.96	9	9.38	6	6.25	15	15.63	18	18.75	23	23.96	96	100.00
Total	20	10.42	49	25.52	12	6.25	19	9.90	34	17.71	22	11.46	36	18.75	192	100.00

TABLE 4-17 Sociability status of trainees who completed training and their matched controls at three-month period

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Trainees	28	29.17	41	42.71	27	28.13	96	100.00
Controls	24	25.00	28	29.17	44	45.83	96	100.00
Total	52	27.08	69	35.94	71	36.98	192	100.00

controls. There is a significant difference at the .05 level between those completing training and their controls that is similar to the difference between all trainees who entered training and their controls that is shown in Table 4-10b. Clearly, those who entered training, whether they completed the programs they entered or not, ranked higher in sociability at the three-month period than their controls who elected not to enter training.

Section Summary

While there were no differences between the employment statuses of trainees and controls at the three-month period, there were significant differences in the job satisfactions and occupational statuses of trainees and controls. Trainees had greater job satisfaction at the three-month period and they held higher occupational statuses. There was a difference between the hourly wages of trainees and controls that was significant at the .10 level. Trainees were better paid in all hourly earnings categories except the highest. It is postulated that perhaps the reason more controls were in the highest earnings category was because of the longer time in which they participated in

the labor market, thus having greater opportunities for wage advancement. Only when trainees have participated for equal lengths of time will it be possible to truly evaluate the effects of MDTA programs on earnings.

Six scales comprised the correlate of socio-psychological status. A difference between trainees and controls was found on only one scale, Sociability. Trainees ranked significantly higher in sociability than did the controls.

When trainees who successfully completed training and those who did not were compared with their matched controls, it was seen that there were no significant differences between those who dropped out of training and their controls. Thus, the differences between all trainees who entered training and their controls can be attributed to differences between trainees who successfully completed training and their controls.

It seems evident that MDTA training is beneficial when trainees are compared with matched controls who elected not to enter training; when those who completed training and those who dropped out are compared with their controls, it also appears that it is the successful completion of training that brings the benefits, not the mere entrance into training.

II. Pre-training and post-training status comparisons of those who entered training

This section is concerned with the analysis of the data identifying the statuses of all those who entered training, before they entered training and after the training programs they entered had been

completed. The null hypothesis to be tested is:

There is no significant difference in socio-psychological status between trainees before they enter training and three months after the training programs they entered are completed as measured by the five correlates of socio-psychological and socio-economic status.

Employment Status

Ho-1A -- Not utilized.

The null hypothesis employed to test the data concerning the employment statuses of trainees before and after training could not be utilized because Table 4-18 contained two or more cells with an expected frequency of less than 5. An examination of Table 4-18 shows that while only 13.99 per cent of the trainees were employed (actually under-employed) prior to entering training, 82.52 per cent (118) were employed three months after training. Considerably more than half of those entering training, 59.44 per cent, were involuntarily unemployed before entering training, whereas only 9.09 per cent (13 trainees) were involuntarily unemployed following training. An important gain of individuals in needed work categories in the labor force is shown by the fact that only twelve individuals (8.39 per cent) elected to remain out of the labor force following training compared to the thirty-eight individuals (26.57 per cent) who were voluntarily out of the labor force before training. It can be seen that there would be a significant difference in the employment statuses of trainees before training and after training if cells of the table were combined. However, the cells could not be combined logically. Nevertheless, an examination of Table 4-18 demonstrates the improvement in employment

statuses of trainees following training.

TABLE 4-18 Employment status of those who entered training -- before and after training

Employment status after training	Employment status before training: Under Employment N	%	Voluntary Unemployment N	%	Involuntary Unemployment N	%	Total N	%
Employed	18	15.25	30	25.42	70	59.32	118	100.00
Voluntary Unemployment	1	8.33	7	58.33	4	33.33	12	100.00
Involuntary Unemployment	1	7.69	1	7.69	11	84.62	13	100.00
Total	20	13.99	38	26.57	85	59.44	143	100.00

Job Satisfaction

Ho-1B -- Not rejected.

There was no statistically significant difference between the amount of satisfaction trainees expressed concerning their last full-time jobs before entering training and the jobs they held at the three-month period. An examination of Table 4-19 shows, however, that a considerably greater number of trainees expressed "very much" satisfaction with the jobs they held after training than expressed this degree of satisfaction with the last full-time jobs held before training, 63 (44.06 per cent) as compared to 27 (18.88 per cent).

When the above-average expressions of satisfaction are combined, it can be seen that approximately the same percentage of trainees expressed this degree of job satisfaction before and after

training, 56.64 per cent before and 55.95 per cent after.

TABLE 4-19 Trainees' job satisfaction before and after training

After training	Before training: Very Much N	%	Pretty Well N	%	So-So N	%	Not very much N	%	Not at all N	%	Total N	%
Very much	12	19.05	24	38.10	15	23.81	5	7.94	7	11.11	63	100.00
Pretty well	2	11.76	5	29.41	4	23.53	5	29.41	1	5.88	17	100.00
So-So	6	23.08	12	46.15	3	11.54			5	19.23	26	100.00
Not very much			1	25.00	1	25.00	1	25.00	1	25.00	4	100.00
Not at all	7	21.21	12	36.36	6	18.18	2	6.06	6	18.18	33	100.00
Total	27	18.88	54	37.76	29	20.28	13	9.09	20	13.99	143	100.00

The interpretation of the "no satisfaction at all" category demands explanation. The twenty individuals (13.99 per cent) who expressed "no satisfaction" before training were actually making a judgment concerning the last full-time jobs they held, whether they were held a year or a week before the pre-training interview. However, because of the manner in which data concerning job satisfaction was tabulated from the post-training interview, twenty-five of the thirty-three trainees (23.08 per cent) who are reported as having "no job satisfaction" were actually unemployed at the three-month period. While it is true that the trainees were having no job satisfaction at the time, only eight of them were actually holding jobs they found unsatisfying.

Wage Level

Ho-1C -- Rejected.

There is a highly significant difference in the wage levels of trainees before and after training. Table 4-20 presents hourly wage data for the last full-time jobs held by trainees before they entered training and their jobs at the three-month period. Before training, 51.05 per cent of the trainees were earning less than $1.50 an hour. After training, 30.77 per cent (44) were earning less than $1.50 an hour. At the high end of the earnings scale, only 14.68 per cent of the trainees were earning $2.50 an hour or more before training; in their three-month period jobs, 28.67 per cent (41) were earning that amount. Certainly those who entered training were better off in terms of hourly earnings on their post-training jobs.

TABLE 4-20 Trainees' hourly wage level before and after training

	Before training							
After training	$1.49 or less		$1.50-2.49		$2.50 or more		Total	
	N	%	N	%	N	%	N	%
$1.49 or less	31	70.45	11	25.00	2	4.55	44	100.00
$1.50 - 2.49	33	56.90	18	31.03	7	12.07	58	100.00
$2.50 or more	9	21.95	20	48.78	12	29.27	41	100.00
Total	73	51.05	49	34.27	21	14.68	143	100.00

Occupational Status

Ho-1D -- Not utilized.

The null hypothesis employed to test the data concerning the occupational statuses of trainees before and after training could not be utilized because Table 4-21 contained two or more cells with an expected frequency of less than 5 and the logic of the test would not allow the combining of adjacent cells.

An examination of Table 4-21 is so meaningful in understanding the changes in occupational statuses that trainees made from their last full-time jobs before entering training to the statuses their three-month period jobs brought that the data in Table 4-21 will be briefly summarized.

Occupational status	Before training N	Before training %	After training N	After training %
Professional and managerial	1	0.70	19	13.29
Clerical and sales	38	26.57	32	22.38
Service	29	20.28	5	3.50
Skilled	2	1.40	24	16.78
Semiskilled	30	20.98	28	19.58
Unskilled	40	27.97	10	6.99
Never employed before or not employed after	3	2.10	25	17.48

Clearly seen is the great increase at the three-month period of those in the professional and managerial occupations and the skilled occupations. Just as clearly seen is the decrease of those who are unskilled and those who are in the service occupations. It is readily apparent that those who entered training have improved their occupational statuses.

TABLE 4-21 Occupational status of those who entered training -- before and after training

Occupational Status After Training	Occupational status before training													
	Professional and Managerial		Clerical and Sales		Service		Skilled		Semi-Skilled		Unskilled		Never Employed		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional and Managerial			6	31.58	7	36.84			3	15.79	3	15.79			19	100.00
Clerical and Sales	1	3.13	13	40.63	11	34.38			2	6.25	3	9.38	2	6.25	32	100.00
Service			2	40.00	3	60.00									5	100.00
Skilled			3	12.50			2	8.33	10	41.67	9	37.50			24	100.00
Semiskilled			4	14.29					9	32.14	15	53.57			28	100.00
Unskilled			2	20.00	1	10.00			2	20.00	5	50.00			10	100.00
Not employed at 3 month period			8	32.00	7	28.00			4	16.00	5	20.00	1	4.00	25	100.00
Total	1	0.70	38	26.57	29	20.28	2	1.40	30	20.98	40	27.97	3	2.10	143	100.00

Socio-psychological Status

Tables 4-22 through 4-27 on the following pages will present data testing the correlate of socio-psychological status, comprised of the six socio-psychological scales, of trainees before and after training.

Ho-1E -- Rejected.

Ho-1F -- Rejected.

Ho-1G -- Rejected.

Ho-1H -- Rejected.

Ho-1I -- Rejected.

Ho-1J -- Rejected.

There is a highly significant difference in the socio-psychological statuses of trainees before and after training as measured by each of the six socio-psychological scales. An examination of the marginal N's and percentages will show that changes in socio-psychological statuses did occur. On some scales the marginal changes are more modest than on others. An examination of the tables also shows that there was much status shifting by individual subjects as demonstrated by inter-cell movement. Such inter-cell movement could account for the high degree of significance of differences between trainees before and after training.

With the design of this study being as it is, dependent upon the categorization of subjects into three rather broad categories, it would be possible for a subject to change categories by a very slight change in a scale score. Thus, individual movement into an adjacent category may not be too meaningful. However, movement into a category beyond the adjacent one would indicate a sharp scale score

change that was caused by a change in the socio-psychological characteristic being measured or by the unreliability of the instrument. For the purposes of this study, the identification of the socio-psychological statuses of subjects through tri-categorization is held to be sufficient for evaluating the overall effects of MDTA programs. Examination of marginal N's and percentages offers adequate status data. Testing the reliability of the instruments utilized and determining the exact socio-psychological movement of each individual in such a study will be left for researchers whose chief interests are in these areas.

The responsibility statuses of trainees before and after training are presented in Table 4-22. The percentage of trainees in the high category before and after training is nearly approximate; but there was an increase in trainees in the medium category after training from 34.04 per cent to 37.59 per cent with a related decrease in the low category from 43.26 per cent before training to 39.01 per cent after training. Table 4-22 shows a tendency for those entering training to move toward greater responsibility statuses.

The self-acceptance statuses of trainees before training and at the three-month period following training are shown in Table 4-23. Trainees exhibited an increase in self-acceptance after training, with 37.59 per cent in the high category following training compared to 27.66 per cent before training. The medium category remained nearly the same after training, but the per cent in the low category decreased by about 8 per cent.

TABLE 4-22 Responsibility status of trainees before training and three months after training

Responsibility status before training	Responsibility status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	17	53.13	15	46.88			32	100.00
Medium	13	27.08	22	45.83	13	27.08	48	100.00
Low	3	4.92	16	26.23	42	68.85	61	100.00
Total	33	23.40	53	37.59	55	39.01	141	100.00

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TABLE 4-23 Self-Acceptance status of trainees before training and three months after training

Self-Acceptance status before training	Self-Acceptance status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	30	76.92	6	15.38	3	7.69	39	100.00
Medium	20	33.33	33	55.00	7	11.67	60	100.00
Low	3	7.14	19	45.24	20	47.62	42	100.00
Total	53	37.59	58	41.13	30	21.28	141	100.00

An examination of Table 4-24 offers interesting data on the well-being statuses of trainees. While there is a difference between the well-being statuses of trainees before and after training that is highly significant at the .01 level -- the same degree of significance as was found for all the trainee pre-post socio-psychological scales tests -- even an extremely careful examination of the table shows no trend of change. The evident changes presented in the table totals show a decrease of about 4 per cent in the medium category after training with the categories of high and low sharing in this middle-category decrease. The overall change in well-being appears to be slight.

TABLE 4-24 Well-Being status of trainees before training and three months after training

Well-Being status before training	Well-Being status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	31	67.39	14	30.43	1	2.17	46	100.00
Medium	16	28.07	30	52.63	11	19.30	57	100.00
Low	1	2.63	7	18.42	30	78.95	38	100.00
Total	48	34.04	51	36.17	42	29.79	141	100.00

Trainees were much higher in sociability following training. Table 4-25 shows this fact. Only 17.73 per cent of those entering training were high in sociability before training while 30.50 per cent were in this category following training. It can be seen that

while the per cent of trainees in the high category was increasing, the per cent of trainees in the low category was decreasing.

TABLE 4-25 Sociability status of trainees before training and three months after training

Sociability status before training	Sociability status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	21	84.00	3	12.00	1	4.00	25	100.00
Medium	19	31.67	30	50.00	11	18.33	60	100.00
Low	3	5.36	22	39.29	31	55.36	56	100.00
Total	43	30.50	55	39.01	43	30.50	141	100.00

Table 4-26 shows that the insecurity of trainees decreased considerably following training. Prior to training 51.77 per cent of those entering training were low in security statuses. Following training only 36.88 per cent were low in security. There was only a slight increase of about 2 per cent of trainees in the high category following training but a large increase in the medium category from 36.88 per cent to 49.65 per cent. While this does not indicate that trainees suddenly felt strongly secure as a result of MDTA programs, it does indicate that much insecurity is dispelled.

Because Rokeach[1] has concluded that rigidity leads to difficulties in thinking analytically and, thus, might interfere with the

[1]Milton Rokeach. The Open and Closed Mind (New York: Basic Books, 1960), p. 418.

TABLE 4-26 Security status of trainees before training and three months after training

Security status before training	Security status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	6	37.50	10	62.50			16	100.00
Medium	10	19.23	32	61.54	10	19.23	52	100.00
Low	3	4.11	28	38.36	42	57.53	73	100.00
Total	19	13.48	70	49.65	52	36.88	141	100.00

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TABLE 4-27 Rigidity status of trainees before training and three months after training

Rigidity status before training	Rigidity status after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
High	20	47.62	15	35.71	7	16.67	42	100.00
Medium	13	22.41	28	48.28	17	29.31	58	100.00
Low			10	24.39	31	75.61	41	100.00
Total	33	23.40	53	37.59	55	39.01	141	100.00

ability to learn, it is interesting to note the data presented in Table 4-27. There was a decrease in high rigidity from 29.79 per cent before training to 23.40 per cent after training. There was also a decrease in medium rigidity from 41.14 per cent to 37.59 per cent. These changes and the increase in low rigidity from 29.08 per cent to 39.01 per cent indicate a movement toward less rigidity -- greater flexibility -- following training. This finding raises a point of interest. While it has been noted that rigidity interferes with learning, is it possible that learning has the effect of reducing rigidity?

Regardless of whether the significant changes presented in the tables on the pre-training and post-training socio-psychological statuses of trainees were due to a definite movement of subjects in some particular direction or to inter-cell movement of subjects, finding that movement occurred is extremely interesting. It was stated in Chapter III that little research studying socio-psychological status changes of subjects had been undertaken. It was noted, too, that Roe stated: "Personality Development is also lifelong and while its main features seem clearly to be laid down very early, it too is not fixed in any rigid mold."[1]

The discovery of even some slight changes in socio-psychological statuses should lend encouragement to researchers to try other and more sophisticated statistical techniques and other kinds of measures.

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[1]Anne Roe, "Personality Structure and Occupational Behavior," in Henry Borrow (ed.), Man in a World at Work (Boston: Houghton Mifflin Company, 1964), p. 198.

In this section the socio-psychological and socio-economic statuses of all trainees who entered training have been compared at the pre-training and post-training periods. There are any number of crucial personal variables that could influence the effects MDTA programs might have on trainees. Three selected variables have been chosen for analysis. Table 4-28 presents the chi-square values of correlates of socio-psychological and socio-economic status for subjects identified by the selected variables of sex, race and program completion at the three-month period. An examination of Table 4-28 shows that at the three-month period following training the greatest differences as measured by the correlates are found between males and females.

Table 4-29 presents data on the employment statuses of males and females after training. There is a difference between the sexes that is significant at the .01 level. The table shows that a greater percentage of males (90.79) are employed than are females (73.13). It also shows that a much higher percentage of females are voluntarily unemployed. While only 2.63 per cent of the male trainees are voluntarily unemployed, 14.93 per cent of the females are voluntarily out of the labor market. When it is recognized that one of the prime purposes of MDTA was to supply workers for occupational areas in which serious shortages existed, such a high rate of voluntary unemployment must be a matter of concern to program planners.

In the labor market, actively seeking work, but unemployed, were 6.58 per cent of the male trainees and 11.94 per cent of the female trainees. These involuntary unemployment rates are somewhat higher than the unemployment rates at the same time for the sample labor

markets and Michigan cited in Table 1-1, Chapter I. Perhaps because these subjects were in training and were withdrawn from the labor market for a time, they had not yet oriented themselves in their labor market participation at the three-month period.

TABLE 4-28 Chi-square values or correlates of socio-psychological and socio-economic status and success of training[1] for those who entered training and identified by selected personal variables at the three-month period.

	Sex		Race		Complete or Drop	
	X^2	df	X^2	df	X^2	df
Employment Status	8.88	2	0.61	2	1.93	2
Job Satisfaction	33.83	4	3.93	2	3.81	4
Occupational Status	93.43[a]	6	8.81	6	13.49[a]	6
Wage Level	44.61	2	3.52	2	3.79	2
Responsibility Status	14.24	2	0.86	2	3.05	2
Self-Acceptance Status	5.04**	2	0.494	2	0.91	2
Well-Being Status	0.25	2	5.34**	2	1.29	2
Sociability Status	0.11	2	6.88*	2	2.11	2
Security Status	2.84	2	2.12	2	1.92	2
Rigidity Status	2.01	2	4.14	2	2.34	2
Success of Training[1]	9.76*	3	0.55	3	b	

[1]Data presented in Section III, Table 4-46.

Underscore -- Significant at .01

* -- Significant at .05

** -- Significant at .10

[a]2 or more cells under e of 5; test not utilized

[b]Completion of course integral part of Success of Training Scale

TABLE 4-29 Employment status of those who entered training after training by sex

	Employed		Voluntarily Unemployed		Involuntarily Unemployed		Total	
	N	%	N	%	N	%	N	%
Male	69	90.79	2	2.63	5	6.58	76	100.00
Female	49	73.13	10	14.93	8	11.94	67	100.00
Total	118	82.52	12	8.39	13	9.09	143	100.00

Data on the occupational statuses of males and females following training is presented in Table 4-30. It was not possible to test for significant differences because two cells had less than an expected frequency of 5, and it was not feasible to combine cells. An examination of the table shows that there are great differences in the occupational statuses of males and females and this is not unexpected. The types of programs selected for study would to a large extent determine the occupational statuses available to trainees. Only one occupational category provides findings that might not be anticipated. Two program types that were designed to provide training for managerial and professional occupations (largely semi-professional and technical) were included in this study, computer programming and practical nursing.

Table 4-30 shows that a much higher percentage of females than males are in managerial and professional occupations at the three-month period, 20.90 per cent to 6.58 per cent. It appears that the female practical nursing trainees were more successful than the male computer programming trainees in attaining the occupational statuses for which they were trained.

TABLE 4-30 Occupational status of those who entered training after training by sex

	Managerial and Professional		Clerical and Sales		Service		Skilled		Semi-Skilled		Unskilled		Not Employed		Total	
	N	%	N	%	N	%	N	%	N	%	N		N	%	N	%
Male	5	6.58	3	3.95	0	0.00	24	31.58	28	36.84	9	11.84	7	9.21	76	100.00
Female	14	20.90	29	43.28	5	7.46	0	0.00	0	0.00	1	1.49	18	26.87	67	100.00
Total	19	13.29	32	22.38	5	3.50	24	16.78	28	19.58	10	6.99	25	17.48	143	100.00

There was a highly significant difference (.01) in the wage levels of males and females after training. Table 4-31 shows that 51.31 per cent of the males were earning $2.50 an hour or more in their three-month period jobs while only 2.98 per cent of the females earned this much. Nearly half of the females, 49.25 per cent, were earning less than $1.50 an hour; 14.47 per cent of the males earned less than $1.50 an hour.

TABLE 4-31 Wage level of those who entered training after training by sex

	$1.49 or less		$1.50-2.49		$2.50 or more		Total	
	N	%	N	%	N	%	N	%
Male	11	14.47	26	34.21	39	51.31	76	100.00
Female	33	49.25	32	47.76	2	2.98	67	100.00
Total	44	30.76	58	40.55	41	28.67	143	100.00

Males were earning more following training but females were much happier in their post-training jobs. There was a highly significant difference in the degrees of job satisfaction expressed by males and females. Table 4-32 presents this data and an examination of the table clearly shows that a much higher percentage of females expressed "very much" satisfaction with their three-month period jobs; 62.69 per cent of the females expressing this degree of satisfaction and 27.63 per cent of the males rating their satisfaction that highly. It is important to note that while half (7) of the males reported as having no job satisfaction at the three-month period were unemployed, all but one female (18) reported as having no job satisfaction were unemployed.

Unemployment can certainly offer no job satisfaction but it is quite different from holding a job that is unsatisfying.

TABLE 4-32 Job satisfaction of those who entered training after training by sex

	Very Much		Pretty Well		So-so		Not very Much		Not at All		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Male	21	27.63	14	18.42	23	30.26	4	5.26	14	18.42	76	100.00
Female	42	62.69	3	4.48	3	4.48	0	0.00	19	28.36	67	100.00
Total	63	44.06	17	11.89	26	18.18	4	2.80	33	23.08	143	100.00

Following training, more than half of the males (52 per cent) were low in responsibility; 24.24 per cent of the females were in the low category. There was a highly significant difference in the responsibility statuses of males and females at the three-month period. Table 4-33 presents date on the responsibility statuses of trainees and demonstrates that females were definitely higher in responsibility.

TABLE 4-33 Responsibility Status of those who entered training after training by sex

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Male	10	13.33	26	34.67	39	52.00	75	100.00
Female	23	34.85	27	40.91	16	24.24	66	100.00
Total	33	23.40	53	37.59	55	39.01	141	100.00

The other socio-psychological scale on which there was a difference between males and females was self-acceptance, which was significant

at the .10 level. Table 4-34 presents self-acceptance data. It shows that while approximately the same per cents of males and females were in the medium category, a greater percentage of males were high in self acceptance, 44 per cent, compared to 30.30 per cent of the females in this category. At the three-month period, males were more self accepting than females.

There were no differences between males and females on any of the other four socio-psychological scales, well being, sociability, security and rigidity.

TABLE 4-34 Self-acceptance status of those who entered training after training by sex

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Male	33	44.00	31	41.33	11	14.67	75	100.00
Female	20	30.30	27	40.91	19	28.79	66	100.00
Total	53	37.59	58	41.13	30	21.28	141	100.00

An examination of the chi-square values of the correlates of socio-psychological and socio-economic status for whites and nonwhites presented in Table 4-28 shows that differences are found on only two socio-psychological scales. There are no other differences.

Table 4-35 presents data on the well-being statuses of whites and nonwhites on which they are significantly different at the .10 level. The table shows white trainees are higher in well being at the three-month period; 38.46 per cent of white trainees in the high category compared to 21.62 per cent of the nonwhites in this category.

Nonwhite trainees were higher in sociability statuses at the three-month period. Table 4-36 shows this significant difference. While there was a higher per cent of white trainees in the high category than there were nonwhites, 32.69 per cent to 24.32 per cent, there was a far higher percentage of whites in the low category. In the low category were 34.62 per cent of the white trainees and 18.92 per cent of the nonwhite trainees.

TABLE 4-35 Well being status for those who entered training after training by race

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
White	40	38.46	38	36.54	26	25.00	104	100.00
Nonwhite	8	21.62	13	35.14	16	43.24	37	100.00
Total	48	34.04	51	36.17	42	29.79	141	100.00

TABLE 4-36 Sociability status for those who entered training after training by race

	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
White	34	32.69	34	32.69	36	34.62	104	100.00
Nonwhite	9	24.32	21	56.76	7	18.92	37	100.00
Total	43	30.50	55	39.01	43	30.50	141	100.00

As stated in Section I, when all trainees who entered training were compared with their matched controls, differences between them were found on four of the correlates of socio-psychological and socio-economic status. When those who completed training and those who dropped out were compared with their controls, no differences were found between the dropouts and their controls; but those who completed training and their controls were significantly different on the same four correlates on which differences existed for all trainees and their controls. This indicated that the differences between those who completed training and their controls weighed heavily in the differences found when all trainees and controls were compared.

This finding would seem to indicate that there might be significant differences on the correlates between those who completed training and those who dropped out. However, an examination of Table 4-28 shows that only one chi-square value would be significant and this correlate, occupational status, could not be tested because there were two cells with an expected frequency of less than 5.

Table 4-37 shows that there is a definite difference between the occupational statuses of those who completed training and those who dropped out. No dropouts are in the managerial and professional category while 16.96 per cent of those who completed training are. There are higher percentages of the dropouts in the unskilled and unemployed categories. It is only in the skilled and semiskilled categories that a slightly greater percentage of dropouts is found.

Though there are no other significant differences in socio-psychological or socio-economic statuses between those completing training and those dropping, an examination of Table 4-37 seems to

TABLE 4-37 Occupational status for those who entered training **after training** by **course completion or not**

	Managerial and Professional		Clerical and Sales		Service		Skilled		Semi-Skilled		Unskilled		Not Employed		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Complete	19	16.96	28	25.00	4	3.57	18	16.07	21	18.75	5	4.46	17	15.18	112	100.00
Drop			4	12.90	1	3.23	6	19.35	7	22.58	5	16.13	8	25.81	31	100.00
Total	19	13.29	32	22.38	5	3.50	24	16.78	28	19.58	10	6.99	25	17.48	143	100.00

indicate the value of completing training. Again, the value of training and its effects on trainees will not be determined until those completing training have been competing in the labor market for the same lengths of time as controls and those who dropped out of training.

Section Summary

The socio-psychological and socio-economic statuses of those who entered training were considerably improved following training. When the statuses of trainees before training were compared with their statuses three months after training, their employment statuses were improved, they were earning more money, their occupational statuses were improved and there was a tendency for trainees to be more responsible, more self accepting, more sociable, more secure and less rigid. It is evident that trainees were enjoying an improvement in their statuses.

When the correlates of socio-psychological and socio-economic status were tested to determine if there were differences between male and female trainees at the three-month period, the following findings were made: a higher percentage of males were employed than were females; females voluntarily remained out of the labor force to a much larger degree than males did; there were the differences one would anticipate in the occupational statuses of males and females with the one exception that a much higher percentage of females were in the managerial and professional category; males earned more money per hour; females were much more satisfied with jobs they held at the three-month period; females were more responsible; and males were

more self accepting.

Testing the correlates to determine whether there were any differences between white and nonwhite trainees following training, differences were found on only two socio-psychological scales. There were no other significant differences. White trainees ranked higher in well being at the three-month period; but nonwhite trainees were higher on the sociability scale. It must be concluded that there was really little difference between white and nonwhite trainees following training.

There was only one difference between trainees who completed training and those who dropped out when the correlates were tested at the three-month period. No dropouts were found in the managerial and professional occupations while 16.96 per cent of those completing training were in this category. A higher percentage of dropouts were unemployed; and a much higher percentage of dropouts were unskilled. While this is the only evident difference between those completing training and those dropping out, the true test of the effects of MDTA programs and the completion of these programs can be made only when those completing training have participated in the labor market for equal lengths of time as controls and those who dropped out of training.

III. Post-training status comparisons of those achieving different degrees of success of training

The Manpower Development and Training Act was passed to alleviate unemployment and under-employment and to provide skilled workers for occupations in which shortages existed. Therefore, any evaluation of the effects of MDTA programs must take cognizance of whether or not training aided trainees in obtaining employment, particularly employment related to the training received. In addition, it would seem that the trainees' successful completion of courses undertaken and their placement in jobs that they feel are satisfying must be given consideration in any evaluation. Therefore, the design of the Success of Training Scale was based on these criteria for evaluating the success trainees achieved in their training programs and in the labor market following training. Table 1-2 in Chapter I graphically illustrates the success of training criteria employed and the relationship between the criteria and the degree of success continuum.

Because two of the correlates employed in this study are an integral part of the Success of Training Scale, the correlates employment status and job satisfaction were not tested. However, the other correlates were tested and Table 4-1 shows the chi-square values of the correlates and the success of training trainees achieved.

Wage Level

Ho-3C -- Rejected.

There was a highly significant difference (.01) in the hourly pay earned between trainees achieving different degrees of success. Table 4-38 presents this data. It is interesting to note upon examination of

the table that the percentage of trainees earning $2.50 or more an hour who were very successful was less than the percentages of trainees in other success categories who earned this amount. Earning $2.50 an hour or more were 63.64 per cent of the successful trainees, 35.29 per cent of the somewhat successful trainees, 28.30 per cent of the trainees who were not successful and only 20.97 per cent of the very successful trainees.

A far greater percentage of the trainees who were not successful earned less than $1.50 an hour than did trainees in any other success category; 52.83 per cent of the unsuccessful trainees earning this amount. While there were only eleven trainees in the successful category, they definitely are in the best earnings position; only 18.18 per cent earned less than $1.50, 18.18 per cent earned between $1.50 and $2.49 and, as noted above, 63.64 per cent earned $2.50 an hour or more.

TABLE 4-38 Success of training by wage level after training

	$1.49 or less		$1.50-2.49		$2.50 or more		Total	
	N	%	N	%	N	%	N	%
Very successful	10	16.13	39	62.90	13	20.97	62	100.00
Successful	2	18.18	2	18.18	7	63.64	11	100.00
Somewhat successful	4	23.53	7	41.18	6	35.29	17	100.00
Not successful	28	52.83	10	18.87	15	28.30	53	100.00
Total	44	30.77	58	40.56	41	28.67	143	100.00

The criteria for evaluating the success of training does not require a trainee to complete training to be eligible for consideration as successful. The trainee must obtain work related to the training received and must obtain the work because of the training. Additionally, the trainee must be satisfied with the three-month period job.

The fact that trainees who were very successful were not earning more than those who were successful may be because the successful trainees had greater lengths of participation in the labor market if they left training before completion or because of a whole host of other reasons. Again, it is recognized that the effects of MDTA programs on trainees identified by any variables will best be evaluated in the future when orientation in the labor market and participation therein have been attained and maintained.

Occupational Status

Ho-3D -- Not utilized.

The test to determine differences in occupational statuses between trainees achieving different degrees of success could not be utilized because two cells had an expected frequency of less than 5 and a combination of cells was not logical. Table 4-39 presents occupational status data for trainees achieving different degrees of success.

An examination of Table 4-39 shows that there are great differences in occupational statuses. No trainees who were successful or very successful were unskilled or unemployed. Sixteen of the nineteen trainees in the professional and managerial category were trainees who were very successful. The greatest percentage of trainees in clerical and sales occupations were those who were successful. Examining the occupational statuses of trainees who were classified as unsuccessful, it can be

TABLE 4-39 Success of training by occupational status after training

Degree of success	Professional and Managerial		Clerical and Sales		Service		Skilled		Semi-Skilled		Unskilled		Not employed or entry level		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Very successful	16	25.81	22	35.48	2	3.23	12	19.35	10	16.13	0	0.00	0	0.00	62	100.00
Successful	1	9.09	2	18.18	1	9.09	5	45.45	2	18.18	0	0.00	0	0.00	11	100.00
Somewhat successful	1	5.88	3	17.65	0	0.00	4	23.53	3	17.65	5	29.41	1	5.88	17	100.00
Not successful	1	1.89	5	9.43	2	3.77	3	5.66	13	24.53	5	9.43	24	45.28	53	100.00
Total	19	13.29	32	22.38	5	3.50	24	16.78	28	19.58	10	6.99	25	17.48	143	100.00

seen that 79.25 per cent of these trainees were unemployed, unskilled, or semiskilled. Of those trainees classified as somewhat successful, 52.94 per cent were unemployed, unskilled or semiskilled. While 16.13 per cent of the very successful trainees and 18.18 per cent of the successful trainees were in semiskilled occupations, the majority of the trainees in these two categories were working in occupations that demanded training. Obviously, the more successful the trainee, the greater his chances of being in an improved occupational status.

Socio-psychological Status

Tables 4-40 through 4-45 on the following pages present date on the socio-psychological statuses of trainees achieving different degrees of success. Table 4-1 shows that there are no significant differences found on any of the six socio-psychological scales between trainees classified as having achieved different degrees of success of training.

Ho-3E -- Not rejected.

Ho-3F -- Not rejected.

Ho-3G -- Not rejected.

Ho-3H -- Not rejected.

Ho-3I -- Not rejected.

Ho-3J -- Not rejected.

Because socio-psychological data was available for two less trainees than the number for whom other date was available, the socio-psychological tables will show one less trainee in both the successful and unsuccessful categories than was shown in Tables 4-38 and 4-39.

Table 4-40 presents data on the responsibility statuses of trainees. While there is no significant difference between trainees, it is

interesting to note several things. There is very little difference between the percentage of trainees in the low responsibility category except for those who were classified as successful; 60 per cent of those trainees were in the low category. Trainees classified as somewhat successful rated highest in responsibility; yet an equal percentage of the somewhat successful trainees (41.18 per cent) were in the low category.

TABLE 4-40 Success of training by responsibility status after training

Degree of success	Responsibility after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	15	24.19	24	38.71	23	37.10	62	100.00
Successful	2	20.00	2	20.00	6	60.00	10	100.00
Somewhat successful	7	41.18	3	17.65	7	41.18	17	100.00
Not successful	9	17.31	24	46.15	19	36.54	52	100.00
Total	33	23.40	53	37.59	55	39.01	141	100.00

Self-acceptance status data for trainees who achieved different degrees of success of training is presented in Table 4-41. While the unsuccessful trainees were lowest in self acceptance, with 25 per cent of them in the low category, a larger percentage of the unsuccessful trainees (40.38) were in the high category than the percentage of the very successful trainees (29.03). Trainees classified as successful were highest in self acceptance with 70 per cent in the high category.

TABLE 4-41 Success of training by self-acceptance status after training

Degree of success	Self-acceptance after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	18	29.03	32	51.61	12	19.35	62	100.00
Successful	7	70.00	1	10.00	2	20.00	10	100.00
Somewhat successful	7	41.18	7	41.18	3	17.65	17	100.00
Not successful	21	40.38	18	34.62	13	25.00	52	100.00
Total	53	37.59	58	41.13	30	21.28	141	100.00

Table 4-42 on the following page presents well-being status data. Lack of any pattern of socio-psychological status allocation is shown. When responsibility status was considered, the unsuccessful trainees were lowest. When self acceptance was tested, they ranked highest. Now, on well being, they again rank lowest. A greater percentage of trainees classified as somewhat successful are considerably higher in well-being status than trainees in other categories.

Table 4-43 shows that trainees classified as very successful are lowest in sociability. The unsuccessful trainees are highest in sociability. This directly inverse relationship between degree of success of training and sociability status is certainly worthy of further investigation.

TABLE 4-42 Success of training by well-being status after training

Degree of success	Well-being after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	20	32.26	25	40.32	17	27.42	62	100.00
Successful	3	30.00	1	10.00	6	60.00	10	100.00
Somewhat successful	8	47.06	5	29.41	4	23.53	17	100.00
Not successful	17	32.69	20	38.46	15	28.85	52	100.00
Total	48	34.04	51	36.17	42	29.79	141	100.00

TABLE 4-43 Success of training by sociability status after training

Degree of success	Sociability after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	14	22.58	26	41.94	22	35.48	62	100.00
Successful	3	30.00	5	50.00	2	20.00	10	100.00
Somewhat successful	5	29.41	8	47.06	4	23.53	17	100.00
Not successful	21	40.38	16	30.77	15	28.85	52	100.00
Total	43	30.50	55	39.01	43	30.50	141	100.00

It is incongruous to observe in Table 4-44 that half of the successful trainees were low in security. Only 17.65 per cent of the somewhat successful were in this category, and even the unsuccessful trainees had only 44.23 per cent who were low in security. Although the number of successful trainees is small (only 10), the question still arises as to why such a proportion should feel insecure. It would be interesting to investigate the security-insecurity feelings of the subjects further to determine whether the subjects see any correlation between the success of training criteria selected for this study and security-insecurity. Does not employment in a satisfying job bring greater security than being unemployed? What number of other factors influenced them to indicate the degrees of security they expressed?

TABLE 4-44 Success of training by security status after training

Degree of success	Security status							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	7	11.29	34	54.84	21	33.87	62	100.00
Successful	1	10.00	4	40.00	5	50.00	10	100.00
Somewhat successful	3	17.65	11	64.71	3	17.65	17	100.00
Not successful	8	15.38	21	40.38	23	44.23	52	100.00
Total	19	13.48	70	49.65	52	36.88	141	100.00

Table 4-45 presenting data on the rigidity statuses of trainees raises an interesting question also. Does high rigidity interfere with the ability to succeed in school and the labor market? It would seem so as the group with the lowest percentage of trainees in the low rigidity category was the unsuccessful group. Certainly the scope of this study does not allow that conclusion to be reached, but it invites further investigation of the question.

TABLE 4-45 Success of training by rigidity status after training

Degree of success	Rigidity after training							
	High		Medium		Low		Total	
	N	%	N	%	N	%	N	%
Very successful	11	17.74	21	33.87	30	48.39	62	100.00
Successful	3	30.00	4	40.00	3	30.00	10	100.00
Somewhat successful	3	17.65	5	29.41	9	52.94	17	100.00
Not successful	16	30.77	23	44.23	13	25.00	52	100.00
Total	33	23.40	53	37.59	55	39.01	141	100.00

The chi-square values for the degree of success of training achieved tested by the three selected personal variables of sex, race and course completion or drop were presented in Table 4-28. There were no significant differences between the degrees of success achieved and race or course completion. There was a difference between degree of success achieved and sex that was significant at the .05 level.

Table 4-46 shows that females were definitely more successful than males. While there was not a great difference in the percentage of males and females who were classified as unsuccessful, 39.47 per cent of the males and 34.33 per cent of the females, there was a great difference in the percentage who were classified as very successful. Females exceeded males in this category by about 17 per cent, 55.22 per cent compared to 32.89 per cent.

TABLE 4-46 Success of training by sex

	Very Successful		Successful		Somewhat Successful		Not Successful		Total	
	N	%	N	%	N	%	N	%	N	%
Male	25	32.89	8	10.53	13	17.11	30	39.47	76	100.
Female	37	55.22	3	4.48	4	5.97	23	34.33	67	100.
Total	62	43.36	11	7.69	17	11.89	53	37.06	143	100.

Section Summary

The degree of success of training scale was constructed in an attempt to evaluate the different degrees of success attained by those who entered training. It was based upon the criteria: course completion, instructor evaluation, employment status, relationship of work and training, influence of training in obtaining work, satisfaction with the work.

Because the correlates employment status and job satisfaction were an integral part of the scale, they were not tested against the scale. The other correlates were tested with the following results. There was a highly significant difference in the hourly pay earned by

trainees achieving different degrees of success; the most successful trainees did not receive the highest pay but fewer of them received the lowest pay.

There are great differences in the occupational statuses of trainees who achieved different degrees of success. No trainees who were successful or very successful were unskilled or unemployed. The more successful the trainee, the greater his chance of being in an improved occupational status.

There are no significant differences in the socio-psychological statuses of trainees achieving different degrees of success. No particular pattern of socio-psychological status allocation could be found. Several interesting questions regarding the relationship between the success of training and sociability, the success of training and security, and the success of training and rigidity were raised. The questions are suggestive of areas that merit further investigation.

When the degree of success of training scale was tested at the three-month period by trainees identified by the personal variables of sex, race and course completion or drop, only sex proved to be significant. Females definitely achieved greater degrees of success of training than males.

IV. Interim labor market participation of the controls

The critical pairing of trainees and controls resulted in the identification of two groups that were paired socially, psychologically and economically. The subjects in both groups were equally qualified to enter training but those in the control group elected not to do so.

Those who elected to enter training did so and either completed the programs they entered or left training. It is of interest to this study to examine what happened to the subjects who elected not to enter training during the period between the pre-training and post-training interviews. Since the two groups were paired, it could reasonably be postulated that had the trainees elected not to enter training their experiences in labor market participation might have been similar to the experiences of their paired controls.

Since the period of training of the thirteen sample programs varied from four weeks to fifty-two weeks, the between-interview time period varied also. Therefore, the only reasonable approach to an examination of the interim activity of the control groups is by program. (See Appendix A, Table 9, for the duration of training of the sample programs.)

Post-training interviews were secured for 142 of the 151 control subjects. In assessing the labor market participation of the controls it must be recalled that in order for an individual to be eligible for admission to a MDTA program, the individual must be either unemployed or under-employed. Therefore, it was not unusual to discover that many controls who were qualified to enter training were never actually unemployed or never went elsewhere than the MESC office in search of

job improvement. A visit to the MESC office is not considered an actual job search; also, unemployment of less than a week was not considered in the determination of the employment statuses of controls during the interim period. Table 4-47 presents unemployment data for controls during the interim period by program.

A total of 55 controls (38.73 per cent) were unemployed at some time during the period. Of those unemployed, twelve were voluntarily so; thus, 43 controls (30.28 per cent) were involuntarily unemployed while actively seeking work. Table 4-48 presents data on the amount of involuntary unemployment of the 130 controls who were actively participating in the labor market. While 66.92 per cent of the controls in the labor market were never unemployed, an examination of Table 4-48 shows that unemployment plagued some individuals. Twenty-eight subjects (21.16 per cent) had more than a month of unemployment during the period; sixteen of this number (12.31 per cent) had unemployment of three months or longer--and these were individuals actively seeking work.

Data on the controls for the six female and seven male programs are presented in Tables 4-47 and 4-48. Table 4-47 clearly shows that females were unemployed to a greater extent than males. All of those voluntarily unemployed were females; and while females constituted only 45.77 per cent (65) of the subjects on whom data is presented in Table 4-47, 53.49 per cent (23) of those involuntarily unemployed were females.

Table 4-48 shows that no female was unemployed longer than seven months; however, of the 21.16 per cent who were involuntarily unemployed for a month or longer, 57.14 per cent (16) were females. A further examination of Table 4-48 reveals that of the 53 females in the labor market during the interim, 43.40 per cent (23) were unemployed

TABLE 4-47 Type of unemployment of controls during interim

Program	None N	None %	Involuntary N	Involuntary %	Voluntary N	Voluntary %	Total N	Total %
Computer	12	100.00	0	0.00	0	0.00	12	100.00
Practical Nurse A	3	33.33	2	22.22	4	44.44	9	100.00
Machine Operator, General B	17	73.91	6	26.09	0	0.00	23	100.00
Body Shop	4	66.67	2	33.33	0	0.00	6	100.00
Auto Mechanic	7	63.64	4	36.36	0	0.00	11	100.00
Practical Nurse D	5	50.00	3	30.00	2	20.00	10	100.00
Automatic Screw Machine	5	62.50	3	37.50	0	0.00	8	100.00
Welding	6	85.71	1	14.29	0	0.00	7	100.00
Machine Operator, General A	6	60.00	4	40.00	0	0.00	10	100.00
Clerk-Stenographer	7	53.85	4	30.77	2	15.38	13	100.00
Stenographer-Refresher	5	62.50	2	25.00	1	12.50	8	100.00
Clerk-Typist	8	50.00	7	43.75	1	6.25	16	100.00
Nurse Aide-Orderly	2	22.22	5	55.56	2	22.22	9	100.00
Total	87	61.27	43	30.28	12	8.45	142	100.00

TABLE 4-48 Amount of involuntary unemployment of controls during interim

Program	None		1 week-less than 1 month		1 month-less than 3 months		3 months-less than 5 months		5 months-less than 7 months		7 months-less than 9 months		9 months-less than 12 months		12 or more		Total	
	N	%	N	%	N		N	%	N	%	N	%	N		N	%	N	%
Computer	12	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	12	100.00
Practical Nurse A	3	60.00	0	0.00	1	20.00	0	0.00	1	20.00	0	0.00	0	0.00	0	0.00	5	100.00
Machine Operator, General B	17	73.91	2	8.69	1	4.35	0	0.00	1	4.35	1	4.35	0	0.00	1	4.35	23	100.00
Body Shop	4	66.66	1	16.67	1	16.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	6	100.00
Auto Mechanic	7	63.64	2	18.18	0	0.00	1	9.09	0	0.00	1	9.09	0	0.00	0	0.00	11	100.00
Practical Nurse D	5	62.50	1	12.50	0	0.00	1	12.50	1	12.50	0	0.00	0	0.00	0	0.00	8	100.00
Automatic Screw Machine	5	62.50	1	12.50	0	0.00	1	12.50	1	12.50	0	0.00	0	0.00	0	0.00	8	100.00
Welding	6	85.71	0	0.00	1	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00
Machine Operator, General A	6	60.00	2	20.00	2	20.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	10	100.00
Clerk-Stenographer	7	63.64	2	18.18	1	9.09	1	9.09	0	0.00	0	0.00	0	0.00	0	0.00	11	100.00
Stenographer-Refresher	5	71.43	0	0.00	0	0.00	1	14.29	1	14.29	0	0.00	0	0.00	0	0.00	7	100.00
Clerk-Typist	8	53.33	2	13.33	4	26.67	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00	15	100.00
Nurse Aide-Orderly	2	28.57	2	28.57	1	14.29	2	28.57	0	0.00	0	0.00	0	0.00	0	0.00	7	100.00
Total	87	66.92	15	11.54	12	9.23	8	6.15	5	3.85	2	1.54	0	0.00	1	.77	130	100.00

for a week or more. Of the 77 males in the labor market during the interim, 25.97 per cent (20) were unemployed for a week or more.

Several interesting observations can be made from an examination of Table 4-47 and Table 9, Appendix A, length of training programs, and Table 1, Appendix B, program selection criteria. Since the length of time covered by the interim varied according to the length of the training programs, the controls for programs of greatest length had the most opportunity for unemployment because the period covered was longest. Conversely, the controls for the shortest programs had less time in which unemployment could occur. The Nurse Aide-Orderly program in labor market C was the shortest program, four weeks in length. Thus the interim was only four months long--from the beginning of the program until three months after completion. Only two controls for this program (22.22 per cent) had no unemployment during the period. Two were voluntarily unemployed and five (55.56 per cent) were involuntarily unemployed. This was the highest percent of involuntary unemployment found for any of the programs.

The selection requirement criteria established by the MESC clearly shows that the highest requirements were established for the Computer program in labor market A. The interim time for the Computer controls was 58 weeks; yet, none of the twelve controls was unemployed during the interim. These observations seem to indicate that unemployment is not so much tied to the length of time of participation in the labor market as to the capabilities of the individuals who are participating.

It was necessary for all individuals who were qualified by the MESC to enter MDTA programs to seek admittance to the programs at a MESC office. The primary purpose of the visit to the MESC office

could have been to seek such admittance or it could have been the desire of the individual to seek job improvement in some other way. In any case, the individuals who were qualified to enter programs were definitely seeking job changes. Therefore, it is of interest to note in Table 4-49 that nearly one-half of the controls (48.59 per cent) never sought any jobs elsewhere than at the MESC during the interim. However, the remaining 51.41 per cent (73) of the controls made a total of 163 job searches.

An examination of Table 4-49 shows that job searches were made by members of all programs. While only one welding control, who was involuntarily unemployed (see Table 4-47) sought work, twelve (75 per cent) clerk-typist controls made job searches. The reasons for these differences in the number of job searches could be many. Perhaps the welder controls were less dissatisfied with their present employment; perhaps they felt fewer opportunities existed for them and they preferred to stay where they were. Perhaps the welders were the chief support of a family and did not feel as mobile as the female clerk-typists who may not have been the chief support of a family. Consideration of the distribution of the sample programs by crucial personal variables (see Appendix A) offers many possible reasons for job search differences. However, no particular job search pattern emerges upon examination.

A further demonstration of the greater amount of unemployment of females during the interim is shown in Table 4-50. Of the sixteen controls who held no jobs during the interim, fifteen were females. Only one male, a control for the General Machine Operator program in labor market B, actively and unsuccessfully sought work throughout the

TABLE 4-49 Total job searches of controls during interim

TABLE 4-49 Total job searches of controls during interim

Program	Number of searches: None		1		2		3		4		5		6		7		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	7	58.33	4	33.33	0	0.00	0	0.00	0	0.00	1	8.33	0	0.00	0	0.00	12	100.
Practical Nurse A	5	55.56	2	22.22	1	11.11	1	11.11	0	0.00	0	0.00	0	0.00	0	0.00	9	100.
Machine Operator, General B	12	52.17	6	26.09	2	8.70	2	8.70	0	0.00	0	0.00	0	0.00	1	4.35	23	100.
Body Shop	2	33.33	2	33.33	0	0.00	1	16.67	0	0.00	0	0.00	1	16.67	0	0.00	6	100.
Auto Mechanic	7	63.64	1	9.09	1	9.09	1	9.09	0	0.00	0	0.00	0	0.00	1	9.09	11	100.
Practical Nurse D	4	40.00	3	30.00	1	10.00	1	10.00	0	0.00	0	0.00	1	10.00	0	0.00	10	100.
Automatic Screw Machine	3	37.50	1	12.50	1	12.50	2	25.00	0	0.00	1	12.50	0	0.00	0	0.00	8	100.
Welding	6	85.71	0	0.00	0	0.00	1	14.29	0	0.00	0	0.00	0	0.00	0	0.00	7	100.
Machine Operator, General A	5	50.00	2	20.00	1	10.00	1	10.00	0	0.00	0	0.00	1	10.00	0	0.00	10	100.
Clerk-Stenographer	5	38.46	7	53.85	1	7.69	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	13	100.
Stenographer-Refresher	4	50.00	1	12.50	1	12.50	2	25.00	0	0.00	0	0.00	0	0.00	0	0.00	8	100.
Clerk-Typist	4	25.00	5	31.25	2	12.50	4	25.00	0	0.00	0	0.00	0	0.00	1	6.25	16	100.
Nurse Aide-Orderly	5	55.56	1	11.11	0	0.00	2	22.22	0	0.00	1	11.11	0	0.00	0	0.00	9	100.
Total	69	48.59	35	24.65	11	7.75	18	12.68	0	0.00	3	2.11	3	2.11	3	2.11	142	100.

TABLE 4-50 Total jobs held by controls during interim

Program	Number of jobs: None		1		2		3		4		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Computer	0	0.00	11	91.67	1	8.33	0	0.00	0	0.00	12	100.00
Practical Nurse A	3	33.33	2	22.22	2	22.22	2	22.22	0	0.00	9	100.00
Machine Operator, General B	1	4.35	16	69.57	4	17.39	2	8.70	0	0.00	23	100.00
Body Shop	0	0.00	4	66.67	2	33.33	0	0.00	0	0.00	6	100.00
Auto Mechanic	0	0.00	7	63.64	0	0.00	4	36.36	0	0.00	11	100.00
Practical Nurse D	2	20.00	4	40.00	1	10.00	1	10.00	2	20.00	10	100.00
Automatic Screw Machine	0	0.00	5	62.50	2	25.00	0	0.00	1	12.50	8	100.00
Welding	0	0.00	6	85.71	1	14.29	0	0.00	0	0.00	7	100.00
Machine Operator, General A	0	0.00	6	60.00	2	20.00	2	20.00	0	0.00	10	100.00
Clerk-Stenographer	1	7.69	7	53.85	4	30.77	1	7.69	0	0.00	13	100.00
Stenographer-Refresher	3	37.50	5	62.50	0	0.00	0	0.00	0	0.00	8	100.00
Clerk-Typist	2	12.50	8	50.00	5	31.25	1	6.25	0	0.00	16	100.00
Nurse Aide-Orderly	4	44.44	5	55.56	0	0.00	0	0.00	0	0.00	9	100.00
Total	16	11.27	86	60.56	24	16.00	13	9.15	3	2.11	142	100.00

interim. Four female controls, two for the Nurse Aide-Orderly program in labor market C and two for the Stenographer-Refresher program in labor market D, actively and unsuccessfully sought work throughout the interim.

Table 4-50 shows that the 126 subjects holding jobs at some time during the interim held a total of 185 jobs. Again the Computer controls give evidence of the best employment record with all of them being employed during the interim and only one of them holding two jobs, the remainder holding only one job. The number of jobs an individual holds during a particular period of time may be dependent upon a whole host of labor market variables such as labor market conditions, job satisfaction-dissatisfaction, job aspirations and mobility level as determined by freedom and opportunity to move and the capability of the individual.

Controls who were unemployed for any length of time during the interim were asked to state their source of support during the period of unemployment. Table 4-51 summarizes the responses concerning the first source of support during unemployment. In several instances responses were obtained from individuals who did not appear in other unemployment tables because their unemployment was less than a week. Also, several individuals chose not to respond to the question. Altogether, fifty subjects stated their first source of support; and of this number, twenty-one also indicated that they received support from a second source. Table 4-52 summarizes data for the second source of support.

Table 4-51 shows that 52 per cent of the subjects relied on their immediate families for their first source of support and Table 4-52

TABLE 4-51 First source of support for controls unemployed during interim

Program	Source of support									
	Immediate Family		Relatives and Friends		Savings		Federal or State Aid		Total	
	N	%	N	%	N	%	N	%	N	%
Computer	0	0.00	0	0.00	1	100.00	0	0.00	1	100.
Practical Nurse A	4	100.00	0	0.00	0	0.00	0	0.00	4	100.
Machine Operator, General B	2	33.33	1	16.67	1	16.67	2	33.33	6	100.
Body Shop	1	50.50	0	0.00	0	0.00	1	50.00	2	100.
Auto Mechanic	2	66.67	0	0.00	0	0.00	1	33.33	3	100.
Practical Nurse D	0	0.00	1	33.33	1	33.33	1	33.33	3	100.
Automatic Screw Machine	1	33.33	1	33.33	1	33.33	0	0.00	3	100.
Welding	0	0.00	0	0.00	0	0.00	1	100.00	1	100.
Machine Operator, General A	2	50.00	0	0.00	0	0.00	2	50.00	4	100.
Clerk-Stenographer	2	50.00	0	0.00	0	0.00	2	50.00	4	100.
Stenographer-Refresher	1	50.00	0	0.00	0	0.00	1	50.00	2	100.
Clerk-Typist	7	70.00	0	0.00	0	0.00	3	30.00	10	100.
Nurse Aide-Orderly	4	57.14	0	0.00	1	14.29	2	28.57	7	100.
Total	26	52.00	3	6.00	5	10.00	16	32.00	50	100.

Program	Source of support																	
	Immediate Family		Relatives and Friends		Borrow		Savings		Reduce Spending		Federal or State Aid		Alimony or Pension		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.
Practical Nurse A	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	0	0.00	1	100.
Machine Operator, General B	2	66.67	0	0.00	0	0.00	0	0.00	0	0.00	1	33.33	0	0.00	3	100.
Body Shop	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.
Auto Mechanic	1	50.00	0	0.00	0	0.00	0	0.00	0	0.00	1	50.00	0	0.00	2	100.
Automatic Screw Machine	1	33.33	1	33.33	0	0.00	0	0.00	0	0.00	1	33.33	0	0.00	3	100.
Welding	0	0.00	0	0.00	0	0.00	1	100.00	0	0.00	0	0.00	0	0.00	1	100.
Machine Operator, General A	1	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.
Clerk-Stenographer	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	1	100.
Stenographer-Refresher	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	100.00	0	100.
Clerk-Typist	1	25.00	1	25.00	0	0.00	0	0.00	1	25.00	1	25.00	0	0.00	4	100.
Nurse Aide-Orderly	0	0.00	0	0.00	1	50.00	0	0.00	1	50.00	0	0.00	0	0.00	2	100.
Total	7	33.33	3	14.29	1	4.76	1	4.76	3	14.29	4	19.05	2	9.52	21	100.

shows that 33.33 per cent of the subjects relied upon their immediate families for their second source of support. Second in position as a source of support was Federal or State Aid with 32 per cent listing this as their first source and 19.05 per cent listing this as their second source. The question was worded in such a way that the subject could interpret it as asking "How did you get along while unemployed?" That is why three subjects gave as their second way of getting along the reduction of spending. (See Table 4-52)

Controls were questioned regarding their earnings during the interim. Because of job changes of one type or another they were asked to state their highest and lowest hourly pay. A total of 127 complete and usable replies were received. Table 4-53 presents this data for the highest pay and Table 4-54 presents this data for the lowest pay.

Only one control, a control for the Nurse Aide-Orderly program in labor market C, earned less than a dollar an hour. (See Table 4-47) No female control made as much as three dollars an hour while 26 males made that much or more. (See Table 4-53) Controls for the welding program in labor market A received the highest hourly pay. An examination of Table 4-53 shows that 85.71 per cent of them received $2.50 or more an hour. Other high hourly pay programs in which subjects earned $2.50 or more an hour ranked as follows: Body Shop, 83.33 per cent; Auto Mechanic, 70 per cent; Automatic Screw Machine, 66.67 per cent; Computer, 66.66 per cent; General Machine Operator - B, 65.21 per cent; and General Machine Operator - A, 60 per cent.

The degrees of satisfaction controls stated that they felt about their jobs was presented in the section on trainee-control status comparisons. However, another question that is close to the heart of

Program	1.00-1.49 N	%	1.50-1.99 N	%	2.00-2.49 N	%	2.50-2.99 N	%	3.00 or more N	%	Total N	%
Computer	0	0.00	2	16.67	2	16.67	4	33.33	4	33.33	12	100.00
Practical Nurse A	4	57.14	3	42.86	0	0.00	0	0.00	0	0.00	7	100.00
Machine Operator, General B	2	8.70	3	13.04	3	13.04	7	30.43	8	34.78	23	100.00
Body Shop	0	0.00	1	16.67	0	0.00	3	50.00	2	33.33	6	100.00
Auto Mechanic	2	20.00	0	0.00	1	10.00	5	50.00	2	20.00	10	100.00
Practical Nurse D	2	25.00	2	25.00	3	37.50	1	12.50	0	0.00	8	100.00
Automatic Screw Machine	0	0.00	1	16.67	1	16.67	1	16.67	3	50.00	6	100.00
Welding	0	0.00	1	14.29	0	0.00	2	28.57	4	57.14	7	100.00
Machine Operator, General A	1	10.00	1	10.00	2	20.00	3	30.00	3	30.00	10	100.00
Clerk-Stenographer	3	25.00	8	66.67	1	8.33	0	0.00	0	0.00	12	100.00
Stenographer-Refresher	1	14.29	4	57.14	1	14.29	1	14.29	0	0.00	7	100.00
Clerk-Typist	9	64.29	4	28.57	1	7.14	0	0.00	0	0.00	14	100.00
Nurse Aide-Orderly	4	80.00	0	0.00	0	0.00	1	20.00	0	0.00	5	100.00
Total	28	22.05	30	23.62	15	11.81	28	22.05	26	20.47	127	100.00

TABLE 4-54 Lowest hourly pay controls received during interim

Program	99¢ or less		1.00-1.49		1.50-1.99		2.00-2.49		2.50-2.99		3.00 or more		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	0	0.00	0	0.00	2	16.67	2	16.67	4	33.33	4	33.33	12	100.00
Practical Nurse A	0	0.00	6	85.71	1	14.29	0	0.00	0	0.00	0	0.00	7	100.00
Machine Operator, General B	0	0.00	3	13.04	3	13.04	4	17.39	6	26.09	7	30.43	23	100.00
Body Shop	0	0.00	0	0.00	1	16.67	0	0.00	3	50.00	2	33.33	6	100.00
Auto Mechanic	0	0.00	3	30.00	0	0.00	1	10.00	4	40.00	2	20.00	10	100.00
Practical Nurse D	0	0.00	2	25.00	3	37.50	3	37.50	0	0.00	0	0.00	8	100.00
Automatic Screw Machine	0	0.00	0	0.00	2	33.33	0	0.00	1	16.67	3	50.00	6	100.00
Welding	0	0.00	0	0.00	1	14.29	1	14.29	2	28.57	3	42.86	7	100.00
Machine Operator, General A	0	0.00	1	10.00	1	10.00	3	30.00	3	30.00	2	20.00	10	100.00
Clerk-Stenographer	0	0.00	4	33.33	8	66.67	0	0.00	0	0.00	0	0.00	12	100.00
Stenographer-Refresher	0	0.00	2	28.57	3	42.86	1	14.29	1	14.29	0	0.00	7	100.00
Clerk-Typist	0	0.00	11	78.57	3	21.43	0	0.00	0	0.00	0	0.00	14	100.00
Nurse Aide-Orderly	1	20.00	3	60.00	0	0.00	0	0.00	1	20.00	0	0.00	5	100.00
Total	1	0.79	35	27.56	28	22.05	15	11.81	25	19.69	23	18.11	127	100.00

job satisfaction was asked controls. They were asked whether or not they would or would not look for a job (if unemployed) or another job in the near future. A total of 140 usable replies are presented in Table 4-55. Exactly an equal number stated that they would and would not look for a job--another job in the near future. However, when Table 4-55 is examined, it is interesting to note the differences in desire to look for a job--another job among the controls for the various programs. The greatest expression of a desire to look was stated by the Welding controls in labor market A, 85.71 per cent stating they would look. Only 11.11 per cent of the controls for the Nurse Aide-Orderly program in labor market C stated a desire to look. When it is recalled that 77.78 per cent of the Nurse Aide-Orderly controls were unemployed at some time during the interim and only 44.44 per cent of these controls sought work during the period, the stated expression of so few to look for a job--another job raises the question of their serious intent to actively participate in the labor market.

Why the Welding controls indicate a desire to look for other work when they are the recipients of the highest hourly pay of all controls raises many interesting questions. Certainly it would seem to validate the literature reviewed in Chapter II on job satisfaction; factors other than monetary earnings bear the greatest weight in determining how satisfied an individual is with his work and his proclivity to change.

The controls elected not to enter MDTA training. It seemed to be a point of some interest to determine how they felt about MDTA programs at the time of the final interview, which according to the particular program could be between four and fifteen months from the time

TABLE 4-55 Controls who will or will not look for another job in the near future---statement at 3-month period

Program	Will look		Will not look		Total	
	N	%	N	%	N	%
Computer	4	33.33	8	66.67	12	100.00
Practical Nurse A	4	44.44	5	55.56	9	100.00
Machine Operator, General B	13	56.52	10	43.48	23	100.00
Body Shop	1	16.67	5	83.33	6	100.00
Auto Mechanic	6	60.00	4	40.00	10	100.00
Practical Nurse D	5	55.56	4	44.44	9	100.00
Automatic Screw Machine	4	50.00	4	50.00	8	100.00
Welding	6	85.71	1	14.29	7	100.00
Machine Operator, General A	8	80.00	2	20.00	10	100.00
Clerk-Stenographer	8	61.54	5	38.46	13	100.00
Stenographer-Refresher	5	62.50	3	37.50	8	100.00
Clerk-Typist	5	31.25	11	68.75	16	100.00
Nurse Aide-Orderly	1	11.11	8	88.89	9	100.00
Total	70	50.00	70	50.00	140	100.00

they chose not to enter training. They were asked to state whether they felt favorable towards MDTA, neutral towards, or critical towards. A total of 138 controls replied to the question. The replies are summarized in Table 4-56.

An overwhelming majority, 86.96 per cent, expressed favorable feelings towards MDTA. Only 10.14 per cent were critical of MDTA, four males and ten females. Criticism of the programs then certainly was not the major factor in the election of controls not to enter training.

Section Summary

A total of 38.73 per cent of the controls were unemployed at some time during the interim. Of this number, 8.45 per cent--all females--were voluntarily unemployed. Females were involuntarily unemployed to a greater degree than males also.

Nearly one-half of the controls, 48.59 per cent, never sought work at any place other than the MESC. Sixteen controls, fifteen females and only one male, held no jobs during the interim. One male and four females of the fifteen actively and unsuccessfully sought work during the interim.

For those unemployed, the immediate family and Federal or State Aid provided the chief sources of support.

Only one female control earned less than a dollar an hour on a job held during the interim. Twenty-six males earned three dollars an hour or more with Welding controls receiving the highest hourly pay.

The controls were equally divided in their intentions to seek or not to seek a job--another job in the near future. The stated intention of the highly paid Welding controls to seek work indicated again that

TABLE 4-56 General feeling of controls about MDTA---statement at 3-month period

Program	Favorable Towards		Neutral Towards		Critical Towards		Total	
	N	%	N	%	N	%	N	%
Computer	10	90.91	0	0.00	1	9.09	11	100.00
Practical Nurse A	7	77.78	0	0.00	2	22.22	9	100.00
Machine Operator, General B	19	82.61	1	4.35	3	13.04	23	100.00
Body Shop	3	100.00	0	0.00	0	0.00	3	100.00
Auto Mechanic	10	90.91	0	0.00	1	9.09	11	100.00
Practical Nurse D	10	100.00	0	0.00	0	0.00	10	100.00
Automatic Screw Machine	5	62.50	0	0.00	3	37.50	8	100.00
Welding	6	85.71	0	0.00	1	14.29	7	100.00
Machine Operator, General A	6	60.00	3	30.00	1	10.00	10	100.00
Clerk-Stenographer	13	100.00	0	0.00	0	0.00	13	100.00
Stenographer-Refresher	8	100.00	0	0.00	0	0.00	8	100.00
Clerk-Typist	14	87.50	0	0.00	2	12.50	16	100.00
Nurse Aide-Orderly	9	100.00	0	0.00	0	0.00	9	100.00
Total	120	86.96	4	2.90	14	10.14	138	100.00

earnings was but a single--not a major--contributor to an individual's job satisfaction.

Controls generally felt favorable toward MDTA programs as expressed by them at the time of the final interview. A minority of about ten per cent were critical of MDTA. This expression of favor towards MDTA indicated that criticism of MDTA was not a major determinant in the decision of the controls not to enter training.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This is an evaluative study of the effects of training under the Manpower Development and Training Act on the socio-psychological and socio-economic statuses of 151 selected trainees who entered 13 training programs offered in four standard metropolitan statistical labor market area locations in Michigan. Certain types of programs that outranked all other programs in terms of enrollment nationally at the time this study was undertaken were purposively selected and trainees who entered these programs and either completed training or withdrew from training during the two-year period between August, 1963 and July, 1965 were the principal subjects of this investigation.

Training under MDTA is a relatively new but a tremendously important form of adult education. The magnitude of the training offered under MDTA throughout the nation warranted a study of the effects of such training on those who entered training programs.

The chief purposes for which MDTA is offered are to reduce unemployment and under-employment and to increase the number of workers available for particular occupations in which critical shortages exist. The purposes most frequently cited for which adult education in general is offered are to develop and increase vocational efficiency, vocational security and self-satisfaction. It can be seen that the achievement of the purposes for which MDTA programs and adult education in general are offered should be reflected in the socio-psychological and

io-economic statuses of those who are successful in the MDTA programs
y enter.

It is to this major purpose of evaluating the socio-psychological
socio-economic effects of MDTA training on trainees that this study
directed.

In order to keep MDTA training as a significant variable in this
dy, two comparative methods were employed.

1. A comparison of the socio-psychological and socio-economic
tuses of the trainees before training and three months after the
ining programs they entered were completed was made.

2. A comparison was made between the trainees' socio-psychological
socio-economic statuses and the socio-psychological and socio-economic
tuses of paired controls three months after the training programs the
inees entered were completed.

The control group consisted of subjects who displayed an interest
enrolling for the particular course--or a similar course offered at
same time--that the trainees actually did enter. Those in the
trol group met the same entrance requirements established by MDTA
Michigan Employment Security Commission regulations as the trainee
up; thus both groups were equally qualified to enter training. For
reason, the controls elected not to enter training.

The control group and the trainee (experimental) group were
ched on the following crucial variables: sex, ethnicity, age, educa-
, marital status, General Aptitude Test Battery scores, interest in
same programs, and being in the same labor market location. As
ely as it was possible to do so, they were also matched on the

ber of dependent children they have. A comparison of the pre-training
res of trainees and controls on the six selected socio-psychological
les showed that there were no significant differences between the
ber of trainees and controls who were assigned to high, medium and
categories on any of the six scales.

The data were gathered from three sources. Preliminary data was
ained from MESC records in local labor market area locations. The
or amount of the data was obtained through two structured personal
erviews (one before training and one after training) with the trainees
their matched controls. At the time of the personal interviews the
jects were also administered a socio-psychological instrument com-
ed of six selected socio-psychological scales. Finally, a short
sonal interview was held with the instructors of the selected programs
which time an evaluation of the quality of each trainee's work in the
grams was obtained.

The statistical method employed was the Chi-square test. Although
.05 level of confidence was chosen, it seemed consistent with the
ure of this study to discuss certain relationships and tendencies
ch existed at the .10 level of confidence.

The problem of comparing groups in this study was approached by
ting the groups on selected correlates of socio-psychological and
io-economic status. The general null hypothesis for each sub-test
:

> There is no difference in the socio-psychological and socio-economic status between groups under examination as measured by the correlates of socio-psychological and socio-economic status.

In addition to the before and after training comparison of trainees and the post-training comparison of trainees and controls, trainees identified by the selected personal variables of sex, race, course completion or drop, and degree of success of training achieved were compared on the selected socio-psychological and socio-economic variables at the three-month period following training.

Also considered to be of interest to this study was the labor market participation of the control group during the time the matched trainees were taking training. Because of the critical pairing of trainees and controls, it was postulated that had the trainees also elected not to enter training, their labor market bahavior during the same interim would have approximated the labor market behavior of the controls.

The conclusions were derived exclusively from the findings revealed by the data in this study. Due to the limited size of the sample, several tests could not be utilized because of too few expected frequencies in table cells. However, the sample size is considered adequate to support the acceptance of the conclusions.

The choice of the variables is not a complete description of socio-psychological and socio-economic status; but even these few variables make a contribution to an understanding and evaluation of the effects of MDTA programs on trainees and suggest certain avenues for research which may prove profitable.

Conclusions

On the basis of the findings from the data comparing trainees and their paired controls three months after the training programs the

inees entered had been completed, the following conclusions may
drawn:

1. There is no difference in the employment statuses of trainees
controls. While there are slightly higher percentages of trainees
are employed and who are voluntarily unemployed, and a slightly
her percentage of controls who are involuntarily unemployed, the
ferences are not significant.

2. Trainees found their jobs more satisfying. Nearly half of
trainees (46.27 per cent) stated that their jobs offered them "very
h" satisfaction; only 29.85 per cent of the controls were satisfied
that degree. While some members of both groups were unemployed and
s obtained no job satisfaction and some held jobs that they found
atisfying, controls exceeded trainees in the category of having no
satisfaction by more than 5 per cent. The difference between the
satisfaction of the trainees and the controls is significant at the
level.

3. There is a difference between the wage levels of trainees
controls that is significant at the .10 level. More controls than
inees were earning less than $1.49 an hour, 38.81 per cent compared
30.60 per cent. Trainees exceeded controls in all other hourly pay
egories except the highest, $3 or more an hour. It is postulated
t more controls were in the highest pay category because of the
roved labor market conditions in Michigan that made employment
ilable to the controls at the time or soon after the time that they
cted not to enter training. During the time that their paired
inees were taking training, the controls were participating in the

abor market with the opportunity to earn advancement. Though
rainees had training as an aid in obtaining jobs and advancing
herein, successful trainees had only three months in the labor
arket in which to reach the hourly pay earnings that were compared
o the earnings of their controls. Thus it would seem that the results
f training in terms of earnings may be best appraised when the trainees
ave participated in the labor market for equal lengths of time as their
ontrols.

4. Trainees far exceed controls at the professional (largely
emiprofessional) and managerial levels, 14.18 per cent to 2.99 per cent.
here is a higher percentage of trainees in the skilled occupations
4.93) than there are controls (5.97); far fewer trainees (6.72 per
ent) are listed as unskilled than are controls (20.15 per cent).
ewer trainees are in service occupations and fewer trainees are unem-
oyed. The difference between the occupational statuses of trainees
d controls is highly significant at the .01 level. That trainees
re in better occupational statuses than their controls is clearly
own and this would seem to validate the conclusion that given addi-
onal time in these positions, trainees should achieve higher earnings
all levels than their matched controls.

5. There is a slight difference between the socio-psychological
atuses of trainees and controls. Socio-psychological status was
termined by the use of six socio-psychological scales: responsibility,
lf acceptance, well being, sociability, security and rigidity. There
a difference that is significant at the .05 level on the socia-
ity scale. This is the only scale on which any difference was found.

rainees ranked higher on sociability with 32.52 per cent of the rainees and 24.39 per cent of the controls in the high category. Nearly alf of the controls, 44.72 per cent, were in the low category compared o 27.64 per cent of the trainees.

Because of the possible intervention of unknown variables during he time of training and in the three months following training, it is ot possible to say that training alone was the cause of trainees anking higher in sociability than their controls. However, trainees re clearly identified as being significantly different in sociability tatuses from their matched controls and the difference can be seen to e in the direction of greater sociability.

In an effort to determine whether trainees who did not complete raining might or might not have learned enough while in training to mprove their socio-psychological and socio-economic statuses, those who ntered training but did not finish were compared to their controls at he three-month period. Trainees who successfully completed training ere compared to their controls also. The following conclusions may be rawn:

1. The data indicates that there is no difference between those ıo dropped out of training and their controls on any of the socio-ɜychological or socio-economic correlates. This demonstrates that ıtering training and completing some portions of the programs did not ıprove the statuses of dropouts beyond the level of their controls who ıd the benefits of no training.

2. There is a significant difference between those who com-eted training and their controls on four tests of status: job

tisfaction (.01 level), wage level (.01 level), occupational status
01 level), and sociability status (.05 level). These are the same
ur tests on which there were differences between all the trainees who
tered training and their matched controls. This shows that the dif-
rences between all trainees and all controls is attributable to the
fferences between successful trainees and their controls. Clearly,
is demonstrates the value to trainees of completing the MDTA programs
ey enter.

On the basis of the findings from the data comparing the socio-
ychological and socio-economic statuses of those who entered training
fore they entered training and three months after the programs they
tered were completed, the following conclusions may be drawn:

1. The employment statuses of trainees were greatly improved
llowing training. While only 13.99 per cent of the trainees were
ployed (actually under-employed) before entering training, 82.52 per
nt were employed three months after training. Involuntary unemployment
ior to entering training was high for trainees as 59.44 per cent were
tively and unsuccessfully seeking work. Following training only
09 per cent were involuntarily unemployed.

One of the purposes of MDTA was to draw individuals into needed
cupational areas in the work force. An important gain of needed workers
shown by the fact that before training 26.57 per cent of the trainees
re voluntarily unemployed. After training only 8.39 per cent were
untarily unemployed; and personal interviews with a sizable number of
emakers gives evidence that they planned to enter the labor market
make use of their training as soon as they were able to arrange for

ıe care of their children. Many of the females were interviewed during ıe summer and they stated that they would take work in the fall when ıeir children returned to school. Only a follow-up survey will attest ı their apparent sincerity when stating this.

2. A considerably greater number of trainees expressed "very ıch" satisfaction with the jobs they held after training than expressed .is degree of satisfaction with the last full-time jobs held before ·aining, 44.06 per cent compared to 18.88 per cent. However, when the ·ove average expressions of satisfaction are combined, approximately e same percentage of trainees expressed this degree of satisfaction fore and after training. There are no statistically significant dif- rences in the trainees' expressions of job satisfaction before and ter training.

3. Trainees were definitely better off in terms of hourly rnings following training. On the last full-time jobs they held before tering training, 51.05 per cent of the trainees were earning less than .50 an hour. After training, 30.77 per cent were earning less than .50 an hour. At the high end of the earnings scale, only 14.68 per cent the trainees were earning $2.50 or more an hour before training while .67 per cent were earning that amount on their three-month period jobs. e difference in wage levels between trainees before and after training s highly significant at the .01 level.

4. Those who entered training improved their occupational atuses. There was a great increase in the number of trainees who were the professional and managerial occupations and the skilled occupations. ere was decrease in those who were in unskilled and service occupations.

.mprovement in occupational status is considered of great importance
›ccupation in American society is the most significant status-
:rring role."[1]

5. When the socio-psychological statuses of trainees were
ıred before and after training, it was found that:

a. There was a tendency for trainees to move toward statuses of
:er responsibility.

b. Trainees exhibited an increase in self acceptance after
ıing.

c. There was a slight movement of trainees out of medium well-
ȷ statuses into the high and low categories of the well-being scale,
approximately the same movement into these two categories.

d. Trainees were much higher in sociability following training.

e. The insecurity of trainees decreased considerably following
ıing.

f. Trainees showed a tendency to decrease their rigidity and
toward greater flexibility following training.

The differences between trainees before and after training on
of the six socio-psychological scales comprising the socio-
ıological correlate were highly significant at the .01 level. An
ination of the marginal Ns and percentages shows that changes in
›-psychological statuses did occur. However, it must be noted that
ıigh level of significance of differences between trainees before and

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[1]Wilbur B. Brookover and Sigmund Nosow, "A Sociological Analysis
›cational Education in the United States," Education for a Changing
d of Work, Appendix III (Washington, D. C.: U. S. Department of
th, Education and Welfare, 1963) p. 46.

er training is probably attributable to inter-cell movement of subjects. s observation indicates that the conclusions reached concerning socio- chological statuses are valid, but the stated high levels of sig- icant differences should not be regarded as accurately describing the unt of overall status changes. An evaluation of socio-psychological tus change may be more safely made by an examination of the marginal and the percentages.

To determine whether certain crucial personal variables might luence the effects on trainees of MDTA programs, three selected iables were chosen for analysis: sex, race and course completion or p. According to the findings of the study, the following conclusions be drawn concerning the effects of MDTA on trainees at the three- th period who were identified by the selected variables:

1. There is a difference between the employment statuses of es and females that is significant at the .01 level. More than 90 cent of the males were employed while little more than 73 per cent the females were employed. More than five times as many females as es were voluntarily unemployed with 14.93 per cent of the female inees choosing not to participate in the labor force. It has been ed that many females indicated the intention to seek work when they e able to arrange for the care of their children. A follow-up study determine whether they fulfill this intention seems necessary if gram planners are to be in a position to know whether the large enditures involved in the training of homemakers with the hope of urning them to the labor force is justified.

2. There are great differences in the occupational statuses of

en and women as would be expected because of the types of occupations for
hich they trained. However, there is one finding that is somewhat sur-
rising. More females than males were in professional and managerial
ccupations following training. Since both the male computer pro-
ramming program and the female practical nurse programs prepared
rainees for entry into professional and managerial occupations, it
an be seen that the practical nursing program was more successful.

3. Male trainees were much better paid following training than
males. Over half of the males were earning $2.50 an hour or more.
he difference between them is highly significant at the .01 level.

4. Females were much more satisfied on their three-month period
bs. Only one female actually held a job that was described as unsatis-
ing. Seven males held jobs so classified. About 63 per cent of the
males stated that their jobs were "very satisfying." Only 28 per cent
the males felt this degree of satisfaction. The difference between
e job satisfactions of males and females is highly significant at the
level.

5. There was a difference in the responsibility statuses of
es and females that is highly significant at the .01 level. Females
e definitely shown to rank higher in responsibility status.

6. Males were somewhat more self accepting than females. There
a difference between males and females on the self acceptance scale
is significant at the .10 level.

7. White trainees were somewhat higher than nonwhite trainees
he responsibility scale. The difference between them is significant
e .10 level.

8. The sociability statuses of nonwhite trainees were higher
the sociability statuses of white trainees. The difference between
es and nonwhites on the sociability scale is significant at the .05
l.

9. There is a definite difference between the occupational
uses of trainees who completed training and those who dropped out.
ropouts are in the managerial and professional occupations while
6 per cent of the successful trainees are. There are higher per-
ages of the dropouts in the unskilled and unemployed categories.
s only in skilled and semiskilled categories that a slightly greater
entage of dropouts is found. When the importance of occupational
us is weighed, it can be concluded that successful trainees gained
important asset that those who dropped from training did not. However,
essful trainees and dropouts do not differ significantly on any of
other socio-psychological and socio-economic correlates.

The Success of Training scale was constructed to identify the
ees of success trainees achieved. Trainees did differ in this
vement. It was considered important to this study to determine
ocio-psychological and socio-economic statuses of trainees who
ved different degrees of success. The findings relevant to this
deration allow the following conclusions to be drawn:

1. There is a highly significant difference in the hourly pay
by trainees achieving different degrees of success. The most
sful trainees did not receive the highest pay but fewer of them
the lowest pay category than those achieving other degrees of
. The highest percentage of trainees receiving less than $1.50

n hour were those classified as not successful. Trainees classified s successful were clearly in the best earnings position. There ertainly was no direct relationship between the degree of success chieved and wage level.

2. There are great differences in the occupational statuses of rainees who achieved different degrees of success. No trainees who ere successful or very successful were unskilled or unemployed. The ore successful the trainee, the greater his chances of being in an mproved occupational status.

3. There are no significant differences in the socio-psychological tatuses of trainees achieving different degrees of success. No partic-lar pattern of socio-psychological status allocation can be found. everal interesting observations can be made however. A directly inverse elationship exists between degree of success of training and sociability th successful trainees being lowest in sociability and the unsuccessful ainees being highest in sociability. Also noteworthy is the finding at trainees classified as successful were the most insecure group, th 50 per cent of them in the low security category. These findings uld appear to warrant further investigation.

4. When the degree of success of training scale was tested at three-month period by trainees identified by the selected personal ariables of sex, race and course completion or drop, only sex proved to significant. Females definitely achieved greater degrees of success raining than males. There is a difference between the degrees of ess achieved by males and females that is significant at the .05 .

The interim labor market participation of the controls was analyzed ecause it was felt that the critical pairing of trainees and controls ed to the formation of two groups that were extremely similar on crucial ersonal variables and it could be assumed that had the trainees not lected to enter training their labor market behavior might have approxi- ated that of the controls. If this assumption is valid, it may be oncluded that during the interim period, trainees--if they were not in raining--would have demonstrated the following labor market behavior, he behavior demonstrated by the controls:

1. Almost 39 per cent would have been unemployed at some time uring the period, with about 8 per cent being voluntarily unemployed. nemployment would be much greater for some individuals than others; ver 21 per cent would have been unemployed for a month or more and ver 12 per cent would have been unemployed for three months or longer.

2. Females would have been unemployed to a greater extent than ales; all of the subjects voluntarily unemployed would have been emales. Females in the Nurse Aide-Orderly program in labor market C ould have had the highest per cent of involuntary unemployment. None f the males in the Computer program in labor market A would have been nemployed.

3. Half of the subjects would have never sought work or job nprovement elsewhere than in the offices of the MESC. However, the ther half that was actively seeking work would have averaged almost wo and a half job searches per subject. Only one male, in the General achine Operator program in labor market B would have been unsuccessful n obtaining employment of any kind during the interim.

4. Those who were successful in obtaining employment during the terim would have averaged about one and a half jobs each during that me. Again, those in the Computer program would have the best work cord. Only one subject would have held two jobs, the remainder in the ogram holding only one job throughout the interim.

5. For those who were unemployed, the immediate family and deral or State Aid would have provided the chief sources of support.

6. Only one female would have earned less than a dollar an hour a job held during the interim. Over 20 per cent of the males would ve earned more than $3 an hour on their best paying jobs. No females uld have earned that much. For about 18 per cent of the males, $3 more an hour would have been the lowest pay they earned at any time ring the interim.

7. At the three-month period the subjects would have been ually divided in their stated intentions to start to work if not rking or seek another job if they were working.

8. While the subjects would have elected not to enter training, ey would have generally felt favorable towards MDTA programs; only .14 per cent would have been critical of MDTA. This would indicate at the reasons that prompted subjects to elect not to enter training re not based on a critical attitude toward MDTA.

Recommendations

The following recommendations come not only from the findings vealed by the data but are also strongly influenced by the writer's periences during the interviews and by visits to MESC offices and TA sites.

1. Studies that are longitudinal in nature are needed to gain tter understanding of the effects of MDTA training.

2. Studies such as the present one should be replicated in erent labor market areas and with trainees from different types of rams.

3. Further study is needed in the development of the tools and niques for measuring socio-psychological and socio-economic status.

4. Further study is needed to determine why individuals in icular socio-psychological statuses are or are not successful in ning programs and in their labor market participation.

5. Utilization of manpower resources is so vital to the nation there should be a national clearing house for manpower research and ications.

6. The criteria established to serve as a screening device for admission of individuals to training should be carefully examined and it is determined to be suitable, it should be adherred to and not ed in certain cases because there would not be a sufficient number of ified individuals to warrant the establishment of a class.

7. There should be an employment security commission counselor ach MDTA training site who would offer vocational counseling and ement services as they are needed. This counselor should be trained elp trainees with personal problems and should work in close coopera- with local social welfare agencies.

8. Many mediums should be employed to inform potential trainees ne availability of MDTA programs. Schools should be asked to it the names of dropouts to employment security commission offices

at dropouts can be encouraged to consider MDTA.

9. Trainees who have only themselves to support should receive allowance while in training other than a possible transportation ance. Lack of funds to maintain themselves while in training was f the principal reasons given by single trainees for leaving training.

10. The Federal Government should offer subsidy payments to in trainees who have successfully completed training programs but entry level earnings would be less than they might receive in al or State aid. It would seem wise to offer a subsidy of, say, month to an individual who would otherwise remain out of the labor t and receive as much as $180 a month in aid payments.

11. There is a need for the cooperation of unions to aid in the btion of skilled trainees who have opportunities barred from them though they have successfully completed training.

12. Even though much of the subject matter taught in MDTA programs ch that it does not require a professionally trained educator to the material, MDTA teachers should have on-the-job training work- in such areas as instructional methods and materials, theories of ing, and the psychology of human behavior. The variance in the ing capabilities of MDTA instructors is greater than would be found y other instructional programs or institutions.

13. Institutions of higher learning interested in adult vocational .on should give careful consideration to the development of programs .cally designed for the preparation of individuals who may become -y engaged in programs such as MDTA.

APPENDIX A

Distribution of the Sample

Program	Location							
	A		B		C		D	
	N	%	N	%	N	%	N	%
Computer	12	21.43						
Practical Nurse A	9	16.07						
Practical Nurse D							10	21.74
Machine Operator, General A	13	23.21						
Machine Operator, General B			23	100.00				
Body Shop							8	17.39
Auto Mechanic							11	23.91
Automatic Screw Machine							9	19.57
Welding	9	16.07						
Clerk-Stenographer	13	23.21						
Stenographer-Refresher							8	17.39
Clerk-Typist					17	65.38		
Nurse Aide-Orderly					9	34.62		
Total	56	100.00	23	100.00	26	100.00	46	100.00

TABLE A-2 Distribution of the Sample by Program and Sex

PROGRAM	SEX					
	Male		Female		TOTAL	
	N	%	N	%	N	%
Computer	11	91.67	1	8.33	12	100.00
Practical Nurse A			9	100.00	9	100.00
Practical Nurse D			10	100.00	10	100.00
Machine Operator, General A	13	100.00			13	100.00
Machine Operator, General B	23	100.00			23	100.00
Body Shop	8	100.00			8	100.00
Auto Mechanic	11	100.00			11	100.00
Automatic Screw Machine	9	100.00			9	100.00
Welding	9	100.00			9	100.00
Clerk-Stenographer			13	100.00	13	100.00
Stenographer-Refresher			8	100.00	8	100.00
Clerk-Typist			17	100.00	17	100.00
Nurse Aide-Orderly			9	100.00	9	100.00
Total	84	55.62	67	44.37	151	100.00

TABLE A-3 Distribution of the sample by program and race

PROGRAM	RACE					
	White		Non-White		TOTAL	
	N	%	N	%	N	%
Computer	12	100.00			12	100.00
Practical Nurse A	9	100.00			9	100.00
Practical Nurse D	7	70.00	3	30.00	10	100.00
Machine Operator, General A	12	92.30	1	7.70	13	100.00
Machine Operator, General B	23	100.00			23	100.00
Body Shop			8	100.00	8	100.00
Auto Mechanic	3	27.27	8	72.73	11	100.00
Automatic Screw Machine	6	66.67	3	33.33	9	100.00
Welding	8	88.89	1	11.11	9	100.00
Clerk-Stenographer	11	84.62	2	15.38	13	100.00
Stenographer-Refresher	8	100.00			8	100.00
Clerk-Typist	14	82.35	3	17.65	17	100.00
Nurse Aide-Orderly	2	22.22	7	77.78	9	100.00
Total	115	76.15	36	23.84	151	100.00

TABLE A-4 Distribution of the sample by program and age

PROGRAM	19 yrs. and under		20-24		25-29		AGE 30-34		35-39		40-44		45-49		50 yrs. and over		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	2	16.67	5	41.67	3	25.00	2	16.67									12	100.00
Practical Nurse A	1	11.11	1	11.11			1	11.11	3	33.33			2	22.22	1	11.11	9	100.00
Practical Nurse D			3	30.00	3	30.00	1	10.00					3	30.00			10	100.00
Machine Operator, General A	6	46.15	5	38.46	2	15.38											13	100.00
Machine Operator, General B	2	8.70	10	43.48	4	17.39	2	8.70	4	17.39			1	4.35			23	100.00
Body Shop					3	37.50			1	12.50	4	50.00					8	100.00
Auto Mechanic			1	9.09	5	45.45	1	9.09	3	27.27	1	9.09					11	100.00
Automatic Screw Machine			2	22.22			1	11.11	2	22.22	2	22.22	1	11.11	1	11.11	9	100.00
Welding			2	22.22	3	33.33	3	33.33	1	11.11							9	100.00
Clerk-Stenographer	4	30.77	1	7.69	1	7.69	3	23.08	2	15.38			2	15.38			13	100.00
Stenographer-Refresher	2	25.00	1	12.50	1	12.50	2	25.00	1	12.50	1	12.50					8	100.00
Clerk-Typist	2	11.76	3	17.65	3	17.65					3	17.65	4	23.53	2	11.76	17	100.00
Nurse Aide-Orderly	4	44.44	4	44.44	1	11.11											9	100.00
Total	23	15.23	38	25.17	29	19.27	16	10.60	17	11.26	11	7.28	13	8.61	4	2.65	151	100.00

PROGRAM	EDUCATION*													
	8 years or less		9		10		11		12		13		14 years or more		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer									7	58.33	2	16.67	3	25.00	12	100.00
Practical Nurse A					1	11.11	1	11.11	5	55.56	1	11.11	1	11.11	9	100.00
Practical Nurse D							2	20.00	7	70.00			1	10.00	10	100.00
Machine Operator, General A	1	7.69	1	7.69	2	15.38	1	7.69	8	61.54					13	100.00
Machine Operator, General B	5	21.74			3	13.04	2	8.70	11	47.83	2	8.70			23	100.00
Body Shop			3	37.50	3	37.50			2	25.00					8	100.00
Auto Mechanic			2	18.18			3	27.27	5	45.45	1	9.09			11	100.00
Automatic Screw Machine					1	11.11	4	44.44	3	33.33	1	11.11			9	100.00
Welding	2	22.22	3	33.33	2	22.22			1	11.11	1	11.11			9	100.00
Clerk-Stenographer							1	7.69	12	92.31					13	100.00
Stenographer-Refresher									7	87.50			1	12.50	8	100.00
Clerk-Typist									15	88.24	1	5.88	1	5.88	17	100.00
Nurse Aide-Orderly	1	11.11	2	22.22			1	11.11	5	55.56					9	100.00
Total	9	5.96	11	7.28	12	7.94	15	9.93	88	58.27	9	5.96	7	4.63	151	100.00

*Grade actually completed or General Education Development equivilency test passed for the grade.

TABLE A-6 Distribution of the [illegible]

PROGRAM	MARITAL STATUS										TOTAL	
	Married		Single		Divorced		Separated		Widow			
	N	%	N	%	N	%	N	%	N	%	N	%
Computer	6	50.00	5	41.67	1	8.33					12	100.00
Practical Nurse A	7	77.78	2	22.22							9	100.00
Practical Nurse D	3	30.00	3	30.00	1	10.00	2	20.00	1	10.00	10	100.00
Machine Operator, General A	6	46.15	7	53.85							13	100.00
Machine Operator, General B	15	65.22	8	34.78							23	100.00
Body Shop	6	75.00	1	12.50	1	12.50					8	100.00
Auto Mechanic	11	100.00									11	100.00
Automatic Screw Machine	9	100.00									9	100.00
Welding	7	77.78					2	22.22			9	100.00
Clerk-Stenographer	3	23.08	4	30.77	6	46.15					13	100.00
Stenographer- Refresher	2	25.00	3	37.50	2	25.00	1	12.50			8	100.00
Clerk-Typist	7	41.18	3	17.65	1	5.88	2	11.76	4	23.53	17	100.00
Nurse Aide-Orderly	3	33.33	5	55.56			1	11.11			9	100.00
Total	85	56.29	41	27.15	12	7.94	8	5.29	5	3.31	151	100.00

PROGRAM	Unknown		79 or less		GATB measure of intelligence 80-89		90-99		100-109		110-119		120-129		130 or more		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer											1	8.33	6	50.00	5	41.67	12	100.00
Practical Nurse A							1	11.11	4	44.44	2	22.22	2	22.22			9	100.00
Practical Nurse D							4	40.00	5	50.00	1	10.00					10	100.00
Machine Operator, General A					4	30.77	2	15.38	3	23.08	3	23.08			1	7.69	13	100.00
Machine Operator, General B			3	13.04	3	13.04	2	8.70	9	39.13	4	17.39	2	8.70			23	100.00
Body Shop			1	12.50	2	25.00	4	50.00	1	12.50							8	100.00
Auto Mechanic					3	27.27	5	45.45	3	27.27							11	100.00
Automatic Screw Machine							2	22.22	4	44.44	3	33.33					9	100.00
Welding					1	11.11	3	33.33	3	33.33			2	22.22			9	100.00
Clerk-Stenographer					1	7.69	3	23.08	6	16.15	3	23.08					13	100.00
Stenographer-Refresher	8	100.00															8	100.00
Clerk-Typist							4	23.53	8	47.06	5	29.41					17	100.00
Nurse Aide-Orderly			5	55.56	2	22.22	1	11.11	1	11.11							9	100.00
Total	8	5.30	9	5.96	16	10.60	31	20.53	47	31.13	22	14.57	12	7.94	6	3.97	151	100.00

TABLE A-8 Distribution of the sample by program and number of dependent children

PROGRAM	NUMBER OF DEPENDENT CHILDREN												TOTAL	
	0		1		2		3		4		5		6 or more			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	7	58.33			2	16.67	1	8.33	1	8.33	1	8.33			12	100.00
Practical Nurse A	2	22.22	1	11.11	4	44.44	2	22.22							9	100.00
Practical Nurse D	3	30.00	5	50.00	1	10.00	1	10.00							10	100.00
Machine Operator, General A	7	53.85	2	15.38	2	15.38			1	7.69			1	7.69	13	100.00
Machine Operator, General B	9	39.13	6	26.09	2	8.70	3	13.04	2	8.70	1	4.35			23	100.00
Body Shop	1	12.50	3	37.50			1	12.50					3	37.50	8	100.00
Auto Mechanic	1	9.09	1	9.09	4	36.36	2	18.18					3	27.27	11	100.00
Automatic Screw Machine			5	55.56	3	33.33					1	11.11			9	100.00
Welding	1	11.11	1	11.11	4	44.44	1	11.11			1	11.11	1	11.11	9	100.00
Clerk-Stenographer	4	30.77			3	23.08	4	30.77	1	7.69			1	7.69	13	100.00
Stenographer-Refresher	3	37.50	1	12.50	1	12.50	2	25.00			1	12.50			8	100.00
Clerk-Typist	4	23.53	4	23.53	5	29.41	1	5.88	3	17.65					17	100.00
Nurse Aide-Orderly	4	44.44	1	11.11	2	22.22	2	22.22							9	100.00
Total	46	30.46	30	19.87	33	21.85	20	13.25	8	5.30	5	3.31	9	5.95	151	100.00

TABLE A-9 Distribution of the sample programs by duration of training

PROGRAM	DURATION																	
	4 wks.		16 wks.		20 wks.		30 wks.		33 wks.		40 wks.		44 wks.		50-52 weeks		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer													1	100.00			1	100.00
Practical Nurse A															1	100.00	1	100.00
Practical Nurse D															1	100.00	1	100.00
Machine Operator, General A					1	100.00											1	100.00
Machine Operator, General B															1	100.00	1	100.00
Body Shop											1	100.00					1	100.00
Auto Mechanic															1	100.00	1	100.00
Automatic Screw Machine									1	100.00							1	100.00
Welding							1	100.00									1	100.00
Clerk-Stenographer							1	100.00									1	100.00
Stenographer-Refresher			1	100.00													1	100.00
Clerk-Typist					1	100.00											1	100.00
Nurse Aide-Orderly	1	100.00															1	100.00
Total	1	7.69	1	7.69	2	15.38	2	15.38	1	7.69	1	7.69	1	7.69	4	30.76	13	100.00

TABLE A-10 Distribution of the sample by length of involuntary unemployment immediately prior to entering training

PROGRAM	None		Less than one month		1 month less than 3 months		3 months less than 6 months		6 months less than 9 months		9 months less than 12 months		12 months less than 24 months		24 months or more		TOTAL	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Computer	3	25.00	1	8.33	1	8.33	1	8.33	3	25.00	3	25.00					12	100.00
Practical Nurse A	5	55.56	1	11.11	3	33.33											9	100.00
Practical Nurse D	2	20.00	1	10.00			2	20.00	2	20.00	1	10.00	1	10.00	1	10.00	10	100.00
Machine Operator, General A	6	46.15	2	15.38	4	30.77	1	7.69									13	100.00
Machine Operator, General B	10	43.48	2	8.70	7	30.43	2	8.70			1	4.35	1	4.35			23	100.00
Body Shop	2	25.00	1	12.50			1	12.50	1	12.50			1	12.50	2	25.00	8	100.00
Auto Mechanic	3	27.27	1	9.09			1	9.09			2	18.18	1	9.09	3	27.27	11	100.00
Automatic Screw Machine	1	11.11					4	44.44	3	33.33	1	11.11					9	100.00
Welding	1	11.11			5	55.56	2	22.22	1	11.11							9	100.00
Clerk-Stenographer	5	38.46			5	38.46	2	15.38			1	7.69					13	100.00
Stenographer-Refresher	6	75.00	1	12.50			1	12.50									8	100.00
Clerk-Typist	9	52.94	1	5.88	1	5.88	1	5.88	2	11.76	1	5.88	2	11.76			17	100.00
Nurse Aide-Orderly	4	44.44	1	11.11							2	22.22	1	11.11	1	11.11	9	100.00
Total	57	37.75	12	7.95	26	17.22	18	11.92	12	7.95	12	7.95	7	4.63	7	4.64	151	100.00

APPENDIX B

Trainee Selection Criteria

TABLE B-1 Established minimum Michigan Employment Security Commission Selection Criteria for Sample Programs

PROGRAM	SEX		AGE LIMITS		EDUCATION	GENERAL APTITUDE TEST BATTERY							
	M	F	Lower	Upper		G	V	N	S	P	Q	K	F	M
Computer	Yes	Yes	18	50	12[a]	115		125	100					80
Practical Nurse A & D[b]	Yes	Yes	18	55	10	90	90				90	90		
Machine Operator, General A	Yes	No	18	60	8	75							75	80
Machine Operator, General B[c]	Yes	No	18	60	8	90		85	90					80
Body Shop	Yes	No	18	50	8	95			95					85
Auto Mechanic[d]	Yes	No	18	55	10	85			85				85	
Automatic Screw Machine[e]	Yes	No	21	60	8	90		85	90					80
Welding[f]	Yes	No	18	55	8	70			80	80			85	80
Clerk-Stenographer	Yes	Yes	18	60	10	95				100	100	100		
Stenographer-Refresher[g]	Yes	No	18	45	12[h]									
Clerk-Typist	Yes	No	17	55	12[h]	95				100	100	100		
Nurse Aide-Orderly[i]	Yes	Yes	18	60	8	80	80					85		

[a] Includes one year of algebra

[b] Must be neat appearing and capable of standing on feet for long periods of time

[c] Several trainees with one or more scale scores lower than the stated minimum requirements were admitted to the class so that the class would be at full enrollment

[d] Three months minimum work experience

[e] One year's experience as machine operator, general, with knowledge of blue print reading and ability to use measuring instruments such as micrometer, gauges, calipers, etc.

[f] Must possess adequate vision and depth perception and be able to perform physical tasks required of welders

[g] Minimum of one year of typing or shorthand or equivalent experience. Typing, 25 WPM within error limit. Shorthand, 60 WPM within error limit. Well-groomed, neat in appearance.

[h] Preferred, not required.

[i] Must take X-Ray and blood test to obtain Food Handler's Card. Must be well-groomed. Must desire to work with aged and have the ability to get along with them.

APPENDIX C

TABLE C-1 Trainee-Control pairs mean inspection data[1]

	MEAN AGE	MEAN EDUCATION	GENERAL APTITUDE TEST BATTERY SCALE MEANS[2] G	V	N	S	P	Q	K	F	M
Trainees	29.21	11.45	102.94	100.47	99.01	106.06	104.90	106.71	104.61	97.76	106.23
Controls	29.50	11.58	103.26	99.86	99.08	106.92	100.46	104.04	103.32	97,32	106.74

1. Trainees and controls also paired on the following variables: labor market location, interest in the same program, sex, ethnicity, marital status.
2. For programs where selected GATB scale scores were entrance requirements and for any other programs for which MESC had scale scores available.

APPENDIX D

Letters Requesting Post-training Interviews

MICHIGAN STATE UNIVERSITY East Lansing

School of Labor and Industrial Relations

Letter to
Controls and
Dropouts

A few months ago we contacted you and enlisted your help for a research study we were conducting for the Department of Labor. Your cooperation at that time was appreciated as it was most important to us in our comparative study.

Now we are nearing the completion of our research project. For two years we have been researchfully studying employment, unemployment, labor markets and Manpower Development and Training Programs in Michigan. Soon our final evaluation report will be submitted to the U.S. Department of Labor. This report will serve as a guideline in the establishment, administration and conduct of future Manpower Development and Training programs.

In order to help us develop our final evaluative report we need to ask for your cooperation again. As we told you during our first interview, you will not be identified in any way in our study; but the information and suggestions you give us will become a part of our overall findings and recommendations. It is only by personally asking people such as you to share your considerations of the points under study with us that we shall be able to present an accurate evaluative report to the Government. What you have to say is important to us. We have found that we obtain much more useful data by seeking your help than we would obtain if we relied upon administrators and officials at the local and state levels.

In the near future one of our staff members who is chiefly engaged in the phase of our research project with which you can be of the greatest help will contact you to arrange for a short final interview. Your continued cooperation will be appreciated by those of us who have been so closely involved with the research project and by the Department of Labor which is in need of up-to-date guidelines for future use.

Sincerely,

Darrell G. Jones
Office of Manpower, Automation and Training Research Project

DJ: bw

MICHIGAN STATE UNIVERSITY East Lansing

Letter to Trainees

School of Labor and Industrial Relations

Several months ago you successfully completed your MDTA training. We hope that the skills you developed in the course have been of much value to you. In a manner of speaking, we are nearing the completion of our course now, too. After two years of studying the MDTA programs in Michigan, we will soon submit our final evaluative report to the Department of Labor. This report will serve as a guideline in the establishment, administration and conduct of future MDTA classes.

In order to help us develop our final evaluative report, we need to enlist your cooperation again. As we told you during our last interview with you, you will not be identified in any way in our study; but the information and suggestions you give us will become a part of our overall findings and recommendations. It is only by personally asking each MDTA trainee to share considerations of the program with us that we shall be able to present an accurate evaluative report to the Government. What you have to say is important to us.

In the near future, one of our staff members who is chiefly engaged in the phase of our research project with which you can be of the greatest help will contact you to arrange for a short final interview. Your continued cooperation will be appreciated by those of us here who have been so closely involved with the research project and by the Department of Labor which is in need of up-to-date guidelines for the development of future programs.

Sincerely,

Darrell G. Jones
Office of Manpower, Automation and Training Research Project

DJ:cs

APPENDIX E

Instruments

Pre-training Interview Form

Post-training Interview Form

Socio-psychological Inventory

Instructor Interview Evaluation Form

Note: The interview items that are reproduced here are those that have particular applicability to this study and are a part of the composition of a larger instrument utilized in a study directed by Dr. Sigmund Nosow.

Pre-training Schedule #_____

Name_____

Address_____
(street, city, or township)

Date of Interview_____ Time Started_____

Hello. I'm _____. I'm working for Michigan State University. We're doing a survey of people who have expressed an interest in a government retraining program. Our survey is trying to find out what these people think about retraining, what they are like, a little about their families, what sort of work they have done before, and so forth. The Michigan State Employment Security Commission (M.E.S.C.) gave us a list of all people interested in retraining. Your name is one of those we chose.

(If there is hesitancy complete the introduction. If no hesitancy go in and then complete the introduction).

You know how surveys work. Everything is confidential and peoples' names are never used. Your name is just a number in our file at Michigan State so no one ever knows who says what. What we do is put together all the answers so our results are something like: So many people think retraining ought to be like this, etc. Just like some surveys which say so many people are going to vote Republican or Democratic.

****

(The questions on this page are asked of potential controls. Begin trainee interview on page 2).

1a. You have expressed an interest in a retraining program. Is that right?

Yes_____ No_____

1b. (IF NO) You asked about one at the M.E.S.C.?

If interviewee still insists that he was not interested, terminate interview.

"We've made a mistake, we thought you were one of those persons who expressed an interest in retraining. Thank you very much."

1c. (IF YES) Why didn't you get into a training program?

(PROBE)

2a. Are you employed now?

Yes_____(IF YES GO TO 2b)

No_____(IF NO GO TO 4---p.3)

2b. Where are you working?_____
(Name of company and name of city)

2c. Is it____fulltime or part-time_____?

2d. How long have you been employed there? _____ years _____ months

2e. What do you do? (Title of job if there is one, and job description of what is actually done)

2f. What is your hourly rate of pay? (weekly salary, etc.)_____

2g. How many hours do you usually work a week? _____
(If over forty ask about overtime pay)

2h. Do you get a paid vacation?

No_____

Yes_____ 2i. How long is it?_____

2j. Do you get any paid holidays?

No_____

Yes_____ 2k. How many?_____

2l. Do you get any other benefits?

2m. How did you get the job?

Friends_____ Newspaper Ad_____ M.E.S.C._____

At company employment office_____ Other_____
(specify)

2n. Would you say you like this job:

Very much_____ Pretty Well_____ So-So_____

Not very much_____ Not at all_____

2o. (PROBE) Are there any things that you specifically like about it?

2p. Are there any things that you specifically dislike about it?

2q. Have you ever had any different jobs with this company? (PROBE) for transfers, up-grading, or promotion)

No_____

Yes_____ 2r. Find out titles of jobs and job descriptions, whether fulltime or part-time, and reasons for moves.

3a. If you were in an employment office today looking for work and they asked you what you consider to be your line of work, what would you tell them?

3b. What kind of work would you say you have had the most experience in?

3c. What kind of work do you think you are best trained for?

3d. When did you become interested in retraining?

3e. Why? (PROBE)

(GO TO PAGE 5 QUESTION 10)
****

4. How long have you been unemployed? _____ months _____ years

5a. Where did you work last? (Name of company and city)

5b. How long were you employed there? _____ years _____ months

5c. What did you do? (Specific job title and job description of what was actually done?)

5cc. Was it_____fulltime or _____part-time?

5d. What was your hourly rate (weekly salary, etc.) _____

5e. How many hours did you usually work a week? _____ (If over forty ask about overtime pay)

5f. Did you get a paid vacation?

No_____

Yes_____ 5g. How long was it?_____

5h. Did you get any paid holidays?

No_____

Yes_____ 5i. How many?_____

5j. Did you get any other benefits?

5k. How did you get the job?

51. Would you say you liked this job:

Very much_____ Pretty well _____ So-So _____

Not very much_____ Not at all_____

5m. Are there any things you specifically liked about it?

5n. Are there any things you specifically disliked about it?

5o. Why did you leave?

5p. Did you have any other job with the company?

No_____

Yes_____ (Specify types of jobs and whether promoted, transferred, up-graded, fulltime or part-time).

6. If you were in an employment office today looking for work and they asked you what you consider to be your line of work, what would you tell them?

7. What kind of work would you say you have had the most experience in?

8. What kind of work do you think you are best trained for?

9a. When did you become interested in retraining?

9b. Why? (PROBE)

S _____
A _____
M.S. _____
A.E. _____

Interviewer _____ Time Completed _____

Post-training Schedule #_____

Name _____

Address _____

Date of Interview _____ Time Started _____

Hello. I'm _____. I'm working for Michigan State University. We're doing our follow-up interview to find out what you've been doing since you completed your retraining. This interview is short and shouldn't take more than one-half hour of your time.

****

T* 1. When did you complete training? (Date)

T 2a. Did you have a job at the time you completed training?

No_____ (Go to Question 3a, p. 2)

Yes_____

C 2a. Did you have a job at the last time we interviewed you?

No_____ (Go to Question 3a, p. 2)

Yes_____ 2aa. Are you still there? Yes_____ No_____

TC 2b. Where were (are) you working? _____
Name of company and city

2bb. What does the company do? _____

TC 2c. Was (is) it _____fulltime or_____ part-time?

TC 2d. How long were you (have you been) employed there? _____ years _____ months

*T, questions asked of Trainees. C, questions asked of Controls. TC, questions asked of both Trainees and Controls.

TC 2e. What did (do) you do? (Title of job if there was one and job description of what was actually done).

TC 2f. What was (is) your hourly rate of pay? (weekly salary, etc.) _____

TC 2g. How many hours did (do) you usually work a week?_____ (If over forty hours, ask about overtime pay).

TC 2h. Did (do) you get a paid vacation?

No_____Yes_____2i. How long was it?_____

TC 2j. Did (do) you get any paid holidays?

No_____Yes_____ 2k. How many?_____

TC 21. Did you get any other benefits?

TC 2m. How did you get the Job?

Friends_____ Newspaper Ad _____

At company employment office_____

M.E.S.C._____ Other_____ (specify)

TC 2n. Would you say you liked this job:

Very much_____ Pretty much_____ So-So_____

Not very much _____ Not at all _____

2o. (Probe) Are there any things you specifically liked about it?

2p. Are there any things you specifically disliked about it?

TC 2q. Have you ever had any different jobs with this company? (Probe for transfers, up-grading, or promotion).

No_____

Yes_____ 2r. Find out titles of jobs and job descriptions, whether fulltime or part-time, and reasons for moves.

T 3a. After you completed training did you start looking for a new job immediately?

Yes_____ (Go to Question 3b on next page).

No_____ 3c. What did you do?

T 3d. Have you looked for work (other work)?

Yes_____ (Go to 3b on next page).

No_____ 3e. Why not?

* * *

Turn to next page and complete Job Information Sheet

* * *

T 4a. How have you been getting along financially since you completed training? (Since you lost your last job?)

C 4a. Have you been unemployed at any time since we interviewed you?

No_____

Yes_____ 4aa. How did you get along financially?

TC 4b. Has you wife (husband) worked during this time?

No_____

Yes_____ 4c. What type of work? (Title and description)

4d. Wages (indicate hourly, weekly, per month) _____

4e. Hours per week_____ (If over 40, ask about over)

TC 3b. Where did you go to look for your first job at the end of training (or, in the case of controls, since we last interviewed you). (Continue on next pages to fill in for 2nd and 3rd jobs, etc., if respondent has more than one job. BE SURE TO FILL IN FIRST PART OF THIS PAGE WHETHER OR NOT SUCCESSFUL IN OBTAINING FIRST JOB.

Dates (Approx.)	Location	Company and what it does	Type of job looked for	Why this Company	Why this type of job	Were you hired?	
						No	Yes

IF JOB OBTAINED FILL IN SECTIONS A AND B ACROSS THE PAGE:

SECTION A - FIRST JOB

Where Employed Company Location	Full-time	Part-time	When Started to Work	Job Title Job Description	Wage Rate & Hrs/Wk	How Job was acquired

SECTION B

How did you like this job?	Was your retraining helpful in getting this job? Why do you say this?	Was your retraining helpful on the Job? Why do you say this?	Date of Termination Why?	How did you manage financially while unemployed?

Note: As many pages of this form as were needed were used.

TC 4f. Have you received welfare?

No_____

Yes_____ 4h. What type? Dates-Duration

TC 5a. (You mentioned using M.E.S.C.- Michigan Employment Office) Did you go to the M.E.S.C. to try to get a job since we last interviewed you?

Yes_____ 5b. Did they help you get a job?

Yes_____

No _____ 5c. Why not?

5d. What type jobs did they refer you to? (Job, company, locality)

No_____ 5e. Why not?

TC 6a. Do you think retraining would have (has) done you

A great deal of good_____ Some good_____ Not very much good_____

No good at all_____ Undecided_____

6b. Why do you say this?

T 7. In looking back at your retraining program, do you have any suggestions which might improve such a program?

T 8a. Have you recommended retraining to anyone since you completed the program?

No_____

Yes_____ 8b. How many persons?

8c. Do you know whether they have done anything about it? What? (list each)

C 9. How does your family feel about retraining now?

T 9. How does your family feel about the retraining now that you have been through with it for a few months?

TC 10. What do some of your other relatives think about retraining now?

TC 11. What do your friends think about retraining now?

IF CURRENTLY EMPLOYED

TC 12a. Do you think you will look for another job in the near future?

No_____

Yes_____ 12b. What type of job?

12c. Why do you say this?

TC 13a. Would you look for work in another city? Yes_____ No_____

13b. Why do you say this?

(Go to Question 14a.)

IF CURRENTLY UNEMPLOYED

TC 12a. What is the best kind of job you think you can get now?

12b. Why do you say this?

TC 13a. Do you think you might look for work in another city---you might move elsewhere? Yes_____ No_____

13b. Why do you say this?

(Go to Question 14a)

TC 14a. Is your wife (husband) working now?

No_____

Yes_____ 14b. What type of work? (Title and description)

14c. Wages (indicate hourly, weekly, per month)_____

14d. Hours per week_____
(If over forty hours, ask about overtime pay)

C 15a. If you had it to do all over again, would you:

_____Take the retraining course for which you were considered at the time we first interviewed you.

_____Choose a different type of training.

_____Not go into any training program.

15b. Why do you say this?

C 16a. Have you tried to get into another retraining program?

No_____

Yes_____ 16b. Which program?

16c. Did you start the program? No____ Yes___

C 17a. Have you considered getting into or entered any other type of training?

No_____

Yes_____ 17b. What type training?

17c. Have you entered the training? Yes___ No___

T 15a. If you had it to do all over again, would you:

_____Go into the same training course and the same class.

_____Go into the same training course but a different class.

_____Go into a different type of training.

_____Not go into any training program.

15b. Why do you say this?

T 18a. Have you seen any of the people you had in your retraining class since you completed the program?

No_____

Yes_____ 18b. Where?

T 19a. Would you like to visit any of them (any others) socially?

No_____

Yes_____ 19b. Do you think you might in the near future?

T. 20a. Have you seen any of your instructors since you completed training?

No_____

Yes_____ 20b. What were the circumstances?

TC 21. All in all, just how do you feel about retraining?

(Probe) Anything else?

Interviewer_____ Time Completed_____

Comments:

The following statements are to be answered by checking either "yes" or "no". If you are not sure, check "undecided". Every answer is a good answer. There are no rights or wrongs.

YES	NO	UNDECIDED		
___	___	___	1.	Do you feel sorrow and pity for yourself when things go wrong?
___	___	___	2.	Do you feel that you are a success at your work or your job?
___	___	___	3.	Do you ordinarily let people see what you are really like?
___	___	___	4.	Do you feel that you are not satisfactorily adjusted to life?
___	___	___	5.	Do you ordinarily proceed on the assumption that things usually tend to turn out all right?
___	___	___	6.	Do you generally feel "good"?
___	___	___	7.	Do you get along well with the opposite sex?
___	___	___	8.	Do you feel that in general most people can be trusted?
___	___	___	9.	Do you feel that you are useful in the world?
___	___	___	10.	Do you ordinarily get on well with others?
___	___	___	11.	Do you spend much time worrying about the future?
___	___	___	12.	Do you usually feel well and strong?
___	___	___	13.	Do you have the feeling of being a burden to others?
___	___	___	14.	Do you have difficulty in expressing your feelings?
___	___	___	15.	Do you usually rejoice in the happiness or good fortune of others?
___	___	___	16.	Do you often feel left out of things?
___	___	___	17.	Do you tend to be a suspicious person?
___	___	___	18.	Do you ordinarily think of the world as a nice place to live in?
___	___	___	19.	Do you get upset easily?
___	___	___	20.	Do you think of yourself often?
___	___	___	21.	Do you feel that you are living as you please rather than as someone else pleases?
___	___	___	22.	Are you a good conversationalist?
___	___	___	23.	Are you troubled with feelings of interiority?
___	___	___	24.	Are you ever troubled with an idea that people are watching you on the street?
___	___	___	25.	Do you feel that life is a great burden?

This page contains a series of statements. Read each one, decide how you feel about it, and then check (✓) your answer in one of the columns at the left side of the statement. If you agree with a statement, or feel that it is true about you, check TRUE. If you disagree with a statement, or feel that it is not true about you, check FALSE.

TRUE	FALSE		
____	____	1.	I am often the last one to give up trying to do a thing.
____	____	2.	There is usually only one best way to solve most problems.
____	____	3.	I prefer work that requires a great deal of attention to detail.
____	____	4.	I often become so wrapped up in something I am doing that I find it difficult to turn my attention to other matters.
____	____	5.	I dislike to change my plans in the midst of an undertaking.
____	____	6.	I never miss going to church.
____	____	7.	I usually maintain my own opinions even though many other people may have a different point of view.
____	____	8.	I find it easy to stick to a certain schedule, once I have started it.
____	____	9.	I do not enjoy having to adapt myself to new and unusual situations.
____	____	10.	I prefer to stop and think before I act even on trifling matters.
____	____	11.	I try to follow a program of life based on duty.
____	____	12.	I usually find that my own way of attacking a problem is best, even though it doesn't always seem to work in the beginning.
____	____	13.	I am a methodical person in whatever I do.
____	____	14.	I think it is usually wise to do things in a conventional way.
____	____	15.	I always finish tasks I start, even if they are not very important.
____	____	16.	I often find myself thinking of the same tunes or phrases for days at a time.
____	____	17.	I have a work and study schedule which I follow carefully.
____	____	18.	I usually check more than once to be sure that I have locked a door, put out the light, or something of the sort.
____	____	19.	I have never done anything dangerous for the thrill of it.
____	____	20.	I believe that promptness is a very important personality characteristic.
____	____	21.	I am always careful about my manner of dress.
____	____	22.	I always put on and take off my clothes in the same order.

This page contains a series of statements. Read each one, decide how you feel about it, and then check (✓) your answer in one of the columns at the left side of the statement. If you agree with a statement, or feel that it is true about you, check TRUE. If you disagree with a statement, or feel that it is not true about you, check FALSE.

Be sure to answer either TRUE or FALSE for every statement, even if you guess at some.

TRUE	FALSE		
____	____	1.	I enjoy social gatherings just to be with people.
____	____	2.	I looked up to my father as an ideal man.
____	____	3.	A person needs to "show off" a little now and then.
____	____	4.	When in a group of people I usually do what the others want rather than make suggestions.
____	____	5.	Several times a week I feel as if something dreadful is about to happen.
____	____	6.	There's no use in doing things for people; you only find that you get it in the neck in the long run.
____	____	7.	A person who doesn't vote is not a good citizen.
____	____	8.	I have very peculiar and strange experiences.
____	____	9.	My daily life is full of things that keep me interested.
____	____	10.	When a person "pads" his income tax report so as to get out of some of his taxes, it is just as bad as stealing money from the government.
____	____	11.	It's a good thing to know people in the right places so you can get traffic tags, and such things, taken care of.
____	____	12.	I doubt whether I would make a good leader.
____	____	13.	When I was going to school, I played hooky quite often.
____	____	14.	It is hard for me to start a conversation with strangers.
____	____	15.	I sometimes pretend to know more than I really do.
____	____	16.	It's no use worrying my head about public affairs; I can't do anything about them anyhow.
____	____	17.	As a child, I used to be able to go to my parents with my problems.
____	____	18.	Women should not be allowed to drink in cocktail bars.
____	____	19.	When someone does me a wrong, I feel I should pay him back if I can, just for the principle of the thing.
____	____	20.	I seem to be about as capable and smart as most others around me.
____	____	21.	I find it hard to keep my mind on a task or job.
____	____	22.	I liked school.
____	____	23.	A windstorm terrifies me.
____	____	24.	I would disapprove of anyone's drinking to the point of intoxication at a party.

TRUE	FALSE		
____	____	25.	Sometimes I cross the street just to avoid meeting someone.
____	____	26.	Maybe some minority groups do get rough treatment, but it's no business of mine.
____	____	27.	It is very hard for me to tell anyone about myself.
____	____	28.	We ought to worry about our own country and let the rest of the world take care of itself.
____	____	29.	When I get bored I like to stir up some excitement.
____	____	30.	I usually feel nervous and ill at ease at a formal dance or party.
____	____	31.	I have at one time or another in my life tried my hand at writing poetry.
____	____	32.	Most of the arguments or quarrels I get into are over matters of principle.
____	____	33.	Once a week or oftener I feel suddenly hot all over, without apparent cause.
____	____	34.	As long as a person votes every four years, he has done his duty as a citizen.
____	____	35.	I must admit that I often do as little work as I can get by with.
____	____	36.	I like to be the center of attention.
____	____	37.	I would like to see a bullfight in Spain.
____	____	38.	I am fascinated by fire.
____	____	39.	I can be friendly with people who do things which I consider wrong.
____	____	40.	I have no dread of going into a room by myself where other people have already gathered and are talking.
____	____	41.	When in a group of people I have trouble thinking of the right things to talk about.
____	____	42.	I set a high standard for myself and I feel others should do the same.
____	____	43.	School teachers complain a lot about their pay but it seems to me that they get as much as they deserve.
____	____	44.	I was a slow learner in school.
____	____	45.	I am likely not to speak to people until they speak to me.
____	____	46.	I do not dread seeing a doctor about a sickness or injury.
____	____	47.	I think I would like to drive a racing car.
____	____	48.	It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things.
____	____	49.	I seldom or never have dizzy spells.
____	____	50.	It is all right to get around the law if you don't actually break it.
____	____	51.	I have a tendency to give up easily when I meet difficult problems.
____	____	52.	I would like to wear expensive clothes.

TRUE	FALSE		
____	____	53.	Every citizen should take the time to find out about national affairs, even if it means giving up some personal pleasures.
____	____	54.	I like parties and socials.
____	____	55.	My parents have often disapproved of my friends.
____	____	56.	I should like to belong to several clubs or lodges.
____	____	57.	I never make judgments about people until I am sure of the facts.
____	____	58.	I am certainly lacking in self-confidence.
____	____	59.	When I work on a committee, I like to take charge of things.
____	____	60.	I would rather go without something than ask for a favor.
____	____	61.	I am quite often not in on the gossip and talk of the group I belong to.
____	____	62.	In school my marks in deportment were quite regularly bad.
____	____	63.	I can remember "playing sick" to get out of something.
____	____	64.	I would be ashamed not to use my privilege of voting.
____	____	65.	The most important things to me are my duties to my job and to my fellowman.
____	____	66.	Once in a while I laugh at a dirty joke.
____	____	67.	Before I do something I try to consider how my friends will react to it.
____	____	68.	If given the chance, I would make a good leader of people.
____	____	69.	I enjoy a race or game better when I bet on it.
____	____	70.	I have often found people jealous of my good ideas, just because they had not thought of them first.
____	____	71.	I very much like hunting.
____	____	72.	I have frequently found myself, when alone, pondering such abstract problems as freewill, evil, etc.
____	____	73.	I have never been in trouble with the law.
____	____	74.	It makes me angry when I hear of someone who has been wrongly prevented from voting.
____	____	75.	At times I have worn myself out by undertaking too much.
____	____	76.	I love to go to dances.
____	____	77.	People have a real duty to take care of their aged parents, even if it means making some pretty big sacrifices.
____	____	78.	I usually expect to succeed in things I do.
____	____	79.	People pretend to care more about one another than they really do.
____	____	80.	It is hard for me to find anything to talk about when I meet a new person.
____	____	81.	I like to read about history.
____	____	82.	A person does not need to worry about other people if only he looks after himself.

TRUE	FALSE		
____	____	83.	We ought to pay our elected officials better than we do.
____	____	84.	I can honestly say that I do not really mind paying my taxes because I feel that's one of the things I can do for what I get from the community.
____	____	85.	I am so touchy on some subjects that I can't talk about them.
____	____	86.	I am a good mixer.
____	____	87.	When a man is with a woman he is usually thinking about things related to her sex.
____	____	88.	When prices are high, you can't blame a person for getting all he can while the getting is good.
____	____	89.	In school I found it very hard to talk before the class.
____	____	90.	I usually feel that life is worthwhile.
____	____	91.	We ought to let Europe get out of its own mess; it made its bed; let it lie in it.
____	____	92.	I think most people would lie to get ahead.
____	____	93.	I am bothered by people outside, on streetcars, in stores, etc., watching me.
____	____	94.	Sometimes I rather enjoy going against the rules and doing things I'm not supposed to.
____	____	95.	I have very few quarrels with members of my family.
____	____	96.	I have no fear of water.
____	____	97.	If I get too much change in a store, I always give it back.
____	____	98.	I like to read about science.
____	____	99.	It is hard for me to act natural when I am with new people.
____	____	100.	I have never done anything dangerous for the thrill of it.
____	____	101.	As a youngster, I was suspended from school one or more times for cutting up.
____	____	102.	I think I would like to belong to a motorcycle club.
____	____	103.	I feel that I have often been punished without cause.
____	____	104.	I would like to be an actor on the stage or in the movies.
____	____	105.	At times I have a strong urge to do something harmful or shocking.
____	____	106.	I don't seem to care what happens to me.
____	____	107.	Police cars should be especially marked so that you can always seem them coming.
____	____	108.	I am afraid to be alone in the dark.
____	____	109.	I have nightmares every few nights.
____	____	110.	I have a great deal of stomach trouble.
____	____	111.	I have been afraid of things or people that I knew could not hurt me.
____	____	112.	Any man who is able and willing to work hard has a good chance of succeeding.
____	____	113.	I hardly ever feel pain in the back of the neck.

TRUE	FALSE		
_____	_____	114.	When I was a child, I didn't care to be a member of a crowd or gang.
_____	_____	115.	When I am feeling very happy and active, someone who is blue or low will spoil it all.
_____	_____	116.	Everything tastes the same.
_____	_____	117.	Much of the time my head seems to hurt all over.
_____	_____	118.	My people treat me more like a child than a grown-up.
_____	_____	119.	I am made nervous by certain animals.
_____	_____	120.	Some of my family have habits that bother and annoy me very much.
_____	_____	121.	No one seems to understand me.
_____	_____	122.	I dream frequently about things that are best kept to myself.
_____	_____	123.	I have reason for feeling jealous of one or more members of my family.
_____	_____	124.	There are certain people whom I dislike so much that I am inwardly pleased when they are catching it for something they have done.
_____	_____	125.	My mouth feels dry almost all the time.
_____	_____	126.	When I am cornered, I tell that portion of the truth which is not likely to hurt me.
_____	_____	127.	Life usually hands me a pretty raw deal.
_____	_____	128.	I have one or more bad habits which are so strong that it is no use fighting against them.
_____	_____	129.	I am bothered by acid stomach several times a week.
_____	_____	130.	I get all the sympathy I should.
_____	_____	131.	I have felt embarrassed over the type of work that one or more members of my family have done.
_____	_____	132.	I have often felt guilty because I have pretended to feel more sorry about something than I really was.
_____	_____	133.	The things some of my family have done have frightened me.
_____	_____	134.	My skin seems to be unusually sensitive to touch.
_____	_____	135.	I am troubled by attacks of nausea and vomiting.
_____	_____	136.	I would have been more successful if people had given me a fair chance.
_____	_____	137.	Almost every day something happens to frighten me.
_____	_____	138.	My family has objected to the kind of work I do or plan to do.
_____	_____	139.	There seems to be a lump in my throat much of the time.
_____	_____	140.	Every family owes it to the city to keep their sidewalks cleared in the winter and their lawn mowed in the summer.
_____	_____	141.	I like science.

OMAT STUDY
CONFIDENTIAL

SCHOOL OF LABOR & INDUSTRIAL RELATIONS
MICHIGAN STATE UNIVERSITY
DR. NOSOW

INSTRUCTOR INTERVIEW

NAME OF TRAINEE_____ COURSE COMPLETED_____

NAME OF INSTRUCTOR_____ DROPPED OUT_____

No. of weeks completed_____

Reason for dropping out_____

_____

*ABILITY RATING: A__ B__ C__ D__ F__

Comments:

*PERSONALITY RATING: A__ B__ C__ D__ F__ (for getting along on the job)

Comments:

Is trainee working now? Yes___ No___

IF YES - Name of employer and location:_____

_____

What do you think are his chances for success and why?

* On a rating scale of A-B-C-D-F (fail), how would you rate the trainee?

APPENDIX F

The following items constitute the Flexibility (Fx) Scale of the California Psychological Inventory and are presented for comparative purposes.

1. I often wish people would be more definite about things.
2. It is annoying to listen to a lecturer who cannot seem to make up his mind as to what he really believes.
3. I find that a well-ordered mode of life with regular hours is congenial to my temperament.
4. It is hard for me to sympathize with someone who is always doubting and unsure about things.
5. I often start things I never finish.
6. Our thinking would be a lot better off if we would just forget about words like "probably," "approximately," and "perhaps."
7. I never make judgements about people until I am sure of the facts.
8. A strong person will be able to make up his mind even on the most difficult questions.
9. For most questions there is just one right answer, once a person is able to get all the facts.
10. I like to have a place for everything and everything in its place.
11. I don't like to work on a problem unless there is the possibility of coming out with a clear-cut and unambiguous answer.
12. It bothers me when something unexpected interrupts my daily routine.
13. Most of the arguments or quarrels I get into are over matters of principle.
14. I am known as a hard and steady worker.
15. I don't like things to be uncertain and unpredictable.
16. Once I have my mind made up I seldom change it.
17. I am in favor of a very strict enforcement of all laws, no matter what the consequences.
18. I always see to it that my work is carefully planned and organized.
19. The trouble with many people is that they don't take things seriously enough.
20. I set a high standard for myself and I feel others should do the same.
21. People who seem unsure and uncertain about things make me feel uncomfortable.
22. I think I am stricter about right and wrong than most people.

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