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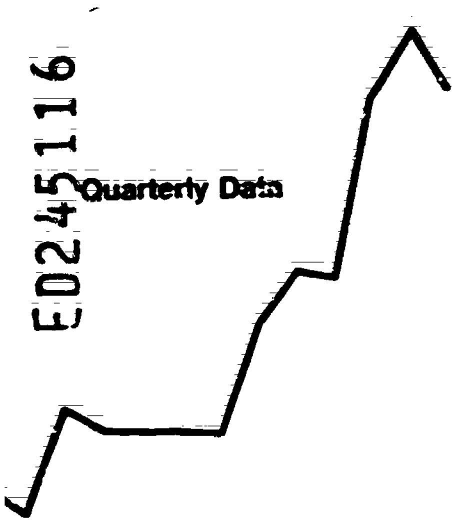
ABSTRACT

A study analyzed the explicit and implicit behavior of employers in their assessment of young job applicants for entry-level clerical, retail trade, and machine trade jobs. In order to determine the influence of applicants' education and skills on employability assessments made by employers, the researchers analyzed almost 600 mail questionnaires that were returned by employers from across the nation. Based on this analysis, the researchers formulated a series of recommendations aimed at youth, parents, and guidance counselors; employers; and school administrators and policymakers. The researchers suggested that students contemplating careers in areas such as trades or business participate in experiential or cooperative educational programs, if given the opportunity. Employers were cautioned to avoid allowing their own personal characteristics to influence their assessment of individual job applicants and were urged to continue to check references provided by job applicants. Finally, the researchers urged school administrators and policymakers to realize the extent of the emphasis that employers place on grades as a sign of productivity and to revise existing curricula to include training in job search skills and in business organization and management principles. (Appended to this report are exhibits of materials used in employer hiring decisions, the survey instrument, and survey response frequencies. (MN)



SELECTING YOUNG WORKERS: THE INFLUENCE OF APPLICANTS' EDUCATION AND SKILLS ON EMPLOYABILITY ASSESSMENTS BY EMPLOYERS

FINAL TECHNICAL REPORT

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
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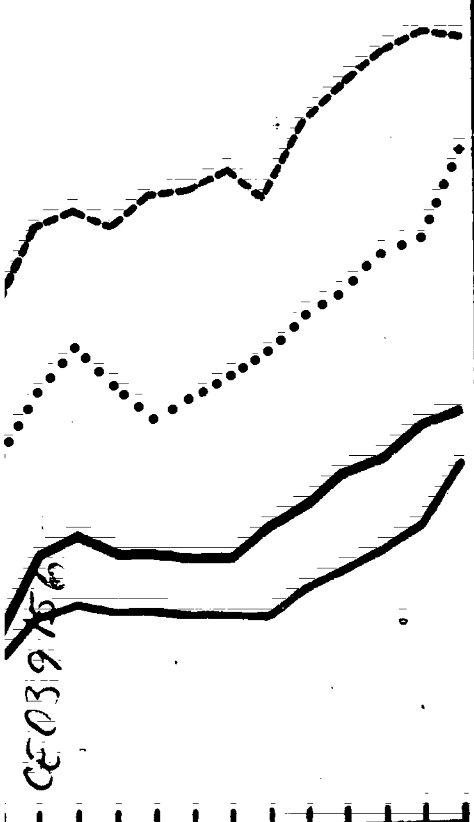

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Final Technical Report

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TABLES OF CONTENTS

TABLE OF CONTENTS--continued

LIST OF TABLES

LIST OF FIGURES

LIST OF EXHIBITS

FOREWORD

An understanding of how youth develop employability skills and how firms make hiring decisions is needed to address the social concerns of high levels of youth unemployment, high job turnover among youth, and the specter of growing skill imbalance between job requirements and job seekers as the nation enters an age of high technology. This study analyzes the explicit and implicit behavior of employers in their assessment of youthful job applicants for entry-level clerical, retail trade, and machine trade jobs. As tradeoffs between various educational and work experience attributes are gauged, youth can make more informed decisions about investments in time and resources for developing employability skills.

Specifically, the study addresses questions such as the following: (1) What is the relative importance of the attributes (signals) that appear in a typical job application? (2) How valuable is 1 or 2 years of postsecondary education versus a high school diploma? (3) Of what value, in terms of being hired, is a vocational education major versus a work experience program versus a cooperative education program? (4) How valuable is part-time work experience in high school versus no work experience? (5) Do employers value eligibility for subsidies such as TJTC in making hiring decisions?

This report presents the analyses of data collected by means of a survey mailed to employers from across the nation who reviewed and rated simulated applications. We greatly appreciate the time and the insights that these very busy men and women contributed. The research would not have been possible without their cooperation and assistance.

We wish to express our gratitude to the National Institute of Education for sponsorship of this study and to Ronald Bucknam, the project officer, for his guidance and support. We also wish to thank Robert M. Peterson, Far West Laboratory, John Barron, Professor of Economics, Purdue University, Robert Campbell, Allen Wiant, and John Bishop of the National Center for Research in Vocational Education for their insightful comments and critiques of this report.

Recognition is due to Kevin Hollenbeck for directing the study; Bruce Smith, Graduate Research Associate, for data processing and analysis; Judy Balogh for editorial assistance; and Cathy Jones for her expert typing and preparation of the report.

Robert E. Taylor
Executive Director
National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

The process of employability development of youth, defined as the activities which individuals undertake that affect their career or occupational choice, or that enhance their chances of gaining employment in the occupations of their choice, involves making decisions about investments of time or resources. Youths could hold part-time jobs while in school which means less time devoted to academic achievement or extracurricular activities. They could decide to enroll in a vocational program in a junior or community college after graduation from high school. They could enter the labor market directly from high school. The implications these kinds of decisions have for future earnings are important, but also important are the implications they have for the probability of getting a job.

Relatively little research has been done on how the effects of personal characteristics, basic or vocational skill levels, and job experience affect the probability of getting a job. The purpose of this study is to describe and to analyze how employers respond to information presented to them by young job seekers, when making hiring decisions for entry-level jobs. Entry-level jobs studied here were limited to positions that do not require a baccalaureate degree and were in clerical, retail sales, and machine trades occupations. The approach taken in this study was to observe responses in a simulated hiring setting. Employers across the United States were sent a job description and a set of fictitious application forms. The information on the application forms was intended to represent real applicants for such a job.

The empirical analyses of the data that was collected measure the relative weight that employers place on various attributes when making applicant assessments and the relative weight of the influence of employers' and firms' characteristics on those assessment. For example, how much higher or lower is an applicant with 2 years of relevant postsecondary vocational training but no job experience rated, than an applicant with 2 years of relevant job experience but no postsecondary training? The ratings of the job applicant is dependent on the applicants' personal attributes as provided on the application form, on characteristics of the job and firm, and on the characteristics of the employers that perform the rating exercise. Characteristics of the job, firm, and rater address questions such as will the employability rating of a youthful job applicant be higher or lower in a unionized firm? If so, by how much? How much higher or lower do members of a personnel department rate youthful job applicants as compared to line supervisors or other company personnel?

Among the findings were that an applicant's high school cumulative grade point average was one of the strongest factors used by employers in rating applicants, having no part-time work experience was a serious disadvantage for a job seeker, employers strongly favored relevant part-time jobs and work experience at large, non-public organizations, and finally, an applicant's skill level was also a significant correlate of employability ratings. Opinions expressed by employers seemed to indicate that the three major problems encountered with youthful applicants and workers were: (1) poor work habits and work maturity, (2) poor job search skills, and (3) poor attainment of basic skills.

Specific suggestions for schools to pursue implied by the study include instruction in job search skills and in business practices and management. A number of employers provided specific illustrations of situations where deficiencies in basic skills adversely affected the job performances of young workers, and advocated more emphasis on basic skills in schools. But employers seemed most disturbed by the poor work habits and maturity of youthful job applicants which suggests that schools should be considering how and whether their programs can improve these aspects of employability. Results pertinent to occupationally specific vocational education and employer/school joint efforts such as work/learning or service programs indicate that these aspects of learning are well-received and should be encouraged.

1. INTRODUCTION

When evaluating the benefit of education and training to young people, analysts typically use earnings or income as the appropriate outcome measure. Other outcomes of interest are the nonpecuniary benefits of a job, such as employment security, working conditions, training opportunities, and occupational prestige. The labor market is the mechanism that allocates individuals with certain skills to jobs with particular pecuniary and non-pecuniary characteristics. Looking out for themselves, job seekers try to maximize their earnings, employment security, working conditions, and other nonpecuniary benefits. Looking out for their firms' interests, employers try to find the most productive workers. But the labor market is not a black box that operates arbitrarily. It is the systematic decision-making process used by millions of employers and job seekers. Once employment decisions have been made, the earnings and other outcomes follow. Thus the argument can be made for another outcome measure of training or schooling: how individuals fare in the job search process.

The process of employability development, defined as the activities individuals undertake that affect their career or occupational choice, or that enhance their chances of gaining employment in the occupations of their choice, involves making decisions about investments of time or resources. Youths could hold part-time jobs while in school, which means less time devoted to academic achievement or extracurricular activities. They could decide to enroll in a vocational program in a junior or community college after graduation from high school. They could decide to enter a 4 year college. They could enter the labor market directly from high school. The implications these kinds of decisions have for future earnings are important, but also important is the implications they have for the probability of getting a job. For example, the returns to intensive athletic participation, while a youth, are no doubt extremely high for professional athletes, but the probability of that payoff is slight.

Despite its seeming importance, relatively little research has been done on how personal characteristics, basic or vocational skill levels, and job experience affect the probability of getting a job. The purpose of this study

is to describe and to analyze how employers respond to information presented to them on application forms and in interviews and how this affects hiring decisions for entry-level jobs. Entry-level jobs studied here are limited to positions that do not require a baccalaureate degree. The approach taken in this study was to observe responses in a simulated hiring setting. Employers across the United States were sent a job description and were asked to rate a set of mock application forms. The information on the application forms was intended to represent real applicants for such a job.

The empirical analyses of the data collected measure the relative weight that employers place on various attributes when making applicant assessments, as well as the relative weight of the influence of employers' and firms' characteristics on those assessments. For almost all the attributes being studied, there are a priori expectations about the direction of the relationship between attribute and assessment. For example, employers prefer applicants with previous relevant work experience to those whose work experience has no application to the job.

The quantitative analyses substantiate (or in some cases, question) the existence of, or direction (sign) of, such relationships, but further the analyses determine the relative magnitudes of the effects. How much higher or lower is an applicant with 2 years of relevant postsecondary vocational training but no job experience rated in comparison to another applicant with 2 years of relevant job experience but no postsecondary training? The approach is to use multivariate regression to estimate the structure and relative magnitudes of the function that employers use implicitly in rating job applicants. The rating of the job applicant is modeled as dependent on the applicant's personal attributes as provided on the application form, on characteristics of the job and firm, and on the characteristics of the employers who perform the rating exercise. The regressions yield parameter estimates, which indicate the effects of the (systematically) manipulated attributes, such as work history, type of high school program, and vocational skills on the rating of applicants.*

*It is important to note that the analysis is confined to the assessment of application forms. While this stage of the employment process is important, employers base their hiring decisions on information from other sources, such as interviews and personal references. The focus of the study may therefore bias the importance of certain factors in actually getting a job.

In addition to the quantitative data collected in the survey, employers were given with the opportunity in an open-ended question to "tell their stories" about hiring youth and employability development within schools. Responses to this question offered employers a chance to share their perceptions about the quality of job applicants and new hires, how the latter perform on the job, and how schools have influenced the employability development of youth. For example, when selecting an employee with particular school or work experience, which qualities relating to unacceptable performance on the job or high turnover rates, do the employers believe they are avoiding? What aspects of the youth's performance on the job influence his or her probability ofbeing promoted, laid off, or fired? What problems seem to lead to a youth's decision to resign? These qualitative data provide a corroborative source of information to the empirical analysis about employers' thought and reasoning processes when hiring youthful workers.

It should be noted that this simulation study of employer hiring decisions is the second stage of a multiyear project. In the first year of the project, numerous Columbus-area employers came to the National Center for Research in Vocational Education and participated in a simulation of the hiring setting by reviewing computer-generated application forms and videotapes of staged job interviews (see Hollenbeck 1984). The final year of the project will involve analysis of personnel files from actual firms in order to gauge the validity of the responses to simulated applications and to determine to what extent the hiring criteria that are used are justified by the actual performance of the people hired.

Chapter 2 of this report discusses related research in the fields of labor economics and education on employer hiring behavior. In chapter 3, the methods used to develop the applications and the survey procedures for the present study are discussed. Chapter 4 gives background data about the employers and their firms. The results of the statistical analyses of the applicant rating process are presented in chapter 5. An important part of the study was reviewing and analyzing the answers to the open-ended question about hiring and employing youth and the influence of schools on employability development. Chapter 6 provides a systematic recounting of employers' responses and opinions. Finally, chapter 7 draws insights and implications from the research for three key groups: youth, employers, and school personnel.

2. RELATED RESEARCH

The social concerns that motivated this research are high levels of youth unemployment, high job turnover among youth, and growing skill imbalances between job requirements and job seekers as the nation enters an age of high technology.* An understanding of how youth develop employability skills and how firms make hiring decisions is needed to address these problems. Recent studies have used the methodology of surveying employers to garner evidence about the influence of the educational system on the work force. These studies can be divided into surveys that collected data specific to vocational education and surveys that collected more general data about the transition from school to work and the influence of educational practices on that transition. A sampling of those studies specifically concerned with vocational education is provided here; however, more emphasis is placed on the research that has been conducted on general hiring practices.

One study of employers' opinions about vocational education and its graduates is illuminating. The Utah Vocational Study Commission (1979) reports the following from a survey of Utah employers:

- Eighty percent of employers felt vocational training programs train students in skills that can be used in their company; 91 percent would give preference to a vocationally trained person versus a "walk-in" if their skills matched those needed.
- Sixty-four percent rated the overall work habits (e.g., accuracy, productivity, judgement) of vocational graduates as above average.
- Eighty percent of employers felt that workers who received their vocational training in high schools were moderately to very well prepared in computation skills; 76 percent, in communication skills.

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*Considerable debate attends the question of the impact of technological advances on skill requirements of the work force. Medoff (1982) and Choate (1982) suggest that demand for skilled labor is outstripping the supply. Rumberger (1984), Levin and Rumberger (1983), Bluestone and Harrison (1982), and Wilms (1983) suggest that high technology is reducing the skill requirements of labor.

Unfortunately, little information was provided in this report on the sampling of employers, so the generalizability of these results is uncertain.

Dun and Bradstreet (1977) report findings from a sample of Virginia employers. Their findings may be characterized as perhaps not as positive as the previous study. Highlights for this report are as follows:

- Employers rated the interpersonal relations, work motivation, and job skills of vocational education graduates relatively higher than reading skills, mathematical skills, or verbal skills. Among respondents who rated vocational education graduates on mathematical skills, over 44 percent gave "fair" or "poor" ratings.
- A majority of respondent firms felt that vocational education is either definitely important or sometimes important for proper job performance.
- Two-thirds of all respondents felt that guidance counselors in high schools do not have sufficient knowledge and understanding of the respondents' businesses to give career advice to students.

The response rate to this survey was relatively low, so it may have limited generalizability, even in Virginia. Furthermore, these findings are somewhat dated and the survey did not address the question of hiring preferences, but was concerned with workers already hired.

In a national survey of over 800 manufacturers, Nunez and Russell (1982) report that—

- The most frequent grade awarded to secondary vocational education (on a scale of A, B, C, D, and fail) by manufacturers was a "C"; and the most frequent grade awarded to postsecondary vocational education was a "B";
- Over half of the respondents indicated that their company benefited from vocational education in terms of reduced training costs or reduced training time; and
- 85 percent of manufacturers prefer hiring vocational graduates rather than nonvocational graduates, other things equal, for a job requiring less than a 4-year college degree.

Bishop (1983) estimated the benefits to employers of hiring vocational education graduates using a geographically dispersed sample of over 2,000 employers. The study demonstrated that relevant vocational training resulted in higher remuneration for the employee, but also higher profitability for the employer in terms of reduced training costs and higher productivity.

The general tenor of reports from employer surveys directed at the vocational education system and its graduates may be characterized as somewhat positive toward that system. While deficiencies were uncovered, particularly in terms of academic skills, the employers who were interviewed tended to report a preference for hiring workers trained through the vocational education system. Surveys of employers that explored general hiring practices and that were not limited to vocationally trained employees were far less positive about schools and youthful applicants.

Richards (1980) presents the results of a Research for Better Schools (RBS) survey of 27 service clubs (e.g., Kiwanis) in the northeastern United States. The survey sought to determine how significant certain employee attributes are from the employers' viewpoint. Based on employer rankings, the top five successful transition skills were (1) positive attitude (concern for the organization and its products; positive approach to task assigned); (2) dependability (good attendance and punctuality; the acceptance of responsibility; accountability); (3) communication skills; (4) basic academic skills; and (5) interaction with fellow workers. Less important were craftsmanship, interaction with superiors, productivity, and knowledge of the world of work.

Respondents ranked areas of job applicant deficiency in an inverse order with importance of the skill. Employees were ranked as most deficient in the area of dependability, followed by positive attitude, communication skills, productivity, basic academic skills, craftsmanship, interaction with superiors, and finally, interaction with fellow workers.

Researchers at the Far West Laboratory have conducted interviews with employers in the San Francisco area to investigate employment practices with entry-level workers. Chatham (1982) indicates that the characteristics that made a critical difference in hiring as reported by a small sample of corporations are the following:

- Ability to converse/speak English well
- Appearance/presentability
- Stable work experience/not a job-hopper
- Self-confidence/presentation of self
- Interviewing skills
- Desire to learn

Peterson (1983) reports on the results from a larger sample. The three most important factors in making hiring decisions (out of a list of 16) were (1) seemed serious about work, eager to get the job, (2) seemed bright and alert, and (3) seemed courteous and personable. The three least important factors were (16) a record of achievement in school, (15) was recommended by someone reliable, and (14) a record of prior work experience. Ability in reading, writing, and computation were ranked 9th, 13th, and 10th, respectively. The study further shows that the most important factor in evaluating prior work experience is evidence that the applicant has experience or skills directly related to the job to be done. Of less importance is evidence that the applicant is not a job-hopper or that the applicant can conform to the rules and hours of the workplace.

The respondents were shown 14 functions that might be performed by schools through grade 12 and were asked to assign priorities and to rate the performance of schools in performing each of the tasks. The highest priorities were judged to be (1) to develop competency in reading, writing, and computation and (2) to develop competency in speaking and listening. While the ratings for effectiveness were low for all functions, schools were adjudged to be most effective in (1) developing competency in relating to other people, (2) preparing students to find self-fulfillment in pursuits other than paid employment, (3) developing specific job skills geared to particular occupations, and (4) developing competency in reading, writing, and computation. The greatest discrepancies between priority and effectiveness were for these functions:

- Develop values, attitudes, and habits generally useful in obtaining and succeeding in paid employment.
- Help students learn to accept responsibility for their own decisions and actions.
- Develop competency in speaking and listening.
- Prepare students with realistic expectations of what they will actually find in the working world.

Wilms (1983) surveyed 172 firms in the Los Angeles area. These employers emphasized work habits and positive attitude as the most important attributes in getting and succeeding in an entry-level job. He notes:

> When asked to indicate their reasons for rejecting job applicants, employers were most likely to mention bad attitudes, followed by lack of experience and poor job skills. Only 13 percent said that poor abilities in reading, writing, and arithmetic were the main reasons for rejection. (p. 2)

The employers who responded to this survey professed to a credentialing or sorting behavior. Thirty-six percent indicated a preference for hiring workers who had completed postsecondary training into entry-level jobs, but only 9 percent required such credentials. To most employers, the value of educational credentials (particularly at the postsecondary level) was to ensure that the applicant has good work habits and positive attitudes.

Miguel (1982) presented to a sample of employers from a number of urban areas across the country a list of 22 items and asked them to indicate all items that would be important in narrowing a pool of 10 applicants for a job to the 3 best candidates, and those items that be most critical in making a final choice among the 3 best candidates. Table 1 presents a rank ordering of the responses. It is interesting to note that educational performance categories (levels, grades, and test scores) were ranked as the three out of the four most critical items in making the final selection among the three best candidates, but were relatively less important in the initial screening of applicants. In the screening process, employers reported looking at signals such as recommendations from past employers, appearance and accuracy of the application form, reasons for leaving prior jobs, and criminal records. Specific occupational skills and vocational training in schools were only moderately important in either narrowing the applicant pool or making the final selection.

Hollenbeck (1984) found slightly different results in data collected from employers in the Columbus, Ohio area. As in the Miguel study, signals such as reasons for leaving previous job and kinds of duties performed in previous jobs were important in screening applicants. They were mentioned by employers almost 100 percent of the time. Less than three-fourths of the respondents indicated that the applicant's educational level was important in screening applications (making it 8th of a list of 25 items) and less than half reported school grades as important (14th in the list). Unlike Miguel's study, however, these educational attributes were also relatively unimportant

TABLE 1

RANK ORDERING OF ITEMS IMPORTANT IN NARROWING AN APPLICANT POOL AND CRITICAL IN MAKING A FINAL SELECTION

Item	Rank in Terms of Importance for Narrowing an Applicant Pool	Rank in Terms of Making a Final Selection
Recommendations from past employers	1	6
Appearance and accuracy of application form	1	11
Reasons for leaving prior jobs	3	12
Educational level (e.g., completed high school)	4	1
Criminal record	5	16
Vocational training received in school	6	13
School grades	7	2
Applicant's age	8	14
Test scores	9	3
Personality and attitude	10	4
Personal appearance	11	5
Kinds of duties performed in past jobs	12	10
Kinds of jobs held	13	14
Specific occupational skills	14	7
Mastery of basic academic skills	15	8
Number of jobs held	16	17
Skill levels (e.g., types 45 wpm)	17	9
Vocational training received in co-op programs	18	18
Gaps in employment	19	19
Vocational training received in CETA	20	22
Driver's license	21	20
Bonding	22	21

Source: Miguel (1982).

in making final decisions about the best candidate. Also, unlike the results from Miguel's study, specific occupational skills (such as typing speed) were very important in narrowing applicant pools and in making the final hiring decisions.*

All of these studies of employers' reactions to youth and hiring behavior illustrate that numerous factors mediate the hiring process, of which education variables are only a small set. While there is some disagreement in these studies as to the importance of vocational skills and educational credentials, the studies are consistent in emphasizing the importance of employability skills--positive attitude, good work habits, interpersonal abilities, neatness.

The background to this research, then, can be summarized as follows:

- Studies indicate that vocational training in schools most likely confers some (small) remunerative and hiring advantages to youthful job applicants, at least in some occupations.
- Studies further show that basic skill attainment and educational background are important hiring criteria, at least in some stages of the hiring process, but they are attributes that are less important to employers than characteristics such as attitudes, work habits, neatness, and so forth.

None of the studies have attempted to assess quantitatively the trade-offs between various educational, work experience, and skill characteristics of job applicants on employability as perceived by potential employers. This is the objective of the present study.

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*The Hollenbeck (1984) study focused on clerical, retail sales, and machine trades occupations. For the first and last of these, specific skills are used in the workplace. Miguel (1982) examined a more general range of occupations.

3. METHODOLOGY

3.1 Introduction

In the first phase of the research program on employer hiring decisions, various Columbus-area employers came to the National Center for Research in Vocational Education and participated in employer hiring seminars. In these seminars, simulated application forms were rated, videotaped interview segments were viewed and rated, data about the respondents were collected, and discussion sessions were held. To examine in more detail some of the findings of that study, a survey of a geographically dispersed sample of employers was fielded. The data collection involved having the respondents review application forms and rate the applicants' employability skills, respond to a set of questions about themselves and their companies, and (optionally) present their general comments about experiences hiring youth for entry-level jobs and about employability skills taught in schools. Thus, this survey did not allow simulations of interviews and only allowed limited qualitative data collection as compared to the Columbus data collection. It did, however, provide for a larger sample for the analysis as well as for regional variation.

In this chapter of the report, the survey procedures are detailed. The sampling strategy is discussed first. For the most part, the sample was judgmentally selected in a two-stage process. In the first stage, several cities and areas were selected for inclusion in the survey, and in the second stage, employers within those areas were selected according to industry. After discussing the sampling, the chapter turns to a discussion of the development of the questionnaire and the survey techniques that were used. Finally, survey response rates and an analysis of nonresponse are presented.

3.2 Sample Selection

The sample selection process involved two levels of decisions--first the geographical representation was determined; second, the firms that comprised the sample in each area were chosen. The primary criterion used in the selection of the cities and areas was geographic dispersion. As a secondary criterion, some variation in the population size was introduced. Finally, the availability of an industrial directory or chamber of commerce membership list was used as a criterion to choose areas.

As a result of this process, 15 sites were identified. These cities/areas are listed in table 2.

TABLE 2

CITIES AND AREAS COMPRISING SAMPLE FOR STUDY

Boston, MA	Cleveland, OH
Springfield, MA	Detroit/Flint, MI
Philadelphia, PA and surrounding counties	Chicago area, IL
State of Delaware	East St. Louis, IL
Baltimore, MD	Houston, TX
Virginia Peninsula	Southern CA
Columbus, OH	Seattle, WA
Toledo, OH	

For each of these sites, the industrial directory was purchased and firms in certain industries who were thought to hire a substantial number of entry-level workers in clerical, retail, or machine trade occupations were selected. When employment size was listed in the industrial directory, firms with less than 10 employees were excluded from the sample. The general rules used to decide whether to include a firm or not were: employers in durable manufacturing, some construction, and automobile maintenance and repair industries were sent machine trade applications; employers in wholesale and retail trade, some restaurant, and hotel sectors were sent retail trade applications; and employers in finance, insurance, and real estate and other service industries were sent clerical applications.

Table 3 shows the sample size by site and occupational groups.

TABLE 3

SAMPLE SIZE BY SITE AND OCCUPATION

	Clerical	Retail	Machine Trades	Total
Boston, MA	60	31	56	147
Springfield, MA	4	0	121	125
Philadelphia, PA	239	229	413	881
State of Delaware	162	156	115	433
Baltimore, MD	73	47	65	185
Virginia Peninsula	65	43	36	144
Columbus, OH	89	72	83	234
Toledo, OH	76	14	81	171
Cleveland, OH	49	45	15	109
Detroit/Flint, MI	408/49	178/4	247/55	833/108
Chicago area, IL	172	61	222	455
E. St. Louis, IL	7	0	38	45
Houston, TX	190	57	152	399
Southern CA	315	169	1,244	1,728
Seattle, WA	253	83	105	441
Total	2,211	1,189	3,048	6,448

3.3 Development of the Job Applications and Questionnaire

For many employers, the completed job application provides the initial information on the applicant's abilities, skills, and experiences. The employer's evaluation of the application's content in conjunction with the duties of the open job position determines which applicants are interviewed and, subsequently which are hired for the position. To simulate the employer's initial evaluation of prospective employees, job application information was generated that systematically varied the applicant's educational credentials and work experience. The overall structure and probabilities used to vary applicant characteristics are displayed in exhibit A-1 of appendix A.

Four general types of educational backgrounds were generated for the job applicants as follows:

- Type 1 - high school dropouts
- Type 2 - high school graduates
- Type 3 - one year of postsecondary schooling
- Type 4 - 2 years postsecondary schooling, program completers

Figures 1 and 2 provide examples of the type 1 and type 3 applicants.

As can be seen in the two figures, the data that were presented on the applications were the following:

- Age
- High school attended
- Major/program in high school
- Grade average in high school
- High school diploma
- Postsecondary school attended
- Major/program in postsecondary school
- Grade average in postsecondary school
- Diploma or degree from postsecondary school
- Work history (0-5 jobs)
  - --Employer
  - --Starting and ending date
  - --Position
  - --Duties
  - --Reason for leaving
- Typing speed (for clerical and retail sales)
- Machines operated (for machine trades)
- Referral source
- Eligibility for a Targeted Jobs Tax Credit

For the type 1 and 2 applicants, the age of the job seeker was randomly set to be 17, 18, or 19. For the types 3 and 4, age was set to be 19, 20, or 21. In the attempt to vary location and type of high school, three high schools were fictionalized: Central High School, a public, urban high school; Jeffersonville High School, a generic rural or suburban public high school; and St. Mary's High School, a private secondary school. The majors or programs of study in high school came from the following set:

APPLICANT #777

DATE OF BIRTH: 04/65

EDUCATIONAL RECORD

SCHOOL ATTENDED: Jeffersonville H.S.
MAJOR/PROGRAM: CO-OP Machine Trades
DATES OF ATTENDANCE: 9/79-6/81
GRADE AVERAGE: 2.25/4.00
DIPLOMA/DEGREE: no

POST SECONDARY SCHOOL ATTENDED:
MAJOR/PROGRAM:
DATES OF ATTENDANCE:
GRADE AVERAGE:
DIPLOMA/DEGREE:

WORK HISTORY

EMPLOYER: Fast Food Restaurant
EMPLOYED FROM: 04/81
TO: 05/83
POSITION: Food Service Worker
DUTIES: Prepared soft drinks, sandwiches, served food, cleaned/reset tables.
REASON FOR LEAVING: Left seeking a full-time job

EMPLOYER:
EMPLOYED FROM:
TO:
POSITION:
DUTIES:
REASON FOR LEAVING:

EMPLOYER:
EMPLOYED FROM:
TO:
POSITION:
DUTIES:
REASON FOR LEAVING:

EMPLOYER:
EMPLOYED FROM:
TO:
POSITION:
DUTIES:
REASON FOR LEAVING:

EMPLOYER:
EMPLOYED FROM:
TO:
POSITION:
DUTIES:
REASON FOR LEAVING:

MACHINES OPERATED:
Lathe, grinder, drill press, milling machine, boring mill, saw, shaper

REFERRAL SOURCE: Unknown/None

FOR OFFICE USE: 1. TESTED TYPING SPEED: N/A
2. ELIGIBLE FOR TJTC: yes

HIRING PRIORITY INDEX		
0 . . 50 . . 100 . . 150 . . 200		
WORST HIRED	AVERAGE HIRE	BEST HIRED

YOUR SCORE FOR APPLICANT

Figure 1. Sample job application for high school dropout applicant

APPLICANT #539

DATE OF BIRTH: 12/62

EDUCATIONAL RECORD

SCHOOL ATTENDED: St. Mary's H.S.	
MAJOR/PROGRAM: General	GRADE AVERAGE: 2.10/4.00
DATES OF ATTENDANCE: 9/77-6/81	DIPLOMA/DEGREE: yes
POST SECONDARY SCHOOL ATTENDED: Franklin County Community College	
MAJOR/PROGRAM: Machine Trades	GRADE AVERAGE: 2.97/4.00
DATES OF ATTENDANCE: 9/81-6/82	DIPLOMA/DEGREE: no

WORK HISTORY

EMPLOYER: Service Station	EMPLOYED FROM: 12/82
POSITION: Attendant	TO: 03/83
DUTIES: Attended gas pumps,helped mechanics,did clean up work.	
REASON FOR LEAVING: Was laid off	
EMPLOYER: Service Station	EMPLOYED FROM: 10/82
POSITION: Attendant	TO: 10/82
DUTIES: Attended gas pumps,helped mechanics,did clean up work.	
REASON FOR LEAVING: Quit	
EMPLOYER: Service Station	EMPLOYED FROM: 06/82
POSITION: Attendant	TO: 07/82
DUTIES: Attended gas pumps,helped mechanics,did clean up work.	
REASON FOR LEAVING: Quit	
EMPLOYER: Large Manufacturing Firm	EMPLOYED FROM: 11/81
POSITION: Machinist Helper	TO: 05/82
DUTIES: Helped skilled operator,stacked materials,did clean up work.	
REASON FOR LEAVING: Quit	
EMPLOYER: Fast Food Restaurant	EMPLOYED FROM: 06/81
POSITION: Food Service Worker	TO: 08/81
DUTIES: Prepare soft drinks,sandwiches,served food,cleaned/reset tables.	
REASON FOR LEAVING: Went back to school	

MACHINES OPERATED:

REFERRAL SOURCE: School Counselor

FOR OFFICE USE: 1. TESTED TYPING SPEED: N/A
2. ELIGIBLE FOR TJTC: no

HIRING PRIORITY INDEX	
0 . . 50 . . 100 . . 150 . . 200	
WORST HIRED / AVERAGE HIRE / BEST HIRED	

YOUR SCORE FOR APPLICANT

Figure 2. Sample job application for applicant with one year of postsecondary schooling

- General
- Office education
- Distributive education
- Machine trades
- College preparatory
- Cooperative Office Education
- Cooperative Distributive Education
- Cooperative Machine Trades
- Occupational Work Experience

The high school grade average was randomly chosen to lie between 1.40 and 3.60 on a 4.0 scale and was listed on the application in the following format: 2.69/4.00.

For the applicants with postsecondary schooling, one of three generic institutions was assigned. These were Franklin County Community College, intended to be a public institution; Lincoln Technical Institute, a public technical school; Acme Business College, a proprietary institution; and Acme Technical Institute, another private postsecondary school. Postsecondary majors were assigned from the following set:

- Marketing
- Clerical
- Machine Trades

Grade averages ranged from 2.00 to 3.50 on a 4.0 scale.

The algorithm used to assign the number and duration of jobs held while in school was rather complex. For the applicants with no postsecondary schooling (types 1 and 2), work histories were characterized as "steady," "intermittent," "summer only," or "none." For the type 3 and type 4 applicants (those who had some postsecondary schooling), a similar characterization was used, however, the job histories were broken down into high school experience and postsecondary experience. Thus there were 16 possible types of job histories, that were entitled "none-none," "none-steady," "steady-summers only," and so forth. The number of previous jobs ranged from 0 to 5, durations of a single job ranged from 1 month to 64 months, and total work experience ranged from 0 months to 68 months.

The set of previous employers, positions, and duties for each of the jobs on the application form are shown in table 4. The variance introduced was intended to allow analysis of causal factors such as whether or not previous employers were large or small establishments, public or private institutions, and whether or not the jobs that were held were relevant. The reasons for leaving prior jobs came from the following set:

- Was laid off
- Quit
- Was temporary job
- Left for better job
- Left to look for full-time job
- Went back to school

For the clerical and retail sales position, the applications reported a tested typing speed. These were assigned randomly over the range of 40 to 60 words per minute. For machine trades, the application listed a set of up to seven machines operated by the job seeker. This set was as follows:

- None
- Lathe
- Grinder
- Drill
- Milling machine
- Boring machine
- Saw
- Shaper

The referral sources that were assigned randomly were the Job Service, school counselor, advertisement/sign, unknown or no referral, and friends/acquaintance at firm. Finally, half of the applicants were listed as eligible for a Targeted Jobs Tax Credit (TJTC).

A job description was developed for each of three occupations--clerical, retail, and machine trades. Table 5 displays the job descriptions used for each type of job application. To obtain a measure of how the application content affects employer hiring decisions, employers were asked to compare the job description and application information and then provide a hiring score ranging from 0 to 200 points. The directions employers were given for rating the job applications were as follows:

TABLE 4

EMPLOYERS, POSITIONS, AND DUTIES USED IN SIMULATED APPLICATIONS

Employer	Position	Duties
Large manufacturing firm Small manufacturing firm	Office helper[a]	Filed records, sorted and delivered mail, answered phones
	Machinist helper[b]	Helped skilled operator, stacked materials, did cleanup work
County government office[a]	Office helper[a]	Filed records, sorted and delivered mail, answered phones
Large department store Boutique[a]	Sales helper	Stocked shelves, showed products to customers, put prices on goods
City hospital Fast-food restaurant	Food service helper	Prepared soft drinks, sandwiches, served food, cleaned and reset tables
Janitorial service[a] County government maintenance department[b]	Cleaner	Serviced restrooms, cleaned floors and windows, did minor repairs
Service station[b]	Attendant[b]	Attended gas pumps, helped mechanics, did cleanup work.

[a]Used only on clerical and retail sale applications.

[b]Used only on machine trades applications.

TABLE 5

JOB DESCRIPTIONS EMPLOYERS USED WHEN RATING DIFFERENT TYPES OF JOB APPLICANTS

Descriptions for Each Occupation					
Clerical		Retail		Machine Trades	
% of Time Required on Job	Job Tasks	% of Time Required on Job	Job Tasks	% of Time Required on Job	Job Tasks
50	Types invoices, letters, memoranda	75	Advises (sells) customers products; prepares sales slips, and uses cash register	50	Operates a basic machine; feeds parts into automatic machine and transports (conveys) parts to next operator
25	Answers phone				
25	General office duties--copy materials, deliver mail; maintain files	25	Stocks and tends counters and shelves; packs and unpacks items	25	Assists skilled operator
				25	Loads and unloads materials and cleans around work area

1. Review each job application independently and rate it as though you were going to fill a position similar to the one described above in your organization. If you would not hire a person because they seem overqualified, they should get a lower score than the one you would choose to hire.

2. Choose any score between 0 and 200 (e.g., 26, 72, 100, 128) based on the scale shown below:

HIRING PRIORITY INDEX			YOUR SCORE FOR APPLICANT
0 . . 50 . .100 . .150 . .200			
Worst Hired	Average Hire	Best Hired	

- 50 points represents the worst applicant you ever hired (as perceived at the time of hiring, NOT what the new hire's performance actually turned out to be)
- 100 points represents the average applicant you ever hired
- 150 points represents the best applicant you ever hired (as perceived at the time of hiring, NOT what the new hire's performance actually turned out to be)

3. Assume you are reviewing the applications in June 1983. We are not interested in determining the effects of sex or race on hiring decisions, so assume all of the hypothetical candidates have the same sex and race.

A total of 550 different application forms were developed. Each of the employers was randomly given a set of 11 applicants to rate. The set was comprised of two type 1 applicants (high school dropouts), five type 2 applicants (high school graduates), one type 3 applicant (one year of postsecondary schooling, no degree), and three type 4 applicants (2 years of postsecondary schooling, program completers). On average, each application form was reviewed by approximately eleven employers.

The questionnaire that was developed to accompany the application rating process is provided in appendix B. The instrument has seven major sections. First, data were collected about the particular respondents including age, education, sex, race, position, and duties within the firm. The second section concerned the characteristics of the firm such as employment size and age and unionization of the work force. Since hiring decisions at a firm are made within the context of the firm's personnel policies, considerable data about the establishment's hiring process were collected in the third section of the questionnaire. The fourth section focussed on the firm's training process. It was deemed important to collect data about the extent and type of training because the size of the firm's average investment in training may influence how careful it is in hiring.

Besides investigating the hiring decision behavior of firms, a second purpose of the study was to learn how youths fare in jobs once they are hired. To investigate this subject, sections V and VI of the questionnaire gathered information about several youths recently employed by the firm. In section V, individual and job characteristics such as age, education, sex, race, previous work experience, wages, and productivity ratings were gathered for two youths (chosen at random by the employer respondent) that had been hired within the previous 2 years (1 had subsequently been promoted and the other retained by the firm but not promoted). In section VI, similar characteristics were reported about 3 youth who were hired in the last two years, but who have been separated from the firm through a voluntary quit, a layoff, and a dismissal.

The final section of the questionnaire was comprised of an objective question about the preparation of youthful job applicants in certain academic subjects and an open-ended question about schools' influence on youths' employability skill development.

3.4 Survey Procedures and Response

3.4.1 Survey Procedures

The questionnaire and set of applications were mailed to the 6,448 employers between June 20, 1983, and July 20, 1983. The cover letter for the mailing is exhibit A-2 in appendix A. As of August 15, 1983, completed responses had been received from 426 employers, and there were 81 refusals or misaddresses that could not be resolved. Thus, there were approximately 5,950 nonrespondents that required follow-up efforts.

The first follow-up was a second copy of the questionnaire mailed in late August to a random sample of approximately 1,000 of the nonrespondents. These individuals were also contacted by telephone approximately 3 weeks later. Exhibit A-3 in appendix A provides the cover letter for the first follow-up mailing to this subsample of nonrespondents, and exhibit A-4 gives the script that the telephone callers used. At the same time that the questionnaire was mailed, the remaining 5,000 nonrespondents were mailed a letter requesting their response (but not a second questionnaire) and a return postcard. Exhibit A-5 provides a copy of that letter and postcard.

Twenty-eight percent of the nonrespondents who were telephoned indicated that they had not received the follow-up correspondence and requested yet another copy of the questionnaire. Four hundred and sixteen of the 4,970 employers (8.4 percent) returned postcards indicating that they would participate and needed another copy of the questionnaire either for themselves or someone else in their firm.

By October 1, another 166 responses had been received as a result of the phone calls and the follow-up mailing. This brought the total number of completed responses to 592; this set of data is used for the analysis reported in this document. With approximately 4,000 nonrespondents and some 2,000 questionnaires and application sets remaining from the initial printing, a second follow-up letter (exhibit A-6) and questionnaire were mailed to a randomly selected one-half of the employers who had not responded.

The survey procedures are summarized in figure 3. Note that the final disposition for each respondent has been categorized into 30 states. In the next section, the response rates to the survey in terms of these alternative dispositions are discussed.

3.4.2 Response*

With the receipt of 855 completed questionnaires, the overall response rate as of the date of this report is 13.3 percent. This is a reasonably high response rate for a mail survey, particularly considering the complexity of this survey. Table 6 provides counts of responses by area and occupation. The areas with the highest response were:

	Mid-October Response Rate:	Final Response Rate:
• Cleveland	(22.9%)	28.4%
• Columbus	(16.6%)	23.9%
• Toledo	(16.4%)	20.4%
• Baltimore & Detroit/Flint	(11.9% & 11.1%)	15.7%

The areas with the lowest response were--

• State of Delaware	(5.6%)	8.1%
• Boston & Springfield, MA	(6.3% & 3.2%)	8.8%
• East St. Louis	(6.8%)	8.9%

*This section reports on the completed responses of 855 employers. It should be emphasized that the statistical analyses reported later are based on 592 responses received by mid-October. Informal review seems to indicate only slight differences between the two samples.

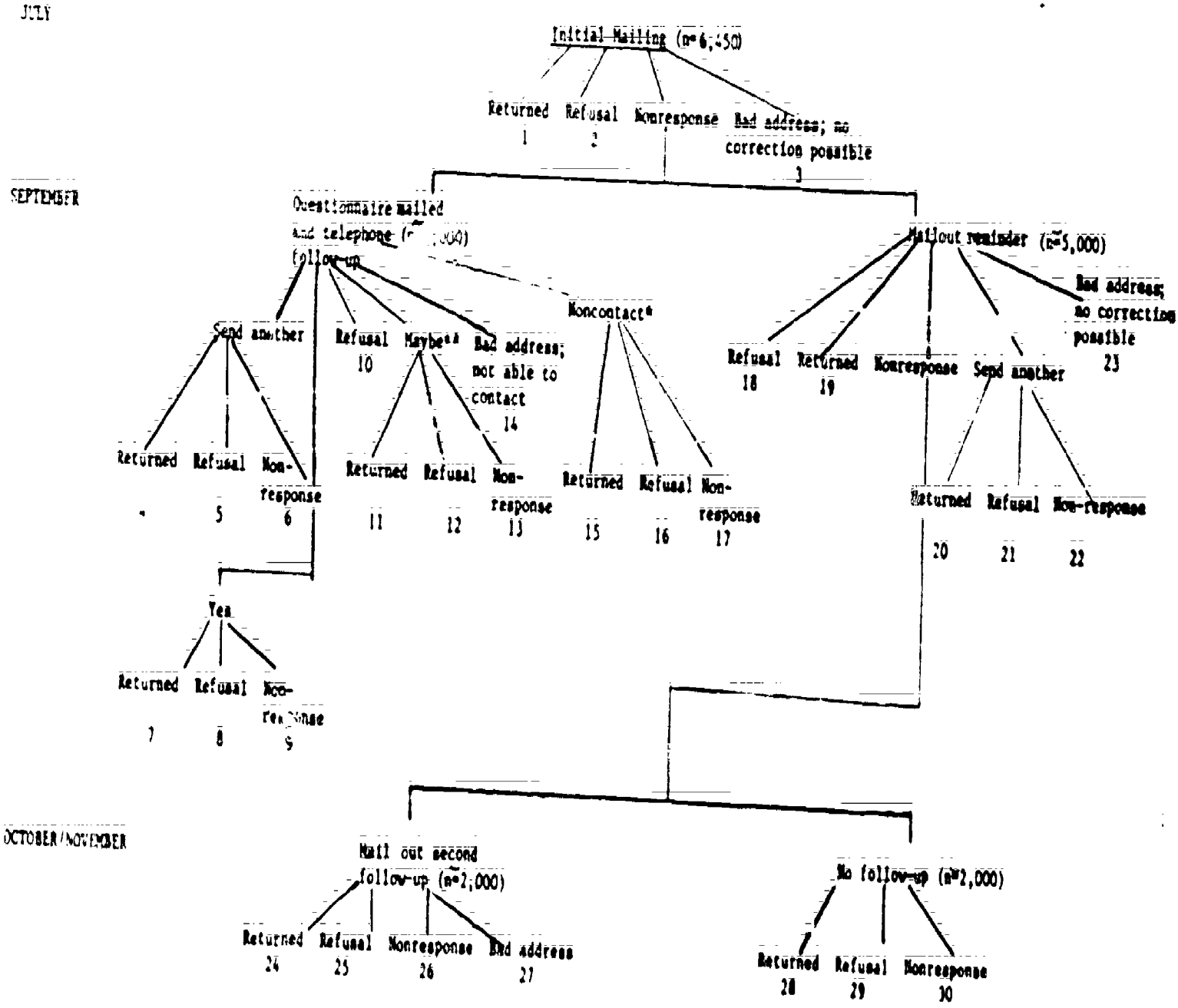

Figure 1. Summary of survey procedures and disposition codes

Employers who reviewed clerical applications had the highest response rate (15.9 percent); those who reviewed retail trade applicants had the lowest (10.2 percent). Exhibit A-7 provides a complete account of the disposition codes for all sites and occupations.

With postcards sent to five-sixths of the nonrespondents in the first follow-up and telephone contacts made with the other one-sixth, the survey procedures made it fairly easy for respondents to refuse to participate. Indeed, calculations from exhibit A-7 show that 664 refusals were received (10.3 percent of the entire sample). An attempt was made to learn as much as possible about these refusals in order to attempt to make inferences about the sample of employers from which completed responses were received.

Table 7 lists the refusal rates by area and occupation. What is interesting about this table is how it relates to the previous table that contains data on response rates. The correlation between the level of response and the level of refusal is very high. Four of the five areas with the greatest response rates are in the highest five refusal rates. Three of the four lowest response rates are in the four lowest refusal rates. In terms of occupation, the response and refusal rates have the same relative rankings (clerical occupations have the highest rate and retail trades occupations have the lowest rate.)

Because the sum total of completers and refusers represents approximately a quarter of the sample, only impressionistic conclusions about response bias can be formed. However, because rates of response and refusal seem to be correlated, it is most likely that response variation can be explained by inter-area causes (proximity to Columbus, industrial mix, age of Industrial Directory) and not within area causes.

In looking at reasons given for not participating, it appears as if the size of the firm may be an important issue. One hundred and eighty-eight out of the 664 employers who refused to participate in the survey gave reasons for not responding that were easily classifiable into five categories (if multiple reasons were given, the first was used for classification.) The most outstanding reason for refusing to participate was lack of time (31 percent). Of those employers who gave time as the reason for refusing to participate in the survey, 23 (39 percent) were in the clerical occupation; 12 (20 percent) were in retail trades; and 24 (41 percent) were in the machine trades.

TABLE 6

RESPONSES BY AREA AND OCCUPATION

Area	Number Responding							
	Clerical		Retail		Machine Trades		Total	
Boston, MA	7	(6)[a]	2	(1)	5	(3)	14	(10)
Springfield, MA	0	(0)	NA[b]	(NA)	11	(4)	11	(4)
Philadelphia, PA	43	(32)	14	(9)	40	(29)	97	(70)
State of Delaware	11	(8)	12	(7)	12	(9)	35	(24)
Baltimore, MD	12	(9)	6	(4)	11	(9)	29	(22)
Virginia Peninsula	10	(3)	7	(4)	1	(1)	18	(8)
Columbus, OH	24	(14)	13	(9)	19	(16)	56	(39)
Toledo, OH	20	(15)	1	(1)	14	(12)	35	(28)
Cleveland, OH	18	(15)	7	(5)	6	(5)	31	(25)
Detroit/Flint, MI	76	(51)	19	(14)	53	(40)	148	(105)
Chicago, IL	27	(18)	8	(6)	29	(20)	64	(44)
East St. Louis, IL	0	(0)	NA	(NA)	4	(3)	4	(3)
Houston, TX	22	(12)	9	(5)	17	(14)	48	(31)
Southern California	51	(37)	12	(6)	147	(91)	210	(134)
Seattle, WA	32	(18)	11	(6)	8	(4)	51	(28)
Total	353	(238)	121	(77)	338	260	855[c]	(592)[c]

[a]Entries in parentheses indicate responses received by mid-October; total = 592.

[b]Not applicable since zero firms in sample.

[c]Includes 4 responses with unknown city.

TABLE 7

REFUSAL RATES BY AREA AND OCCUPATION

Area	Percentage of Sample Refusing to Respond			
	Clerical	Retail	Machine Trades	Total
Boston, MA	1.7	16.1	8.9	7.5
Springfield, MA	0.0	NA[a]	9.1	8.8
Philadelphia, PA	7.9	10.9	11.6	10.4
State of Delaware	11.7	9.0	9.6	10.2
Baltimore, MD	13.7	6.4	13.8	11.9
Virginia Peninsula	7.7	7.0	11.1	8.3
Columbus, OH	14.6	1.4	5.6	11.5
Toledo, OH	13.2	21.4	13.6	14.0
Cleveland, OH	12.2	20.0	13.3	15.6
Detroit/Flint, MI	12.0	5.5	12.3	10.8
Chicago, IL	12.8	16.4	9.9	11.9
East St. Louis, IL	0.0	NA[a]	10.5	8.9
Houston, TX	9.5	5.3	6.6	7.8
Southern California	9.5	10.1	8.5	8.9
Seattle, WA	12.6	14.5	15.2	13.6
Total	10.9	9.7	10.0	10.3

[a]Not applicable since zero firms in sample.

A second reason for refusing to participate was the lack of staff necessary to complete the survey. Twenty-seven employers (14 percent) indicated this reason. The third category of refusals was that the firm was too small. Forty-three employers (23 percent) gave this reason. Of these, 12 employers (28 percent) were in the clerical occupations, six employers (14 percent) were in the retail trades, and 25 employers (58 percent) were in the machine trades. Still another reason for refusing to participate was that the survey itself was too long and/or complicated. Twenty-four employers (13 percent) said this. The final reason for refusing to participate in the survey was that the firm was out of business. Nineteen percent of all classifiable reasons were due to the demise of the firm. Other reasons given by employers, but not readily classifiable, were often ambiguous and may have involved one of the other reasons. These include does not apply to their firm, company policy, do not hire youth, use on-the-job training not formal training, or no reason given.

3.4.3 Summary

In reviewing and evaluating the survey methodology, a positive result was that the rate of response was relatively high when considering the complexity of the survey form. The response rate of over 13 percent compares favorably to the rule of thumb of 10 percent response rate for mail surveys. In addition, a review of the information collected about nonrespondents and refusals indicates that there were no glaring systematic biases among the respondents.

On the negative side, ex post facto evidence shows that the telephone follow-up was rather ineffective in eliciting additional responses. The response rate for the subsample who received the questionnaire in the first follow-up and were then contacted by telephone was only 12.2 percent. Secondly, there was some evidence that completed responses were lost through mishandling in the mail system. Over 20 employers contacted during the course of a follow-up indicated that they had completed the survey earlier and mailed it. Most of these refused to retake the survey (one individual had fortunately xeroxed the response and sent in a copy).

In the next chapter of the report, descriptive statistics calculated from the data that were returned are presented.

4. EMPLOYER CHARACTERISTICS

In this chapter, the data collected about each employer and firm are described. Appendix B in this report is comprised of a copy of the questionnaire that provides frequency distributions for all of the responses. As noted in the previous chapter, as of October 1, a total of 592 employers had responded. This chapter examines this sample of data only.

4.1 Employer and Firm Characteristics

The first set of data to be described comprises the characteristics of the respondents and the firms that they represented. Because of the nature of the three occupations examined in the study--clerical, retail, and machine trades--the sample was judgmentally screened by industry. Table 8 shows the industrial composition of the firms that responded. In general, durable manufacturing firms reviewed machine trades applicants; the retail trade establishments and hotels and other lodging places reviewed applicants for the retail job; and the finance and insurance, business services, and health services sectors rated the clerical position applicants.

There was wide diversity in the size of the establishment, with the median size class comprising 100 to 199 full-time employees. Fifty-six percent of the respondents indicated that their establishment was situated within a multi-establishment firm. The median for the firm size as measured by the total number of employees for these enterprises was 2,000 employees.

The median percentage of full- or part-time employees under the age of 25 was 20 percent. In an attempt to gauge the extent to which internal labor markets were existent among the firms, the respondents were asked how many foremen or supervisors were first hired by the establishment in an unskilled or semiskilled entry-level position. The median response was 30 percent.

Slightly over 68 percent of the respondents were not unionized. However for those establishments that did report some nonsupervisory workers covered by collective bargaining, the median percentage of union coverage was 70 percent.

TABLE 8

INDUSTRY DISTRIBUTION OF RESPONDENTS

SIC[a]	Industry	Occupation			Total
		Clerical	Retail	Machine Trades	
	Mining				
13	Oil and Gas Extraction	1		2	3
	Construction				
17	Special Trade Contractors	1		4	5
	Nondurable Manufacturing				
20	Food and Kindred	2		1	3
23	Apparel and Other Textile	1		1	2
24	Lumber and Wood Products	1			1
26	Paper and Allied Products	1	1	2	4
27	Printing and Publishing	9	1	1	11
28	Chemicals	5		3	6
29	Petroleum Products	1			1
	Durable Manufacturing				
30	Rubber Products			2	2
32	Stone, Clay, Glass Products			4	4
33	Primary Metal Industries	1		17	18
34	Fabricated Metal Products	1		78	79
35	Machinery, excluding Electronic	3		76	79
36	Electronic Equipment	6	1	9	16
37	Transportation Equipment	4		7	11
38	Instruments	1		5	6
39	Miscellaneous	1		3	4
	Transportation, Communication and Public Utilities				
40	Railroad			2	2
44	Water Transportation	1			1
45	Air Transportation	2		1	3
48	Communication	7			7
49	Public Utilities	6		1	7
	Wholesale Trade				
50	Durables	4	2	6	12
51	Nondurables	1	4		5
	Retail Trade				
52	Building Materials and Garden		1	1	2
53	General Merchandise		8		8
54	Food Stores		5	1	6
55	Auto Dealers		5	2	7
56	Apparel Stores		6		6
57	Furniture		4		4
58	Eating, Drinking Establishments		5		5
59	Misc.		11		11
	Finance, Insurance, Real Estate				
60	Banking	34			34
61	Credit Agency, excluding Banks	23	1		24
62	Security Brokers	3			3
63	Insurance Carriers	38			38
64	Insurance Agents	8	1		9
65	Real Estate	5	1		6
67	Holding Cos., Investment Office	4			4
	Services				
70	Hotels and other Lodging		15		15
73	Business Services	22	1	2	25
75	Auto Repair			1	1
76	Misc. Repair			2	2
78	Motion Pictures	1			1
79	Amusement and Recreation	1			1
80	Health Services	16	1		17
81	Legal Services	2			2
82	Education Services	2			2
83	Social Services	3			3
86	Membership Organization	6			6
89	Misc. Services				
90	Public Administration	2			2
	Unknown	11	1	5	17

[a]Standard Industrial Classification

There was a fairly wide variation in the characteristics of the individuals who responded. Males constituted 69 percent of the sample; blacks, 4.5 percent. In terms of respondents' age distribution, 15 percent were less than 30 years old, 44 percent were 30 to 44, 23 percent were 45 to 54, and the remaining 18 percent were 55 or over. Educational levels were quite high with about 70 percent responding that they had had 4 or more years of college or training beyond high school. Only 6 percent reported an education of high school graduation or less. The employers who responded had a median of 6 years of experience participating in the hiring decisions of their current establishments and a median of 10 years of experience in reviewing employment applications in any company.

In terms of their position within the firm, 286 out of 570 respondents (50 percent) reported being a manager or staff member of a personnel department. Slightly over 30 percent were the establishment's chief executive officer (CEO) or owner. Eighty-five percent of the respondents reported having hiring authority either on their own or shared with others. A somewhat smaller number (76 percent) reported having their own or shared authority to fire individuals.

4.2 Firms' Hiring Processes

The employers were asked to report what methods were used to attract applicants when there is an opening in an unskilled or semiskilled job. Of 569 responses, 22 employers (4 percent) indicated that they did not solicit applicants because they had enough unsolicited applicants. Of the remaining 547 responses, the rank ordering of the responses was as follows (employers could denote more than one method):

Method	Rank	Percent of Responses
Advertise in media	1	71.5
Announce to current employees	2	69.3
Ask for referrals from schools or vocational education institution	3	59.8
Ask for referrals from the state employment service	4	54.3
Ask for referrals from an employment agency	5	25.0
Make other efforts	6	17.0
Display Help Wanted sign	7	16.6
Ask for referrals from union	8	6.6

The way firms respond to telephone inquiries about employment, how often persons are allowed to complete an application, and what percentage of applicants are interviewed are all important aspects of a firm's hiring process. These policies also differ for many firms according to whether or not there is an opening. Thus, as can be seen in appendix B, questions were asked for periods when there was an opening and for periods when there was no specific opening in the firm. A large majority of employers encouraged telephone callers to come in and fill out an application when there was an opening in the firm. Fifty-three percent indicated that they encouraged callers to come in unconditionally, while an additional 34 percent encouraged callers to come in only if they had skills. When there was no specific vacancy, the employers were somewhat less encouraging. Only 33 percent invited callers to apply unconditionally, 22 percent invited callers to apply if skilled, and 36 percent of the employers generally discouraged callers when there was no opening.

Employers exhibited similar behavior in their policies for taking applications from individuals who came to their establishments without a referral. When there was a vacancy, 55 percent of the respondents indicated that they gave applications forms to 95-100 percent of the walk-ins and only 10 percent reported having given application forms to 0-5 percent of walk-ins. But when there was no specific opening, 27 percent of the employers did not give out applications to walk-ins (i.e., gave them to 0-5 percent) and only 27 percent gave out applications to 95-100 percent.

The percentages of persons who complete applications and who are interviewed immediately change quite a bit when there is or is not an opening. Following are the responses to the question about the percentage of persons who fill out an application and who are interviewed immediately:

Response Categories for Percentage of Applicants Interviewed When There Is an Opening	Percent	Response Categories for Percentage of Applicants Interviewed When No Specific Opening	Percent
95-100%	31.1	95-100%	6.2
76-94%	10.4	76-94%	1.5
51-75%	10.1	51-75%	3.7
26-50%	7.3	26-50%	6.4
6-25%	12.2	6-25%	14.7
0-5%	28.7	0-5%	67.5

The respondents to this data collection effort reported a wide variation in the number of interviews per hire. The median response to the question of "on average, how many people are interviewed to fill an opening" was five. The responses ranged from 1 to 63.

A sizable portion of the respondents (72 percent) reported that they reviewed previously filed applications in making their decisions about whom to interview. Among the respondents who did consult their files, a median of 25 percent of all interviews were with individuals who had had applications on file, and 48 percent of the respondents indicated that half or more of such interviews resulted in a job offer.

4.3 Training and Productivity

Data were also collected about the training process and productivity during training of typical new employees holding jobs similar to the ones described for the application rating. Training was classified into six types: (1) formal training by specialized training personnel, (2) self-paced learning programs, (3) instruction received from a supervisor, (4) job learned by watching co-workers, (5) job learned by doing it while someone devotes 100 percent of his or her time watching, and (6) job learned by doing it while someone watches progress out of the corner of his or her eye. Information on hours spent in each of these types of training was collected for the first month of employment, for the next 11 months, and for the second year of employment. It turns out that approximately a half person-year of training occurs over these three periods. The mean level of training reported by the respondents was 110 hours during the first month of employment, 584 hours during the next 11 months, and 350 hours during the second year.

Besides responding to the levels of training, the employers rated the productivity of a typical new employee who was engaged (or not engaged) in training activities during the first day of employment, at the end of the first month, and at the end of the first year of employment. The instructions were, "Please rate a typical employee's productivity on a scale of 0 to 100, where 100 equals the maximum productivity rating any of your employees has or

can attain and 0 is absolutely no productivity by your employee." The questions about the productivity of recently hired employees were intended to provide indicators of the relative productivity of a worker at different points in time or engaged in two different activities. These questions do not attempt to measure productivity in any absolute sense.

Relative productivity was rated as being very low during the first day if the worker was not engaged in any training activity (median = 5), was being trained by a line supervisor or management (median = 20), or was being trained by co-workers (median = 15). At the end of the first month, the median ratings were 50, 60, and 50, respectively. At the end of the first year, the medians were 85, 90, and 85.

In an attempt to measure whether or not the training given to new employees in these jobs was general in nature or specific to the firm, employers were asked how many skills learned on the job were useful outside of their company and how many other companies in the local labor market have jobs requiring those skills. The frequencies of the responses were as follows:

Skills Learned That Were Useful Outside Company		Percentage	Companies in Area Having Jobs Requiring Same Skills	Percentage
All	95-100%	21.2	Less than 5	6.3
Most	61-94%	44.2	5 - 15	15.8
Half	40-60%	18.4	16-100	37.7
Some	0-39%	11.9	100+	40.2
Minimal	0-5%	4.5		

These frequencies indicate that most of the training which respondents reported was general in nature and that there were a large number of firms in their respective areas where workers could use those skills. Such a situation would suggest that wages would be relatively low as individuals bear part of the cost of training. Indeed, the median starting hourly wage for the jobs was only $5 per hour.

4.4 Experience with Recently Hired Workers

The last type of background information collected in the seminars pertained to the experiences firms had with recently hired workers. Information such as age, sex, race, educational attainment, referral source for the job, wage rate, and productivity score was obtained for a choice-based sample of 5 individuals hired within the last 2 years: one had been promoted, one was still employed but had not been promoted, one had been a discharge, one had been laid-off, and one had resigned voluntarily. When asked about retention/separation of workers, employers reported that a median of 10 percent of employees aged 16 to 25 hired 2 years ago would be discharged or induced to resign, a median of 18 percent would have voluntarily resigned, a median of 0 percent would be laid-off (39 percent of employers reported having any workers currently laid-off); and a median of 60 percent would still be employed at the firm. Of the workers still at the firm (60 percent), employers responded that about 30 percent would have received a job promotion, or "given noticeably upgraded job responsibilities involving a higher rate of pay."

Approximately three-quarters of the sample responded to the questions about the characteristics of workers who were promoted and who were still at the firm but not promoted. Table 9 presents frequency distributions concerning the characteristics of these workers. The age of promoted workers tended to be higher than those workers not promoted. This occurred because the education/training level of promoted workers was higher than that of workers not promoted (about 40 percent of the promoted workers had some education beyond high school, whereas only about a quarter of the nonpromoted individuals had some postsecondary schooling). Having taken some relevant vocational education in high school was also characteristic of workers who were promoted in comparison to those not promoted.

Slightly over 50 percent of workers who were promoted had taken a relevant vocational education class in high school, whereas only about 34 percent of those who were not promoted had done so. (The percentages for relevant vocational education in a postsecondary institution are unconditional. The percentages of promoted workers and nonpromoted workers who had attended a postsecondary school and who had taken a relevant vocational education course were both close to 100 percent.)

TABLE 9

CHARACTERISTICS OF YOUNG WORKERS WHO WERE RETAINED BY FIRMS FOR 2 YEARS AND WERE PROMOTED OR NOT PROMOTED

Characteristics	Promoted	Not Promoted
Age		
Less than 20	10.9%	23.9%
20-21	18.9	23.2
22+	70.2	52.9
Sex		
Male	49.3%	50.0%
Female	50.7	50.0
Race		
Black	13.7%	12.3%
Hispanic	14.1	13.0
White/other	72.2	74.7
Education		
Less than high school	4.4%	14.1%
High school graduate	56.2	60.8
Some college/training	29.2	18.3
College graduate	10.2	6.5
Relevant voc. ed. in high school		
Yes	50.6%	34.3%
No	49.4	65.7
High school GPA		
A	7.3%	4.2%
B	24.5	19.5
C	11.5	18.4
D	1.6	3.5
Unknown	55.1	58.4
Relevant voc. ed. in postsecondary		
Yes	43.0%	25.8%
NA/No	57.0	74.2
Postsecondary GPA		
A	4.9%	5.0%
B	16.0	8.3
C	5.1	8.0
D	.8	1.4
NA/Unknown	73.2	79.3
Years of relevant work experience (Part-time or full-time)		
None	15.9%	25.1%
Less than 1 year	16.6	24.0
1-2 years	37.4	35.3
More than 2 years	30.0	15.6
Did employee receive more training than average worker in job?		
More	8.1%	11.5%
About the same	86.8	85.8
Less	5.1	2.8
Did firm receive subsidy for hire?		
Yes	2.3%	2.8%
No	97.7	97.2
Median hourly wage	$ 6.60	$ 5.65
Median productivity score	90	75

The high school and postsecondary grade point averages that were reported confirmed the hypothesis that promoted workers tended to have higher grades. For workers who were promoted, when the respondent reported a high school or postsecondary grade point, over 70 percent had had a B average or better in high school and over 80 percent had had a post-high school B average or better. The comparable percentages for workers not promoted were 47 and 54 percent, respectively.

The years of relevant work experience (either part- or full-time) tended to be higher for workers who were promoted than for workers who were not promoted. Over two-thirds of the promoted workers were reported to have had more than 1 year of relevant work experience prior to being hired, while only half of the nonpromoted workers had that much relevant work experience.

The distribution of promoted and nonpromoted workers was virtually identical across the characteristics of sex, race, amount of training, and whether or not the firm had received a subsidy for hiring. As would be expected, the promoted workers' median current hourly wage and productivity score were significantly higher than for their nonpromoted counterparts.

A smaller percentage of the respondents provided data on a voluntary resignation (n = 386; 67 percent), a layoff (n = 257; 45 percent), and/or a discharge (n = 357; 62 percent). Table 10 provides frequency distributions for the characteristics of these individuals.

In comparing these three types of separations, it can be seen that three out of five layoffs and discharges were males, whereas only half of the quits were males. Eighty percent of the quits were white/other, whereas only 70 percent of the layoffs or discharges were white/other. Of the nonwhite layoffs, half were black and half were Hispanic, but of the nonwhite discharges, two-thirds were black.

In terms of educational attainment, a higher percentage of voluntary resignees had postsecondary training than individuals who had been discharged (30 percent compared to 22.6 percent). In turn, a higher percentage of those who had been discharged had postsecondary training than workers on layoff (22.6 percent compared to 17.2 percent). Similarly, high school grades were higher for quits than for those discharged and high school grades for those discharged were higher than for layoffs. Comparing only cases where grades were

TABLE 10

CHARACTERISTICS OF YOUTHFUL WORKERS SEPARATED FROM THE FIRM WITHIN THE FIRST 2 YEARS

Characteristics	Voluntary Resignation	Layoff	Discharge
Age			
Less than 20	14.2%	16.7%	16.8%
20-21	24.1	27.6	22.1
22+	61.7	55.7	61.1
Sex			
Male	51.2%	61.2%	59.4%
Female	48.8	38.8	40.6
Race			
Black	11.3%	14.9%	20.5%
Hispanic	10.0	14.9	9.1
White/other	78.7	70.2	70.4
Education			
Less than high school	12.5%	18.5%	16.9%
High school graduate	57.8	64.3	60.5
Some college/training	21.1	10.8	16.3
College graduate	8.6	6.4	6.3
Relevant voc. ed. in high school			
Yes	41.8%	35.5%	29.8%
No	58.2	64.5	70.2
High school GPA			
A	4.8%	3.2%	2.3%
B	17.4	6.9	10.9
C	13.6	21.0	14.6
D	2.7	3.6	5.1
F	0.0	0.0	.9
Unknown	61.5	65.3	66.2
Relevant voc. ed. in postsecondary			
Yes	30.5%	24.8%	24.5%
NA/No	69.5	75.2	75.5
Postsecondary GPA			
A	2.3%	3.3%	1.0%
B	10.8	5.6	7.7
C	6.5	8.9	7.7
D	0.0	0.0	.3
NA/Unknown	80.0	82.2	82.6
Years of relevant work experience (Part-time or full-time)			
None	19.5%	19.3%	21.9%
Less than 1 year	23.2	26.9	21.9
1-2 years	35.5	33.3	34.3
More than 2 years	21.8	20.5	21.9
Did employee receive more training than average worker in job?			
More	9.1%	13.3%	18.2%
About the same	89.1	82.3	79.0
Less	1.8	4.4	2.8
Did firm receive subsidy for hire?			
Yes	2.4%	2.1%	2.2%
No	97.6	97.9	97.8
Median duration before separation	12 months	12 months	10 months
Median hourly wage at separation	$5.75	$6.00	$5.50
Median productivity 2 weeks prior to separation	75	70	50

reported, the percentages of quits, discharges, and layoffs with a high school grade average of B or better were 57.7 percent, 39.1 percent, and 29.1 percent, respectively.

Almost 42 percent of the individuals who had voluntarily resigned had taken a relevant vocational education course in high school compared to 35.5 percent of those laid-off and 30 percent of those discharged. Note that the educational attainment of the individuals who had been laid off (in terms of amount of schooling and grades) was lower than that of individuals who had been discharged, but a higher percentage had taken a relevant vocational education course. This could partially explain why a higher percentage of the discharged individuals had received more training than the average worker in the same job, as compared to workers who had been laid-off.

There was little difference across the three types of workers in terms of age, years of relevant work experience prior to being hired, whether or not the firms had received a subsidy, or duration prior to separation. It is interesting to note that although the individuals on layoff had the lowest educational attainment, lowest amount of prior relevant work experience, and second lowest amount of vocational education and productivity ratings, they were reported to have the highest wages. This is likely to be explained by occupational, unionization, and sex differences across the three types of separations.

The next chapter of the report presents the results from the estimation of various models used to explain the employability ratings of the applicants.

5. CHARACTERISTICS WHICH INFLUENCE EMPLOYABILITY RATINGS

5.1 Theory

As Bishop, Barron, and Hollenbeck (1983) suggest, to a potential employer, the "true" present value of labor services offered by a new employee is a random variable, V. The employer has each job seeker fill out an application form that is screened to obtain a set of information about the job seeker, I. The set of information is then summarized by a screening index of qualifications, S(I), and a reservation screening index is derived, S^*. Only individuals with a screening qualification index exceeding the reservation screening index are offered an interview.

This research determines the model underlying the summary of information into the screening index (i.e., the S(I) function). As described previously, each respondent was presented with several applications and asked to rate the applicants on a scale of 0 to 200. To standardize the ratings to the firm's hiring standards, the following directions were given:

> For a job similar to the one described above, assume--
>
> 50 points represents the worst applicant you ever hired (as perceived at the time of hiring, NOT what the new hire's performance actually turned out to be)
>
> 100 points represents the average applicant you hire
>
> 150 points represents the best applicant you ever hired (as perceived at the time of hiring, NOT what the new hire's performance actually turned out to be)

Note that since there is really no way to measure employability per se, the index is a measure to be used to compare more than one applicant for the same job description.*

*It is probable that job seekers sort employers or potential jobs in their search activities by the expectation of getting an offer. This sorting may result in two searchers with quite different credentials having equal probability of employment. The employability index is thus only meaningful for applicants for the same job description.

How is an employability rating determined? Human capital theory suggests that an individual's productivity is determined by his or her human capital, which is measured by prior work experience and workplace knowledge, education, and/or vocational training. The more or the better the human capital, the higher the productivity an individual would exhibit, and thus, the higher the employability. The the research reported here has been limited to noncollege-bound youth seeking an entry-level career position, so human capital is limited to job experience in part-time or summer jobs, and secondary or post-secondary education, which may include vocational training. Human capital theory would suggest that employers could distinguish between job applicants who were very similar--same educational attainment, similar grades, and so forth—by examining work experience patterns.

An alternative theory that may be referred to as a screening or signaling theory (Arrow 1973; Spence 1972, 1973) suggests that productivity is not determined by human capital, but rather by inherent traits or talents of individuals. The theory assumes that these talents are inversely related to the costs of schooling or private training, so that employers can use wages to provide incentives for more talented individuals to acquire more schooling.* Thus, the level of schooling can be used as a signal of underlying traits.

A variant of this theory that might be entitled job rationing or queuing theory (see Thurow 1969) posits that productivity is embedded in the job and that schools and work experience serve to sort out potential job applicants. In other words learning and training take place on the job, so that the function of schools is simply to screen individuals and not to impart human capital. Presumably, individuals who achieve higher levels of education are valued because they will be more easily trained and will be rationed into best jobs. An implication of the signaling and queuing theories is that employers screen applications in such key areas as having a high school diploma or post-secondary education, while other characteristics of the applicants have little bearing on their employability ratings.

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*Wages for the jobs that require a high level of inherent traits will be set high enough such that they cover the costs of schooling for highly talented individuals but do not cover the (higher) costs for lesser talented individuals.

The models estimated below stem from a theoretical perspective that is a combination of the human capital and signaling theories.* The theory suggests that employers believe an applicant's true productivity, V, is determined by a set of attributes, some of which are observable and some of which are not. Denote these two sets as A_O and A_N. The following equation determines productivity:

(1) $$V_{ij} = f(A_{Oi}, A_{Ni}, K_j)$$

where

V_{ij} is the productivity of the ith individual in firm j's job

A_{Oi} are i's observable attributes that determine productivity

A_{Ni} are i's nonobservable attributes that determine productivity

K_j are characteristics of firm j that may affect productivity such as capital stock, age, firm size, and so forth.

The personnel function in a firm is to observe applicants and predict their potential productivity. This is done by calculating an index that is the expectation of productivity conditional on A_{Oi}, A_{Ni}, and K_j, or

(2) $$S(I) = E(V_{ij}|A_{Oi}, K_j, A_{Ni}).$$

(It is assumed that productivity measures can be monotonically transformed to a scale from 0 to 200.) The problem which the personnel staff faces is that the A_{Ni} are not observable. The theory suggests that signals are developed for them. It is assumed that the signals do not affect productivity directly.** For example, neatness on the application form is taken to be a signal of having a good attitude or being neat and careful. Location or reputation of a school is taken to be a signal for of how well education an individual is or how disciplined he or she is or as a proxy for location of residence, that itself is a signal of socioeconomic status.

But firms, and what is more important, the personnel within firms, vary with respect to what they consider to be relevant proxies and the importance or weight put on each proxy. There is a natural feedback loop operating in firms as is shown in figure 4.

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*Spence (1981) presents an alternative, simple theoretical model that achieves this combination, also.

**It may be assumed that signals that do affect productivity are in A_{Oi}.

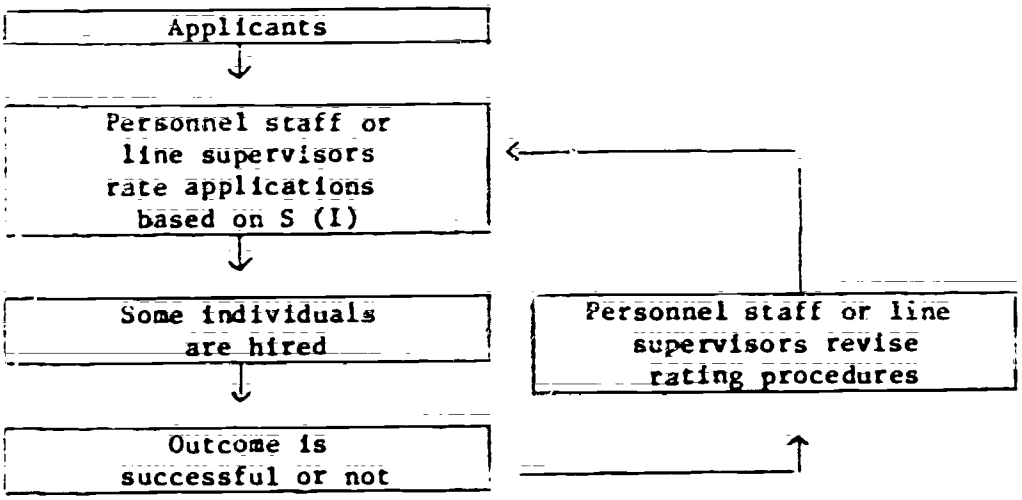

Figure 4. The personnel feedback loop in firms

This figure demonstrates that various candidates file applications for an opening. The personnel staff or line supervisors review those applications and on the basis of their current S(I) function (ratings function), they recommend certain applicants over others. These applicants are hired and turn out to be successful or unsuccessful matches for the firm. Based on these outcomes, the raters may alter their particular screening mechanisms. The upshot of this model is that the nonobservable characteristics are proxied according to the following function:

(3) $A_{Ni} = g_{jk}(C_i) + e_{ijk}$

where

g_{jk} is the signaling function of the kth rater at firm j

C_i are the proxy characteristics of the ith applicant (signals)

e_{ijk} is an error term.

Substituting (3) into (2), we find the following:

(4) $S(I) = E(V_{ij} | A_{Oi}, K_j, g_{jk}(C_i) + e_{ijk})$.

The A_{Oi} in equation (4) are the human capital variables and the C_i are signaling characteristics such as application neatness, eligibility for TJTC, race, location of high school, reason for leaving previous employer, and so forth.

The models that were estimated come directly from (4) and are as follows:

$$(5) \quad S(I)_{ijk} = a_1 + b_1X_j + b_2Y_i + b_3Z_k + b_4Y_iZ_k + e_{ijk}$$

where

$S(I)_{ijk}$ = hiring index scores for ith individual by application rater k in firm j

X_j = characteristics of firm j

Y_i = characteristics of applicant i

Z_k = personal attributes of person k doing rating for firm j

Note that the Z_k variables enter the model directly and also interacting with applicant characteristics. The interactions result from the process of raters observing hiring outcomes that reinforce their choice of signals or cause them to alter those proxies. The additive terms will test whether or not there are independent effects of the raters' personal characteristics on the ratings. The parameters that are estimated from (5), i.e., the b_i, represent the marginal influence of the characteristic on the employability score.

The next sections of this chapter focus on the influence of individual groups of variables on employability ratings. Equation (5) was estimated for all occupations jointly and for each occupation separately. Applicant characteristics, data about the job and firm, and rater characteristics were in the models together, but their effects are discussed separately in the remaining sections of the chapter.

5.2 The Influence of Applicant Characteristics

5.2.1 High School Characteristics

In constructing the applications to be used as stimuli in the data collection, the following characteristics about the applicants' high school experiences were varied:

- Name (type) of high school
- High school major/program
- Participation in a cooperative education program or occupational work experience program
- Grade point average
- Graduate or dropout

The variance concerning the name or type of high school was that Central High School represented a central city, public school; St. Mary's, a parochial school; and Jeffersonville, a rural or surburban, presumably public, school. Obviously, the influence of these variables depends on how respondents interpreted the school names.

The high school major or programs differed slightly by occupation and were assigned randomly from the following list:

Retail/Clerical Applicant	Machine Trades
General	General
Office Education	Machine Trades
Distributive Education	Cooperative Machine Trades
College Preparatory	Occupational Work Experience (OWE)
Cooperative Office Education	
Cooperative Distributive Education	
Occupational Work Experience	

The variables that were constructed from this information were whether or not the high school program was relevant to the job in question and whether or not the applicant participated in a cooperative education program or an occupational work experience program.

The marginal effects on employability of high school characteristics are presented in table 11. The high school grade point average had the strongest influence on employability ratings of any of the secondary school variables. In developing the applications, grade points were assigned randomly from a uniform distribution over the span [1.40, 3.60] of a 4.0 system. The marginal effect is quite consistent across all the occupations and in magnitude represents almost 15 percent of the mean employability rating.

As might be expected, graduation from high school generally had a significant and large effect on employability ratings. However, the size of the coefficient was smaller than for a 1.0 difference in grade point average and was not significant for retail trade employers.

Several studies have attempted to examine the relationship between the quality of schooling and earnings or wage rates. Johnson and Stafford (1973) found that a 10 percent increase in school expenditures per student increases

TABLE 11

MARGINAL EFFECTS OF HIGH SCHOOL CHARACTERISTICS ON EMPLOYABILITY RATING

Variable	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Attended Central High School[a]	1.13	3.89**	4.00	- 2.48
Attended St. Mary's High School[a]	.92	4.77**	.42	- 2.65
Cooperative ed. program	2.25	.03	9.57**	[b]
Occupational work experience program	2.04	3.76	4.73	1.77
Relevant major	- .85	- 1.30	- 3.94	3.42*
High school GPA	12.95***	12.77***	10.40***	14.62***
Graduated	9.11***	9.87***	5.52	12.09

[a] Omitted class is attended Jefferson High School.

[b] Not applicable in this equation

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

TABLE 12

MARGINAL EFFECTS OF POSTSECONDARY SCHOOL EXPERIENCE ON EMPLOYABILITY RATING

	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Attended a postsecondary institution	9.67	7.44	16.77	13.10
Attended private institution	1.93	2.36	9.03	1.38
Postsecondary GPA	1.95	3.85	- .67	2.23
Obtained a degree	7.24***	3.01	16.07**	7.81**

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

the annual return to schooling by close to 2 percent. Wachtel (1974) found similarly strong effects in data in which student test scores were available as well; the correlation between expenditures and test scores was also quite high. Wise (1975) found strong effects of school quality on earnings and even on dates of advancement of workers in a large firm. This study examined the relationship between quality of schools and the employability index. The findings show the type (or location) of high schools influenced employers' ratings of applicants for clerical jobs only; both urban and parochial high school attendance raised employability ratings. Urban and parochial school attendance had a negative (but statistically insignificant) effect for machine trades applicants.

Participation in a co-op program (distributive education) had a relatively large, positive effect for retail applicants, but the relevance of the high school major or program and participation in an occupational work experience (OWE) program did not have significant effects in any of the other equations.

5.2.2 Postsecondary School Experience

As described above, each employer rated 11 applicants of which 4 had attended a postsecondary institution. The marginal effects of attendance, type of institution, grade point, and obtaining a degree from a postsecondary school on employability ratings are shown in table 12. For these variables, finishing a program was the only significant variate (although even that was not significant in the clerical equation). A dummy variable for attending a postsecondary institution at all (degree or not) was quite large in magnitude (and was significant in some preliminary model specifications), but whether or not the institution was public or private and grade point average attained in the postsecondary school did not have significant marginal effects on employability ratings.

5.2.3 Prior Work Experience

Considerable variation in prior work experience was introduced on the application forms. The number of prior jobs held ranged from zero to five. The number of months of prior work experience ranged from 0 to 68. Previous employers and their positions are shown earlier in this paper in table 4. Reasons for leaving jobs included "Left to look for full-time job," "Left for

better job," "Went back to school," "Was laid off," "Was temporary job," and "Quit." In table 13, the coefficients for a number of work experience variables are presented. In the empirical examination of work experience, applicants who had worked prior to finishing their schooling were classified into two groups: (1) working during summers only and (2) working during the school year and summers. Some controversy has arisen in the literature about the effect of part-time work during high school, so those applicants who had chosen to work only during summers were isolated from those who worked during the school year. For both types of workers, a zero-one dummy variable was entered into the equations as well as months of work experience in the two states to measure the length of the work experience.

In terms of types of prior work experience, several variables were used to test hypotheses about relevant work experience and work experience in large firms or organizations, in fast-food establishments, and in public organizations. The hypotheses were that a larger share of work experience in relevant jobs or in jobs in large organizations would have a positive influence on employability ratings, and that a larger amount of time in public jobs or work experience in fast-food restaurants would have a negative influence on applicants' employability ratings. In prior work, employers reported that reasons for leaving jobs were important factors in assessing applicants, so the following two variables were used: (1) the number of times the reason for leaving a job was "Quit" and (2) the number of times the reason for leaving was "Was laid off."

Finally, if the applicant had worked, the applicant's unemployment status was measured by using the months since the last job ended. The expectation about this variable is ambiguous since a long period of unemployment could indicate that the applicant is not as employable as other applicants who have shorter spells of unemployment. On the other hand, it could indicate that the applicant is more eager or willing to work and thus might be a good hire. The last variable in the table is the gaps in employment experiences, (i.e., there was at least one month of not working between two prior jobs). Existence of a gap is tyically thought to be a negative factor.

The results showed that having <u>some</u> work experience had a very large positive influence on employability ratings. The distinction between working

TABLE 13

MARGINAL EFFECTS OF WORK EXPERIENCE VARIABLES ON EMPLOYABILITY RATING

Variable	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Any work experience	2.94	7.96*	11.43	1.70
Total number of months of prior work experience	- .06	- .22	.26	- .00
Number of jobs	- 3.77***	- 4.39**	- 7.08	- .35
Worked part-time during school year prior to leaving school	8.04***	7.41	4.35	9.13**
Number of months worked during school year	.14	.11	.90	.18
Worked only summers prior to leaving school	7.07***	7.34*	16.48	5.32
If worked only summers, numbers of months	.16	.87	- 5.69	- .50
Ratio of months of relevant work experience to total months of work experience	14.73***	14.81***	27.87***	9.23**
Ratio of months of work experience in large organizations to total months of work experience	6.70***	2.55	10.94	13.47**
Ratio of months of work experience in public organizations to total months of work experience	- 6.73***	- 4.66	10.30	-14.64***
Any work experience in fast-food restaurants	1.95	1.74	14.53***	- .07
Number of quits	- 5.26***	- 7.05***	- 1.93	- 5.17*
Number of "laid-off's"	- .30	2.41	4.72	- 6.71**
Months since last job	.40	- .19	1.08	1.09**
Gaps in employment record	4.01*	4.36	- 6.38	.43

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

only in the summer versus working at some time during the school year was not important though. Having either type of work experience had a significant, positive marginal effect on employability of about the same magnitude. The implication of the results is that working part-time (or full-time) during the school year does not provide more than a marginal improvement in employability ratings, over having work experience solely during summers. But, considering the large influence that high school grade point average has on employability ratings, if part-time work influences those grades negatively, any marginal advantage from the extra work experience quickly disappears.

Employers, particularly those assessing clerical applicants, reacted negatively to the number of prior jobs held. The number of jobs can be interpreted as a signal of a high turnover propensity, which is presumably a negative trait. The total number of months working was not significant in any of the equations, implying that employers tend to count the number of prior jobs for which information is provided, but do not weigh the duration of those jobs heavily.

The relevance of the applicant's prior work experience was an important positive factor in determining employability ratings. If one of two otherwise identical job applicants had 40 percent of his or her job experience in relevant jobs, whereas the other had all prior work experience in relevant jobs, the former's predicted rating was lower by about nine points (which is approximately the same size effect as high school graduation). The relevance of the job experience variable was particularly important for retail applicants.

Work experience in large organizations was also confirmed to be a positive causal factor. It was positive in all equations and statistically significant in the full sample and the machine trades sample. Work experience in a public (or governmental) organization had a significant, negative marginal effect on employability ratings (again in the full sample and machine trades). Work experience in a fast-food restaurant did not stigmatize youth as anticipated; and for retail employers, such work experience was one of the two strongest determinants of employability.

The results shown in table 13 support the hypothesis that the number of quits is negatively associated with employability ratings. In terms of magnitude, two quits would more than offset the positive marginal effect of having

any work experience. The number of times the applicant reported being laid-off was an important negative factor for machine trades employers, but not for the clerical or retail employers. This may stem from the fact that firms in the machine trades sectors are more often unionized and tend to have formal layoffs; therefore, these employers were more sensitive to that information.

The number of months since the last job ended was a significant, positive variable for the machine trades employers, but did not influence the raters of the other occupations. Having a gap in the employment record inexplicably had a significant, positive effect on employability ratings.

5.2.4 Skills and Other Factors

Two occupationally specific skill variables were shown on the application forms that were rated. For clerical and retail applications, the applicant's tested typing speeds were reported (this was randomly drawn from a range of 50 to 60 words per minute). For the machine trade applicants, the number and names of machines that could be operated were provided. In this case, one-third of the applications had "none," one-third had "boring mill, saw, shaper," and one-third had "lathe, grinder, drill press, milling machines, boring mill, saw, shaper." As shown in table 14, both of these skill variables were highly significant.* For clerical applicants, results show that a typing speed of 10 words per minute higher improves employability as much as attending a postsecondary program.

A question of interest is how the source of referral affects the employer, and his or her assessment of an application. Bishop, Barron, and Hollenbeck (1983) have shown a strong proclivity on the part of employers to rely on informal methods of referral such as friends or current employees in making hiring decisions. Their study shows that workers hired through informal channels had higher productivity and required less training time than workers on the same job who were hired through formal sources such as the Job Service, schools, or private employment agencies. The referral source item on the application was used to test the effect of referral source on employability ratings. In the simulated applications, the following referral sources were distributed equally:

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*In the full sample analysis, the mean number of machines operated (3.67) was entered for clerical/retail applicants and the mean typing speed (50 words per minute) was entered for machine trades.

TABLE 14

MARGINAL EFFECTS OF SKILL AND OTHER VARIABLES ON EMPLOYABILITY RATING

Variable	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Typing Speed	.40***	.70***	- .41	a
No. of Machines Operated	1.16***	a	a	.95***
Referral Source:				
Employment Service	- .01	.99	- 3.66	- 1.54
School	1.66	- .58	2.62	2.36
Advertisement/sign	- 1.80	- .78	3.16	- 4.12
Friend	- .45	2.33	2.34	- .18
Eligibility for TJTC	.77	3.00*	1.13	- .78
Age	.75	- .43	1.54	.73

[a]Not applicable since variable not used in these applications.

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

TABLE 15

MARGINAL EFFECTS OF JOB CHARACTERISTICS ON EMPLOYABILITY RATINGS

Variable	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Starting wage	.38	.39	4.18***	.15
Occupation (1=clerical; 2=retail; 3=machine)	1.78	a	a	a
Difficulty of dismissal[b]	- 1.18	.09	11.28**	- 3.57
Cost of machine[c]	.16	.35	2.03	- .71

[a]Not applicable in this equation.

[b]Dummy variable equal to one, if "A lot" or "some" paperwork required to dismiss an employee; 0 otherwise.

[c]Categorical variable from smallest category to largest.

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

Job service
School counselor
Advertisement/sign
Unknown or no referral
Friends/acquaintance at firm

The "unknown or no referral source" was the omitted category, so all of the coefficients in table 14 are relative to that category. Although there are interesting differential patterns in the signs of the variables across occupations, none of the coefficients were statistically significant.

The Targeted Jobs Tax Credit (TJTC) is a program designed to subsidize the employment of disadvantaged workers. Because TJTC is a subsidy and because of its limited eligibility, theory suggests that employers will tend to substitute eligible applicants for noneligible applicants in their hiring decisions. Furthermore theory suggests that firms will expand their total employment because of the tax credit.* Burtless and Cheston (1981), however, found that being eligible for TJTC stigmatizes workers and causes them to be at a disadvantage in the labor market. Firms tend to avoid participation because of paperwork and auditing burdens.** In the models reported here, these competing hypotheses were tested. The hypothesis that eligibility for TJTC stigmatizes an applicant was not borne out by the statistical results. In fact, such eligibility had a significant positive influence for clerical applicants. Finally, age of the applicant had no independent influence on employability.

5.3 The Influences of Job and Firm Characteristics on Employability

5.3.1 Job Characteristics

Characteristics about a job that might influence ratings are the wage rate, the occupation, the amount of job security, and the type of equipment with which the applicant would work. Hypotheses are that the higher the starting wage, the more care that will be exercised in hiring (i.e., the lower the rating). Also, the more job security (as measured by the difficulty of firing variable) and the more expensive the equipment to be used on the job, the more negative the rating will be.

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*The U.S. Treasury Department, in fact, testified against a continuation of the TJTC because its factor distortion tends to cause substitution toward less efficient labor away from more efficient capital.

**The fast-food industry is a notable exception.

As seen in table 15, none of these hypotheses are confirmed and two of the hypotheses are contradicted for retail jobs. In all the equations, the higher the starting wage for a position corresponding to the job description provided, the higher the rating, all other things equal. The magnitude of the effect is particularly large and significant for retail employers. The variable dealing with difficulty of dismissal similarly had an effect that had the opposite sign from what was expected for the retail applicants. A possible explanation for the countervailing findings in retail trade establishments is the extent to which commissions are used. If commissions account for a larger share of total compensation (therefore, wages a lower share), then employers may exercise more caution in hiring, i.e. ratings will be lower.

5.3.2 Firm Characteristics

The estimates of the marginal effects of these characteristics of the firm are presented in table 16. Most of the results confirmed prior expectations, although the behavior exhibited in the estimation of the machine trades equation is distinctly different from the behavior estimated for the other two occupations.

The first characteristic about a firm to be considered was its employment size. The hypothesis is the larger a firm is, the more likely it is to have a formal personnel department which implies economies of scale in processing applicants. One expects, therefore, more extensive search and higher applicant ratings. Larger firms can afford to interview and investigate more applicants, so at the application stage, they will be less discerning. Other things equal, they will rate applicants higher. Employment size had the expected positive effect for clerical and retail applicants, the former being statistically significant, but for machine trades, the coefficient was essentially 0.

Since the universe of applicants was comprised of youths, another characteristic of the firm's work force of interest would be the percentage of workers under age 25. If that percentage is relatively large in a firm, then youthful applicants such as those which are the focus of the study, who lack job experience, will be rated higher than in a firm with a smaller share of workers under age 25. One of the two largest effects among the firm characteristics (and one that was consistent across the sample) was the percentage of the work force under age 25. The average marginal effect for the sample (.17) translates into an applicant receiving a 7 point higher rating at a firm

TABLE 16

MARGINAL EFFECTS OF FIRM CHARACTERISTICS ON EMPLOYABILITY RATINGS

Variable	Full Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Employment size[a]	.24	.89*	1.45	- .18
Percentage of work force under age 25	.17***	.20***	.25***	.11***
Firm has no formal probationary period	- 6.41***	-12.18***	-11.90*	2.11
Length of formal probationary period (weeks)	- .13	- .20	- .17	.06
Average rate of vacancies/week	.14***	- .04	.07	.29***
Most of firm's training is General[b]	- .22	- .03	- 6.20	3.45**
Number of competing firms in area[b]	1.15	- 3.44	- 2.97	2.98*
Percentage of workers not separated at the end of 2 years	- .90*	- 1.33*	- 8.40	- .02
Percentage of reasonably well qualified applicants	.13***	.09***	.21**	.17***

[a]Categorical variable from small to large.

[b]Dummy variable set to one if respondent reports that "all" or "most" skills taught on the job are useful outside the firm.

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

where 50 percent of the work force was under age 25, than at a firm where only 10 percent of the employees were under age 25. This compares with an average marginal effect of 9 points for graduation from high school.

Whether or not a firm has a formal probationary period or not and the length of such a period if it does have one may affect the care that raters exercise in assessing applicants. If there is a formal probationary period, employers can accept more risk and thus ratings may be higher. As the probationary period lengthens, the firm's investment in the new hire increases and so higher standards should be used; that is the sign of the marginal effect of the length of the probationary should be negative.

The probationary period effects were an instance where machine trades employers behaved quite differently from the remainder of the sample. Having no formal probationary period was negative and significant both for the clerical and retail sample and for the equation estimated over the total sample. That is, having no formal probationary period caused caution to be exercised for these employers. As anticipated, the sign of the length of the formal probationary period coefficient was negative (although not significant) in these equations. On the other hand, the marginal effects for the machine trades sample were positive for "no probationary period" and positive for the length of the probationary period, although neither coefficient was significantly different from zero. A potential examination for the occupational differences is that the relatively higher proportion of unionization among machine trades employers causes the different behavior. No formal probationary period may be a proxy for nonunionization, and so the risk of a mismatch is lower when there is no formal probationary period.

In controlling for firm size, the number of vacancies that firms have should affect their assessments of job applicants as well. More vacancies imply that the firm will have higher costs in terms of lost production as jobs go unfilled, so they will tend to lower their hiring standards (i.e., ratings will be higher). Similarly, the employee separation rates that firms experience will influence applicants' employability ratings. Firms that have relatively high retention rates can afford to have tougher hiring standards, or the reverse causality may hold, tougher hiring standards lead to lower turnover.

The ratings of machine trades employers were particularly sensitive to the average number of vacancies that the firm had in a week, although neither the clerical nor retail employees had this sensitivity. Both of the hypotheses that employers offering training mostly of a general nature and those facing a relatively large number of competitive firms are more careful in screening applicants were contradicted by the estimate in the machine trades sample, where significant positive effects were estimated. Furthermore, although the signs of the estimated effects were correct for the other occupations, the parameters were not significantly different from zero.

Salop and Salop (1976) emphasize the importance of quit propensities of workers in firms' hiring behavior. If a firm tends to provide general training for its workers, and/or if there is a large number of competing firms in the labor market area, then it can be predicted that firms will be more cautious in their hiring to minimize potential quits.

The retention rate of firms (the percentage of workers hired 2 years ago who would still be with the firm) is negatively related to applicant ratings for employers of clerical workers as expected. Causality is uncertain because of the simultaneity in this relationship. Employers who are more careful in their assessments may hire workers with lower quit propensities, and lower separation rates mean lower rates of vacancies. Thus, employers can be tougher in their hiring standards.

Finally, if we treat the percentage of reasonably well-qualified applicants as an outcome measure of the firm's referral and hiring policies, then the positive (and significant) marginal effect on applicant ratings is to be expected. The average applicant, other things being equal, is given a more positive rating at a firm that feels it attracts well-qualified workers through a halo effect.

All in all, most of the hypotheses concerning firm characteristics and rating behavior were confirmed by the analysis, although distinct differences between machine trades employers and clerical or retail employers were noted.

5.4 Influence of the Rater Characteristics

The final group of variables that was included in the model incorporated personal characteristics of the individual respondents. The data that were gathered included the following covariates:

- Age (less than 30, 30-44, 45-54, 55+)
- Education
- Sex
- Race
- Position in the firm
- Job duties
- Hiring authority
- Firing authority
- Tenure in job
- Tenure in establishment
- Hiring experience in any job

The effects of each of these variables on the employability scores of applicants are presented in table 17. The different nature of hiring for machine trades jobs is (again) highlighted in the coefficient on whether or not the respondent is a member of the firms' personnel staff. Two hypotheses could be put forward as to why the rater's position in a personnel department would have a negative influence on applicant ratings. First of all, the personnel staff often processes a substantial number of applicants and may have to set tough standards with numerous signals in order to screen out undesirable applicants quickly. Furthermore, since their own job performance depends on how well applicants are received, they may have a direct incentive to set high standards. These hypotheses may explain the size and significance of the negative effect of this variable in the samples of clerical and retail applicants. In the machine trades sample, however, being a member of the personnel staff has a positive relationship with employability ratings. Here it may be the case that the personnel staff is less familiar with the requirements necessary for the job, or that there is greater labor demand, or that personnel staff view their function as presenting line supervisors with a wide choice of applicants.

The race variable was significant only in the sample of retail applicants, although the sign of the effect was positive for all occupations which tends to confirm prior evidence that blacks rate applicants higher than whites (recall that the applicants were supposed to be of the same race, although it was not specified).

TABLE 17

MARGINAL EFFECTS OF RATER CHARACTERISTICS ON EMPLOYABILITY

Variable	Total Sample	Clerical Applicants	Retail Applicants	Machine Trades Applicants
Sex (1= male)	1.99	2.06*	- 2.30	2.97
Race (1=black)	5.03***	.77	36.67***	4.74
Member of personnel staff	- .82***	- 7.40***	-10.36*	7.70***
Hiring authority	- 3.17*	1.52	- 4.70	- 9.01*
Firing authority	3.27	1.15	- 8.71	5.38*
Age[a]	1.33	1.18	- 2.12	4.70***
Education[a]	- .56	.11	- 5.29***	.15
Rater participated in hiring in any firm	.15*	.32**	.34	.04

[a]Categorical variable ranging from smallest to largest

* Significant at < .10 level.
** Significant at < .05 level.
*** Significant at < .01 level.

If the individual had full or shared responsibility for hiring staff, then tougher standards were applied, as might be expected. The reverse would be true for firing authority, since the respondent could bear the responsibility of any mismatches. This is the case for the machine trades sample, where the signs for the hiring and firing authority variables were opposite and both were significant.

The age of the rater had a positive effect on the employability ratings in the machine trades sample, whereas years participating in hiring processes (presumably highly correlated with age) had a significant, positive effect for clerical applicants. The educational attainment of the raters had essentially no influence on the applicants' employability assessments in the clerical and machine trades samples, but had a strongly negative relationship in the retail sample. The sex of the rater influenced ratings for clerical applicants (males rated applicants higher).

In the next chapter of this report, analyses of data of a more qualitative nature are presented.

6. EMPLOYER COMMENTS ABOUT HIRING YOUTH AND ABOUT EDUCATIONAL PREPARATION OF YOUTH

6.1 Introduction and Overview of Comments

The final section of the questionnaire was intended to give employers an opportunity to report their opinions about the educational preparation of applicants and about what skills and competencies schools should be teaching. Furthermore, it asked for general comments about experiences in hiring youth for entry-level jobs. Approximately 85 percent of the respondents answered an objective question about the preparation of young job applicants in certain school subjects, and approximately 50 percent of the employers supplied answers to open-ended questions about experiences in hiring youths and about skills and competencies schools should be teaching.

Several impressions were formed after reading through hundreds of opinions from these employers from all across the United States. For the most part, the comments were critical of applicants and schools. The three major areas of concern were (1) poor attitudes and work ethics among youths, (2) poor jobs search skills, and (3) inadequate preparation in basic skills. The fact that the comments were of a negative nature was not surprising. If you asked students for opinions about schools and employers, you would most likely receive numerous complaints, and if you asked school personnel about students and employers, there would probably be negative comments. But the intensity of the remarks, as well as their contents, suggests that there are a considerable number of mistakes made in the hiring process (mismatches, high turnover) that could be reduced with improvements in schooling and with the teaching of job search skills.*

A second impression was formed after classifying the complaints about basic skills deficiencies into two categories: (1) examples of deficiencies that affect job performance and (2) general opinions about inadequate basic skills. Most of the comments were of the second variety. The implications to

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*Using economic efficiency as a criterion requires that the benefits to society of improvements in schooling and instruction in job search skills in the form of higher productivity or lower search costs must exceed the social costs of the improvements in order for the policy to be sensible.

be drawn from each of these categories of complaints are quite different. Examples of job performance effects mentioned were inability to make change, inability to write dollar figures, inability to compute sales tax, inability to alphabetize, and unfamiliarity with fractions less than one-fourth. These effects could be quite costly to the firms, but what is more important, they could probably be corrected with more emphasis on basic skills in schools.

However, the impression is that there is "something to be read between the lines" of general opinions expressed concerning basic skills. It is difficult to interpret comments like, "Schools need to emphasize the basis," or "Teach the 3Rs" when it is not possible to probe further. It may be the case that these comments emanate from observing poor job performance as in the above examples. However, such comments may not really be addressing basic skills attainment per se. Basic skills achievement may be a signaling device for productivity or trainability and employers are concerned that declining trends in educational achievement may imply lower quality job applicants. Or basic skills may be a proxy for other less easily measured elements of employability. These types of interpretations are supported by a consideration of the carelessness, poor spelling, poor grammar, and poor handwriting observed in the questionnaire responses.* A few of the employers even indicated that the entry-level jobs in their firms did not require basic skills. To the extent that basic skills are signals and do not affect job performance directly, more emphasis on basic skills in schools alone may not bring about improvements in the productivity of youthful workers, but rather other employability skills such as work maturity and interpersonal abilities must be instilled.

A final impression that comes from reviewing the employers' comments is that perhaps much of the disenchantment with youths' attitudes and work ethic could be overcome with more interaction between schools and firms. When such interaction was mentioned in the respondents' opinions, it was invariably a positive experience. Cooperative education program participants were highly regarded. Work-study program participants also had an advantage over other high school students in terms of employability assessment. Of course, numerous other examples of successful education-industry interaction can be documented.

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*Over 40 responses (approximately 15 percent of those that answered the open-ended question) contained misspellings. Conservatively estimated, about 3 times that many were "sloppy."

In the next section of this chapter, data about the preparation of youth in terms of certain school subjects is analyzed. Then the comments made by employers are presented. While the comments have been organized in a particular fashion, they still represent a reasonably random sample of the comments received. For presentation purposes, they have been classified into the following categories:

- Comments about school experiences of youth
- Comments about job search skills
- Comments about attitudes and work habits

Summary remarks conclude the chapter.

6.2 Employer Opinions about the Educational Preparation of Youthful Applicants

Based upon their experiences with youth, employers were asked to indicate in which of the following areas of educational preparation applicants were typically well-prepared or not well-prepared:*

- Science
- English writing ability
- English verbal ability
- Mathematics
- Business preparation (bookkeeping, typing, etc.)
- Distributive or marketing vocational education
- Industrial vocational education (machine trades, woodworking, auto mechanics, etc.)

The only subject in which employers felt applicants were well prepared was industrial vocational education. The worst preparation reported in this survey was in English--writing ability. Here, more than 10 times as many employers felt preparation was inadequate as compared to those employers who felt applicatns were well prepared.

In table 18, the responses to the question are presented disaggregated by occupation. The percentages of respondents who felt that the applicants were well prepared, not well prepared, or who had no response are given in parentheses underneath each entry in the table. The conclusions drawn from the data in this table are as follows:

*In interpreting the responses to this question, two factors need to be borne in mind. First of all, "not well-prepared" may mean students have been poorly educated, or it may mean students have not taken enough courses. Second, the young applicants which machine trades employers have seen are likely to have been Vocational Education students, while the youths which clerical and retail employers have seen probably come from a variety of secondary school backgrounds.

TABLE 18

EMPLOYER OPINIONS ABOUT THE PREPARATION OF YOUTHFUL JOB APPLICANTS IN SEVERAL SUBJECTS

	Occupation											
	Clerical			Retail			Machine Trades			Total		
ect	Applicants Are Well Prepared	Applicants Not Well Prepared	No Response	Applicants Are Well Prepared	Applicants Not Well Prepared	No Response	Applicants Are Well Prepared	Applicants Not Well Prepared	No Response	Applicants Are Well Prepared	Applicants Not Well Prepared	No Response
nce	22 (8.7%)	73 (29.0)	157 (62.3)	7 (9.5%)	26 (35.1)	41 (55.4)	28 (11.3%)	121 (49.0)	98 (39.7)	57 (9.9%)	220 (38.4)	296 (51.7)
ish-writing ity	19 (7.5%)	208 (82.5)	25 (9.9)	6 (8.1%)	56 (75.7)	12 (16.2)	16 (6.9%)	192 (77.7)	39 (15.4)	41 (7.2%)	456 (79.6)	76 (13.3)
ish-verbal ity	56 (22.2%)	166 (65.9)	30 (11.9)	24 (31.1%)	34 (45.9)	17 (23.0)	53 (21.5%)	149 (58.7)	49 (19.8)	132 (23.0%)	345 (60.2)	96 (16.8)
matics	61 (24.2%)	133 (52.8)	58 (23.0)	17 (23.0%)	43 (58.1)	14 (18.9)	45 (18.2%)	152 (61.5)	50 (20.2)	123 (21.9%)	328 (57.2)	122 (21.3)
ess ration	130 (51.6%)	82 (32.5)	40 (15.9)	21 (28.4%)	33 (44.6)	20 (27.0)	92 (21.1%)	107 (83.3)	88 (35.6)	203 (35.4%)	222 (38.7)	149 (25.8)
ibutive tion	51 (20.2%)	83 (32.9)	118 (46.8)	17 (23.0%)	27 (36.5)	30 (40.5)	24 (9.7%)	122 (49.4)	101 (40.9)	92 (16.1%)	232 (40.5)	249 (43.5)
wrial voca- l education	64 (25.4%)	45 (17.9)	143 (56.7)	11 (14.9%)	20 (27.0)	43 (58.1)	112 (45.3%)	77 (31.2)	58 (23.5)	187 (32.6%)	142 (24.8)	244 (42.6)

es in parentheses are row percentages for each occupation.

- Science. Fewer than half of the employers gave an opinion about the preparation of the applicants in the field of science. Of those that did respond, there was little difference across occupations, with about three-quarters indicating applicants were not well prepared and one-quarter indicating applicants were well prepared.

- English--Writing Ability. Most (87 percent) of the employers gave a response about preparation in English writing ability. There was little difference across occupations; approximately 10 times as many employers reported that applicants were not well prepared as reported applicants were well prepared.

- English--Verbal Ability. Verbal ability is perhaps most important for retail jobs where employers must meet the public (also, of course, clerical jobs may have a reception component). It is interesting to note, therefore, that respondents in the retail trade sample were least critical of applicants' verbal ability. Among those respondents, over 30 percent indicated that applicants were well prepared and 45 percent indicated that applicants were not well prepared. For the other two occupations, the two percentages were approximately 20 percent and 60 percent, respectively.

- Mathematics. Mathematics preparation was rather severely criticized, with about 60 percent of the sample indicating that applicants were not well prepared, 20 percent that they were well prepared, and the remaining 20 percent providing no response. Machine trades employers were slightly more critical than clerical or retail sales employers. This is important because math is more important in that occupation than in the other two occupations.

- Business courses. Preparation in business courses fared well compared to the more academic courses discussed above. Overall, more employers felt applicants were poorly prepared in business courses (such as typing, bookkeeping, or accounting) rather than were well prepared. But an examination across the three types of applicants demonstrated that the largest relative share of the negative opinions were from machine trades' employers. However, in this occupation, skills learned in such classes are least important. Furthermore, the employers in the clerical sample who felt applicants were well prepared outnumbered employers who felt that applicants were not well prepared by a five-to-three margin.

- Distributive Education. A large percentage (40 percent) of the employers did not respond to this question, but for those respondents who did answer, the number that thought that applicants were not well prepared outweighed those that felt that applicants were well prepared in all three occupations. Again, the preponderance of responses indicating that applicants were not well-prepared came from employers who reviewed machine trades applicants.

- Industrial Education. The preparation received in industrial vocational education courses was apparently well thought of by employers. As might be expected, a high percentage (57.1 percent) of clerical and retail employers did not respond to this category, but of the employers who did respond, about 55 percent felt applicants were well prepared as opposed to 45 percent who indicated applicants were not well prepared. For employers of machine trades, 24 percent did not respond to the question, but of the remainder, almost 60 percent felt that applicants were well prepared in schools in vocational courses.

6.3 Comments about School Experiences of Youth

In turning to the responses to the open-ended question about experiences with young people, some statements are first provided where specific skills were mentioned (i.e., those referred to above as inadequacies that affect job performance).

> Younger youths [sic] seem to be weak in math and sometimes in writing ability, which is important in this line of work for a promotion.

> Most of the young applicants I see, including those with college degrees, are deficient in English language skills. This is particularly apparent in written work, in their use of grammar, punctuation, and spelling. Even if they have good typing skills, they can only be used for straight copy work. It is extremely difficult to find an applicant capable of training for a secretarial or word processing position. This is also [true] in management trainee positions.

> We've also tested persons having (they say) proofreading skills but they can't spell. In our business, mistakes are costly!!! A college education, in some cases, is a farce. For our entry-level jobs, a high school diploma is sufficient if the really desire to learn and work!!!

> Schools also need to prepare their students with courses which teach them skills which will enable them to "land" a job. I'm all for vocational training in addition to "the three Rs." We not only need people who know how to fix a leaky faucet, but we also need [for] those people to be able to spell properly on the bill which they present [to the customer]!

In a few jobs, staff must be able to write monetary amounts dictated by customers over the phone. Workers can't write amounts accurately. [This] can cost us vast errors and business [sic].

Since the students have poor spelling and simple math skills, they cannot compute sales tax and sales discounts.

Schools should teach skills that have a practical application in the workplace. I find that 90 percent of the high school grads cannot measure fractions . . . on a ruler smaller than 1/4."

Most bad experiences have been when the youth cannot do simple mathematical problems like making change, converting feet to yards, etc.

Basic mathematics--use of fractions--conversion from decimal to metrics--inability to read a 12 inch scale divided by 64ths and yet they are graduated.

General comments about deficiencies in basic skills were more common.

Get young people to be competent at basic reading, writing, speaking, and math skills. We can teach them the rest. We find that many of the high school graduates are unable to spell correctly or use correct grammar. Many are lost . . . when adding more than 2 + 2 in math.

Generally I am shocked at the lack of overall basic education; reading and writing skills are very poor in approximately 40 percent of all applicants [who come] in our door.

Young people entering the job market directly from high school are missing the basic fundamentals; we experienced this both in vocational training in machine shop and basic writing, reading, and math.

Many young people have not had the desire nor the urgency . . . to learn.

Reward young people for maintaining good attendance while in school; perhaps it [good attendance] will carry over into their business careers.

Counsel young people to take pride in their work, no matter what level of work [into which] they are placed.

I see very few youths coming directly out of high school who display the qualities I view essential for placement; oral communication skills, ability to spell, grammatical skills, etc. Also, these students do not know how to conduct themselves in an interview in a manner that will enhance their chances for employment.

> Generally, I have experienced better long term success with individuals with above average marks in a broad range of academic/athletic/vocational endeavors.
>
> Seemingly, more and more of the youth I have contact regarding employment have [a] difficult time communicating both in written and verbal forms.
>
> I believe schools should set higher standards and expect the best possible performance. Also, instructions on how to find a job including instruction on selling oneself should be taught.
>
> Schools should be putting more emphasis on dealing with people. We are a service organization (my bias), but based on our experiences, little or no thought has been given to dealing with the public and the proper attitude that requires.
>
> Get the educational system back to the basics. I feel strongly about the lack of knowledge young people have in simple subjects like math, English grammar, English composition, and spelling. I agree that industrial vocational classes are an important option but all students, no matter what career they choose, need to know the basics in math and communication skills just to fare well in society. Please do something to encourage more dedication in these subejcts.

A comment that buttresses the contention that employers' concerns with deficiencies in basic skills attainment may really be indicative of more general concerns about employability is the following:

> My experiences with hiring youth definitely lead me to believe that far too many of them are graduated from school with very poor education in just basic skills and fundamentals; namely, reading, writing, spelling, and math . . . it does not necessarily take these skills to handle a factory job such as ours, but it is disheartening to me to see kids coming out of school as graduates so poorly prepared.

Among the suggestions given by employers aimed at improving the educational process was that cooperation between schools and business should be increased. This includes input into curricula from business and active support from business in the form of cooperative programs (e.g., distributive education). Some of these comments follow:

> We have a strong work-study program with a local school. We give input to curriculum and state our needs. [The] program is successful. Other youth of [the] city [are] less prepared.

[We are] very pleased with students from cooperative work programs and most of the time they stay on.

Our best young employees come from the distributive education [curriculum area].

Co-op training should be mandatory so they [students] have a needed skill when entering the job market.

Co-op education provides an excellent start for young candidates; also volunteer experience is helpful.

Several employers indicated that schools should consider courses or modules on "Introduction to Business Practices." An example of such a comment follows:

> Penmanship of applicants on applications is terrible (misspelled words, incorrect punctuation, etc.). I feel that grade and high schools should concentrate on the 3 Rs. Upon satisfactory completion of that, they should be taught employability skills (i.e., various office equipment such as typewriter, dictaphone, telephone, computer). I also feel the schools should have a course entitled, "Job Situations." Have the students participate (in the classroom) in various actual job situations and [learn] how to properly handle them, (i.e., what does a receptionist tell a caller if the person they wish to see does not want to see them). Also, [students should learn] how to handle themselves during the actual interview.

An employer in the machine trades occupation commented on vocational education and youth:

> Youth should be encouraged to learn skilled trades versus attending college when the individual shows strong aptitude for skilled trade work. Secondly, it is imperative that high schools, in particular, redirect their thinking that industrial education classes are for slow learners or underachievers. I know many bright high school students who wanted to place major emphasis on taking shop classes in high school to learn a skill and were not encouraged to do so and were reluctant [to do so] due to the poor stigma attached. One of the most significant fallacies of our current educational system is the belief that more education for the sake of education is good. It is not. Focused education to gain specific results in preparing youth for jobs is what is good. All one needds [to] do is look at the excellent focused educational systems in trades, technical, etc., as exists in England, for example.

6.4 Comments about Interviewing and Application Preparation Skills

A complaint that many respondents felt schools could help correct was the poor performance of young people in filling out applications and in interviewing. These areas are important because, if unsuccessful at this stage, a young job seeker will be unable to display his or her merit as an employee. Some comments were as follows:

> Is there any way to teach interviewing skills? Most of the younger applicants are unable or unwilling to converse. Yes or no answers abound. Also, many dress improperly to work in a business environment.
>
> My initial reaction to young applicants is one of enthusiam until they appear with their shirt untucked and [wearing] tennis shoes. I would say 95 percent of the young applicants have never been instructed in interview etiquette. The simplest areas are overlooked (i.e., a handshake, thank-you note for the interviewer).
>
> Applicants are not well trained in applying for positions as evidenced by their manner of approach and dress.
>
> "I'm looking for anything" is a typical statement while the standard dress is jeans, cut especially short in the summer months.
>
> Completion of applications also leaves much to be desired. Many Many items are omitted or partially answered. Handwriting often is difficult to read.
>
> The interviewing process could also be improved upon while [students are] in school, stressing direct pertinent answers and thoughtful, relevant questions.
>
> Young people as a group do not have--
>
> - strong training in how to apply for a job (very poor writing, spelling, and speaking),
> - records to fill out job applications,
> - good dressing and grooming habits or very good verbal skills,
> - the first idea about applying for a job--let alone having any ability to communicate via the job application or the interview.
>
> Most [youths] do not know how to conduct themselves during an interview (i.e., personal presentation, poise, etc.), which could be lack of interviewing experience.

They [youths] do not know how to fill out an application properly. They fail to present themselves positively in an interview and are poorly attired.

A legible thoroughly completed application with no grammatical, punctuation, or spelling errors is crucial.

6.5 Comments about Attitudes and Work Habits

A large percentage of employers making comments about their experiences with young workers in entry level jobs expressed concern over the poor attitudes exhibited by young people while at work. These comments included references to poor employee work habits, motivation, and responsibility. These characteristics include problems with workmanship, customer interaction, absenteeism, and tardiness.

Comments of a general nature about employee attitude include the following:

The attitudes of many of the young employees cause the most problems—absenteeism, disregard for company policies concerning dress, personal calls, tardiness, etc. Even though the company pays up front and in full, tuition of industry-related seminars and at college of choice, few take advantage of the offer. (The majority are still living with parents and have no dependents.)

They [youths] do not know what they want to do with their lives. Generally, they have no skills. They must want the money to go play. No one should graduate without being able to read and write. Students do not respect their parents or teachers so they do not respect employers.

In general, today's youths are not prepared for the daily "realities" of the business world (e.g., the necessity to be punctual, minimal absences, following instructions, meeting deadlines, demonstrating initiative, grooming/dressing to fit the mode of a particular industry). Many want top earnings before they are adequately able to perform their assigned functions. There is also concern over job titles that appropriately define functions but considerable resistance to being considered "only a clerk."

Unfortunately, more than 50 percent are not prepared for the work world. They are satisfied with mediocre performance, are not used to a structured, performance-conscious environment. Usually [they are] not self-starters--with very little self-motivation.

[The] problem is often a lack of maturity. Often they do not realize what will be expected of them in "making a living." [Youths] need better skills in [the] ability to think and reason for themselves.

If I were an educator, I should be most concerned with ATTITUDE (i.e., the loss of a sense of pride in a job well done, the acceptance of mediocrity, the scarcity of intellectual curiosity). I would rather that you send me an open, eager, inquiring mind . . . rather than a body that has satisfied distributive requirements and X number of C.U.'s!!

Youth for entry-level jobs in unskilled or semiskilled areas generally lack job commitment, good work habits of punctuality and attendance, and clear sense of job interests or goals. Exceptions to the above typically would be the college bound or well-trained secretarial/stenographic students.

Many employer responses that indicated dissatisfaction with young applicants mentioned policies or characteristics they used to screen young applicants. Among these comments were the following:

We much prefer to hire young people with prior experience. Some of the stars are out of their eyes; they have made their initial job moves trying to find their "thing," and they have started to recognize a paycheck requires work.

Rather than specific job skills or educational training, we try to identify people who can be depended upon, [who are] willing to learn, [who are] not blind followers, and [who are] willing to accept responsibility. The school-family environment does not instill these basic values, let along [teach] them A, B, C's.

We look for enthusiasm and desire to work. Today a young person can be outstanding by just wanting to work.

We look for people who want to work, have good work habits, get along with people, and appreciate a job. Honesty, loyalty, and responsibility we also must have.

Several employers in the sample mentioned that they do not hire young people or are reluctant to do so. The reason given had to do primarily with young employees' immaturity and inexperience. Three such comments were as follows:

In any position that we may have available, we are looking for maturity, experience, and job stability. In general, young people seem to be lacking in all these areas.

> We now generally avoid hiring young people. We have found that by hiring older workers who are desperately in need of jobs because they have families, financial responsibilities, and are permanently laid-off from companies that are closing or have closed their facilities, we can (1) avoid training costs, (2) avoid absenteeism costs, (3) select the best employees of closing companies through the cooperation of a personnel management network that exists in our area and comes with very high recommendations, (4) avoid turnover since older workers stay with our company, looking for a good solid base [in which] to work until retirement, (5) avoid worker's compensation claims since our older workers tend to be more safety conscious, (6) avoid labor relations problems since older workers tend to respect authority more, desire job security, and look toward retirement and a pension, and (7) gain from their experience and knowledge. Maturity and responsibility are worth dollars.

A number of employers expressed dissatisfaction with the absenteeism and tardiness of young employees on the job. In addition to those above, here are some additional comments:

> The work ethic of present day youths seems unhealthy. Our younger employees seem to miss the most work for--
>
> - "It was raining."
> - "It was too hot."
> - "I didn't feel good."
> - "I didn't sleep well last night, so I won't be in today."
>
> [Emphasis should be placed on] development of personal discipline (work ethic). The importance of being at work on time and daily.

In addition to the poor attitudes of young employees, several employers commented that they believe young people should show more appreciation for the free enterprise system and the employer's concept of the work ethic that is entailed. Specific comments are these:

> Many have a poor attitude toward regular attendance, some a poor attitude and lack of understanding regarding competitiveness at business--feel raises [should be] automatic, [that] money [is] available for latest equipment, tools, air conditioning. [They think the] company owes them the best of everything regardless of competitive position.
>
> People who realize [the] company must make a profit for all to succeed are also a plus.
>
> Many do not seem to appreciate that we strive for a linear relationship between productivity and compensation. Many seem to anticipate "automatic" job security and wage increases. We have no firm estimate of the portion who do so, but are struck by the subjective impression that "too many" hold such expectations.

> Many of the youths in today's market are not willing to expend extra effort in performing job duties--always take the easiest way out. [They] don't understand responsibility to the employer.

> Many youth have not learned the work ethics. They feel to show up and put in time is doing a satisfactory job. Many youths have not learned that rewards will come after you show you are worth it rather than "reward me, then I will produce."

Two employers, unlike almost all others, found the quality of young employees to be good, although they qualified their assessments:

> Generally, the caliber of young people we hire is high. They seem to have taken advantage of educational opportunities offered them. Their commitments are not well established and sometimes tardiness and absenteeism are problems.

> We have found young employees to be some of the best employees that we have. They are dependable, eager to learn and delightful to work with. The schools should be teaching them more of the 3 Rs. We have had some part-time 17-year-olds that do not even know the alphabet.

The testimony of the employers in this survey thus seems to correspond to some of the related research findings discussed earlier. The three major problems with youthful applicants and workers are--

- poor work habits and poor work ethics,
- poor job search skills, and
- poor attainment of basic skills.

Some specific suggestions for schools to pursue include--

- instruction in business practices (work situations),
- more emphasis on basic skills, and
- higher performance standards.

The relatively positive comments about vocational education and employer-school joint efforts such as cooperative education or other work-learning programs indicate that these aspects of learning should be expanded in the effort to improve schools.

7. SUMMARY OF FINDINGS

The primary purpose of this study was to compare various educational and work experience characteristics that youth may possess in terms of their attractiveness to employers who hire entry-level clerical, retail trade, and machine trades workers. As such, most of the conclusions and findings are aimed at youths, parents, and guidance counselors. However, in the course of analyzing the data, findings relevant to employers and school administrators emerged; therefore, this chapter is organized into sections categorized by three audiences: youths, parents, and guidance counselors, employers, and school administrators and policymakers.

7.1 Findings Relevant to Youthful Job Applicants, Parents, and Guidance Counselors

The results of this study confirm that employers exhibit rather consistent behavior in their hiring decisions. Youths should be aware of this consistency, but beyond that [illegible]eterization of employer behavior estimated in this study can be used [illegible] in making choices about their use of time and resources.

Early in a youth's high school career (ages 14 to 15), choices are typically limited and thoughts about the impact of these choices on getting a job or concerning the ease or difficulty of entering a career are, most likely, not preeminent in the decision-making process. With this perspective in mind, the finding from this study that is most germane to these youths is that, among the educational characteristics that a youth may possess, high school grade point average is the strongest causal variable in influencing the probability of getting a job. Grades in the early years affect the overall grade point average directly and also may influence curriculum choice and school performance in later years.

As youths progress through high school (ages 16 to 17), more educational and part-time work experience choices are made and the impacts of these choices need to be considered. In terms of curriculum choice, results from the study show that machine trades employers are influenced positively by an applicant's participation in a machine trades (vocational) program of study

in high school. Employers of clerical or retail workers, however, apparently place less emphasis on the high school major and are not really influenced one way or another by an office or distributive education curriculum, vis-a-vis a general or college preparatory curriculum. On the other hand, all employers tended to give preference to participants in a relevant cooperative service or experiential educational program.* Youths who have made a career determination and who have an opportunity to participate in a ... of these types of educational program in their field of interest are well advised to pursue that opportunity.

Youths in this age group also face the decision of whether or not to work part-time and/or during summers while in high school. Having no previous work experience to list on an application is a severe disadvantage for a youthful job applicant according to results from this study. But the findings indicate that working part-time during school months confers only a slight advantage as compared to work during summers only. In making decisions about part-time work, a high school student should be aware of how important grades are as a screening device used by employers. Thus, the findings indicate that if part-time work during the school year jeopardizes grades, it is most advantageous from a employability perspective to work during summers only.

The place or type of previous employment was found to be very important in determining employability ratings. Relevant prior work experience was an important positive factor in determining employability ratings. If one of two otherwise ideal job applicants had 40 percent of his or her job experience in relevant jobs, while the other had all prior work experience in relevant jobs, the former's predicted rating would be much lower. (Prior work experience in relevant jobs has approximately the same effect as high school graduation on employability ratings.)

Work experience in large organizations also had a positive effect on employability ratings. Work experience in a public (or governmental) organization, on the other hand, had a significant, negative marginal effect on a rating. Finally, work experience in a fast-food restaurant was one of the

*The computer algorithm used to generate applications sometimes resulted in clerical applicants having participated in a cooperative distributive education program and retail sales applicants having a cooperative office educational experience. These would be irrelevant cooperative education programs.

most positive influences of employability ratings for retail employers. If a youth had weak prior job experience, employers suggested he or she list baby-sitting or yard work experience to demonstrate past job responsibility.

Employers, particularly those assessing clerical applicants, reacted negatively to a large number of prior jobs held. Having held a large number of jobs can be interpreted as a signal of a high turnover propensity, which is presumably a negative trait. The total number of months working was not significant in the equations, implying that employers tended to count the number of prior jobs for which information is provided, but did not weigh heavily the duration of the jobs.

Although in the qualitative data and in other studies employers reported preferences for training new workers on their specific equipment, this study found that having high levels of occupationally specific skills add significantly to a job applicant's employability. For employers searching for clerical workers, an increase in typing speed of 10 words per minute offsets a competitor's advantage of having attended a postsecondary school. Similarly, the number of machines an applicant can competently operate was a significant positive factor for machine trades applicants.

Not directly tested or confirmed in this study, but mentioned a number of times in Columbus data collection, is evidence that extracurricular activity involvement is seen by employers as a positive signal in their assessments of job applicants. Again, youth need to consider the impact of such involvement on their grade performances, but they also need to realize that extracurricular activities are considered in a positive fashion by employers.

As youths get to the age of completing high school (ages 18 to 19), some may be considering whether or not to complete high school while others may be considering whether or not to attend a postsecondary institution. Completion of high school was found to be a key variable, as might be expected. However, the results reported here and in Hollenbeck's work (1984) indicate that employers will consider hiring dropouts. Such individuals can overcome the disadvantage of lacking a high school diploma by demonstrating good work habits, relevant work experience, or high occupational skill levels.* Quoting one employer,

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*Of course, high school graduates who demonstrate good work habits, relevant work experience, or high occupational skill levels are preferred to dropouts.

We prefer, of course, a high school diploma, but work experience has certain advantages over the completion of education.

As far as postsecondary training is concerned: attending a 2 year or technical postsecondary school is weighed positively by employers, but completion of a program and the relevance of the program are the key signals that employers use in assessing applicants. Grades and choice of institution were analyzed to be of far less importance, and in fact, attending a 2 year or technical postsecondary institution, but pursuing a course of study not relevant to the job for which the applicant is applying reduces employability.

The final set of results of interest to youths concerns the job search process itself. First, the hypothesis that eligibility for TJTC stigmatizes an applicant was not borne out by the analyses. In fact, such eligibility had a significant positive influence for, and thus, should be advertised by clerical applicants.

Second, neatness on the application form (and in cover letters) is one of the most important variables that employers use in screening applications for interviews. Third, interview behavior is crucial in the job search process. Analyses of the data and discussions with employers indicate how easy it is for a young person to lose employability advantages that have been painstakingly earned through hard work in high school or part-time jobs by not being punctual, by dressing inappropriately, or by using inappropriate grammar in an interview. Signals of a bad attitude that employers noticed were negative comments about a previous employer or teacher, or being overly ambitious--expecting rapid promotions or to own one's own business. Presenting a neat, full resume, and exhibiting appropriate behavior at an interview can be accomplished with minimal effort in time and resources.

7.2 Findings Relevant to Employers

In formulating their recruitment and hiring strategies, firms must make resource allocation decisions and be concerned about the profitability of their actions. Large firms and firms that have been in existence for a long time have made numerous hires and their decision-making process has withstood the test of the marketplace. In fact, an underlying assumption of this study is that employers' hiring decisions are consistent enough that we can generalize from the behavior of a small number of employers who were observed to a larger population.

The findings of this study and its predecessor, a study of employers in Columbus, Ohio, that may be of interest to employers are as follows:

- To the extent that we were able to control other variables, the personal characteristics of the application reviewer influenced significantly the employability rating assigned to the applicant. Males, blacks, and older individuals tended to rate higher the youths they were asked to assess.
- With almost unanimity, employers who had experience with cooperative education students were enthusiastic about the experience and if a hire ensued, were pleased with the outcome.
- An interviewer's assessment of an applicant's work experience and education is partially determined by how the youth handles the interview. Two job applicants with identical prior employment histories and education will be perceived quite differently if they exhibit different interview behavior.
- Despite protestations about the unreliability of and difficulty of getting reference checks, large percentages of employers reported making such checks. When one considers how little it costs to make a reference check and how expensive a hiring mismatch can be, it seems that pursuing them is an efficient and recommended personnel policy.
- The starting wage, the cost of equipment that new workers use, and the difficulty that a firm faces in dismissing workers seem not to affect the caution exercised in rating job applicants.

7.3 Findings Relevant to School Administrators and Policymakers

A secondary purpose of the study was to be a conduit for communication between employers and schools, particularly in the area of employability development. It is important for schools to take employers' opinions into account, for the economic success and job security students are going to depend on the degree to which they are able to fulfill employers' expectations. As reported in the chapter presenting qualitative data, employers did have some positive suggestions. Most of these were along the lines of increasing employer and school involvement and cooperation.

School administrators should be aware of the emphasis that employers put on grades as a signal for productivity and the rising concern that the nexus between achievement and grades may be weakening. The numerous comments about deficient basic skills and poor work habits suggest that employers are strong advocates of educational movements toward improving basic skills and of tougher performance standards.

Two suggestions about curricula changes or improvements were that job search skills should be taught and that youths should come to the labor market with some awareness about business organizations and management principles. In response to the adequacy of preparation in various subject areas, there seemed to be a desire for broader student background in marketing or distributive education classes. In general, there was employer support for vocational education courses, and in some cases, a desire for even stronger vocational programs.

The results from the study show that reputation or location of a school can influence an employer's perception of a youth. Clerical employers gave a rating advantage to urban and parochial school students in comparison to suburban (or rural) school students, while machine trades employers behaved in a precisely opposite fashion. School officials need to be aware of these reputational factors as they develop and place students into cooperative work/learning situations.

In short, school leaders need to be cognizant of employment outcomes for students as they develop and implement curricular, instructional, and organizational changes. A lack of awareness may result in their students entering the labor market at a disadvantage. The key questions to be addressed are can and how can work maturity skills be taught and strengthened in secondary and 2 year or technical postsecondary settings.

APPENDIX A

EXHIBITS OF MATERIALS USED IN EMPLOYER HIRING DECISIONS SURVEY

EXHIBIT A-1: LISTING OF POSSIBLE APPLICANT CHARACTERISTICS AND PROBABILITIES FOR USE IN GENERATING JOB APPLICATIONS

Characteristics of Applicants That were Varied	POSSIBLE CHARACTERISTICS FOR DIFFERENT APPLICANT GROUPS							
	High School Dropout	P	High School Graduate	P	1 Year Postsecondary School	P	2 Years Postsecondary School	P
1. Age	a. 17	.20	a. 17	.20	a. 19	.10	a. 19	.10
	b. 18	.60	b. 18	.60	b. 20	.70	b. 20	.70
	c. 19	.20	c. 19	.20	c. 21	.20	c. 21	.20
2. High School Attended	a. Central High School	.50	a. Central High School	.50	a. Central High School	.50	a. Central High School	.50
	b. Jeffersonville High School	.30	b. Jeffersonville High School	.30	b. Jeffersonville High School	.30	b. Jeffersonville High School	.30
	c. St. Mary's High School	.20	c. St. Mary's High School	.20	c. St. Mary's High School	.20	c. St. Mary's High School	.20
3. High School Grade Average	[1.40 - 3.60]	--	[1.40 - 3.60]	--	a. [1.40 - 3.60]	--	[1.40 - 3.60]	--
4. High School Major/Program	a. General	.15	a. General	.15	a. General	.15	a. General	.15
	b. Office Education	.15	b. Office Education	.15	b. Office Education	.15	b. Office Education	.15
	c. Distributive Education	.15	c. Distributive Education	.15	c. Distributive Education	.15	c. Distributive Education	.15
	d. College Preparatory	.15	d. College Prep	.15	d. College Preparatory	.15	d. College Preparatory	.15
	e. Cooperative Office Education (COE))	.15	e. Cooperative Office Education (COE)	.15	e. Cooperative Office Education (COE)	.15	e. Cooperative Office Education (COE)	.15
	f. Cooperative Distributive Education	.15	f. Cooperative Distributive Education	.15	f. Cooperative Distributive Education	.15	f. Cooperative Distributive Education	.15
	g. Occupational Work Experience (OWE)	.10	g. Occupational Work Experience (OWE)	.10	g. Occupational Work Experience (OWE)	.10	g. Occupational Work Experience (OWE)	.10
	For Machine Trades:		For Machine Trades:		For Machine Trades:		For Machine Trades:	
	a. General	.25	a. General	.25	a. General	.15	a. General	.15
	b. Machine Trades	.25	b. Machine Trades	.25	b. Machine Trades	.25	b. Machine Trades	.25
	c. Cooperative Machine Trades	.25	c. Cooperative Machine Trades	.25	c. Cooperative Machine Trades	.25	c. Cooperative Machine Trades	.25
	d. OWE	.25	d. OWE	.25	d. OWE	.25	d. OWE	.25
5. High School Diploma/Degree	a. No	1.00	a. Yes	1.00	a. Yes	1.00	a. Yes	1.00
6. Postsecondary School Attended	a. None	--	a. None	--	a. Franklin County Community College	.34	a. Franklin County Community College	.34
					b. Lincoln Technical Institute	.33	b. Lincoln Technical Institute	.33
					c. Acme Business College	.33	c. Acme Business College	.33
					For Machine Trades:		For Machine Trades:	
				--	a. Franklin County Community College	.50	a. Franklin County Community College	.50
					b. Acme Technical Institute	.50	b. Acme Technical Institute	.50

Exhibit A-1--Continued

Characteristics of Applicant that were varied	POSSIBLE CHARACTERISTICS FOR DIFFERENT APPLICANT GROUPS							
	High School Dropout	P	High School Graduate	P	1 Year Postsecondary School	P	2 Years Postsecondary School	P
7. Postsecondary Grade Average	Not Applicable	-	Not Applicable	-	a. (2.00 - 3.50)	-	a. (2.00 - 3.50)	.10
8. Postsecondary	Not Applicable	-	Not Applicable	-	a. Clerical b. Marketing For Machine Trade jobs, used Machine Trades	.50 .50	a. Clerical b. Marketing For Machine Trade Jobs, used Machine Trades	.50 .50
9. Postsecondary Diploma/Degree	Not Applicable	-	Not Applicable	-	a. No	1.00	a. Yes	[illegible]
10. Employer(s)	a. Large Manufacturing Firm b. Small Manufacturing Firm c. County Govt. Office d. Large Department Store e. Boutique f. Fast-Food Restaurant g. Janitorial Service h. City Hospital i. No employer--did not work For Machine Trades: -Boutique was deleted -County Government Office was replaced by County Government Maintenance Department -Janitorial Service was replaced by Service Station	*	a. Large Manufacturing Firm b. Small Manufacturing Firm c. County Govt. Office d. Large Department Store e. Boutique f. Fast-Food Restaurant g. Janitorial Service h. City Hospital i. No employer--did not work For Machine Trades: -Boutique was deleted -County Government Office was replaced by County Government Maintenance Department -Janitorial Service was replaced by Service Station	*	a. Large Manufacturing Firm b. Small Manufacturing Firm c. County Govt. Office d. Large Department Store e. Boutique f. Fast-Food Restaurant g. Janitorial Service h. City Hospital i. No employer--did not work For Machine Trades: -Boutique was deleted -County Government Office was replaced by County Government Maintenance Department -Janitorial Service was replaced by Service Station	*	a. Large Manufacturing b. Small Manufacturing Firm c. County Govt. Office d. Large Department Store e. Boutique f. Fast-Food Restaurant g. Janitorial Service h. City Hospital i. No employer--did not work For Machine Trades: -Boutique was deleted -County Government Office was replaced by County Government Maintenance Department -Janitorial Service was replaced by Service Station	[illegible]
11. Position(s)	a. Office Helper b. Sales Helper c. Food Service Helper d. Cleaner e. Attendant f. Machinist Helper	**	a. Office Helper b. Sales Helper c. Food Service Helper d. Cleaner e. Attendant f. Machinist Helper	**	a. Office Helper b. Sales Helper c. Food Service Helper d. Cleaner e. Attendant f. Machinist Helper	**	a. Office Helper b. Sales Helper c. Food Service Helper d. Cleaner e. Attendant f. Machinist Helper	**

*Drawn at random for each job.
**Dependent on employer selection.

Characteristics of Applicants That were Varied	POSSIBLE CHARACTERISTICS FOR DIFFERENT APPLICANT GROUPS High School Dropout	p	High School Graduate	p	1 Year Postsecondary School	p	2 Years Postsecondary School	p
12. Job Duties Corresponding to Job Position (11 above)	a. Filed records, sorted and delivered mail, answered phones b. Stocked shelves, showed products to customers, put prices on goods c. Prepared soft drinks, sandwiches, served food, cleaned/reset tables d. Serviced rest rooms, cleaned floors and windows, did minor repairs e. Attended gas pumps, helped merchants, did cleanup work f. Helped skilled operator, stacked materials, did cleanup work	**	a. Filed records, sorted and delivered mail, answered phones b. Stocked shelves, showed products to customers, put prices on goods c. Prepared soft drinks, sandwiches, served food cleaned/reset tables d. Serviced rest rooms, cleaned floors and windows, did minor repairs e. Attended gas pumps, helped merchants, did cleanup work f. Helped skilled operator, stacked materials, did cleanup work	**	a. Filed records, sorted and delivered mail, answered phones b. Stocked shelves, showed products to customers, put prices on goods c. Prepared soft drinks, sandwiches, served food cleaned/reset tables d. Serviced rest rooms, cleaned floors and windows, did minor repairs e. Attended gas pumps, helped merchants, did cleanup work f. Helped skilled operator, stacked materials, did cleanup work	**	a. Filed records, sorted and delivered mail, answered phones b. Stocked shelves, showed products to customers, put prices on goods c. Prepared soft drinks, sandwiches, served food cleaned/reset tables d. Serviced rest rooms, cleaned floors and windows, did minor repairs e. Attended gas pumps, helped merchants, did clean-up work f. Helped skilled operator, stacked materials, did cleanup work	**
13. Type of Work History	a. None b. Steady c. Intermittent	.10 .60 .30	a. None b. Steady c. Intermittent d. Summers Only	.30 .20 .20 .30	a. None-None b. None-Steady c. None-Intermittent d. Steady-Steady e. Steady-Intermittent f. Intermittent-Steady g. Intermittent-Intermittent h. Summers Only-Steady i. Summers Only-Intermittent	.10 .15 .05 .10 .10 .10 .10 .20 .10	a. None-None b. None-Steady c. None-Summers d. Steady-Steady e. Steady-Intermittent f. Intermittent-Steady g. Intermittent-Intermittent h. Intermittent-Summers i. Summers-Steady j. Summers-Summer	.05 .15 .10 .10 .10 .05 .10 .05 .20 .10
14. Reason for Leaving Jobs	a. Quit b. Was laid off c. Left for better job d. Left to look for full-time job e. Was temporary job	***	a. Quit b. Was laid off? c. Left for better job d. Left to look for full-time job e. Was temporary job f. Went back to school	***	a. Quit b. Was laid off c. Left for better job d. Left to look for full-time job e. Was temporary job f. Went back to school	***	a. Quit b. Was laid off c. Left for better job d. Left to look for full-time job e. Was temporary job f. Went back to school	***
15. Number of Jobs and Spells of Unemployment	[0-3]	***	[0-3]	***	[0-5]	***	[0-5]	***
16. Referral Source	a. Job Service b. School Counselor c. Advertisement/Sign d. Unknown or No Referral e. Friend/Acquaintance at Firm	.20 .20 .20 .20 .20	a. Job Service b. School Counselor c. Advertisement/Sign d. Unknown or No Referral e. Friend/Acquaintance at Firm	.20 .20 .20 .20 .20	a. Job Service b. School Counselor c. Advertisement/Sign d. Unknown or No Referral e. Friend/Acquaintance at Firm	.20 .20 .20 .20 .20	a. Job Service b. School Counselor c. Advertisement/Sign d. Unknown or No Referral e. Friend/Acquaintance at Firm	.20 .25 .20 .20 .20
17. Eligible for TJTC	a. Yes b. No	.50 .50	a. Yes b. No	.50 .50	a. Yes b. No	.90 .90	a. Yes b. No	.90 .90
18. Tested Typing Speed (Clerical/Retail)	[40-63]	--	[40-63]	--	a. [40-60]	--	[40-60]	--
19. Machines Operated (Machine Trades)	a. None	1.00	a. None b. Lathe c. Grinder d. Drill e. Milling f. Boring Mill g. Saw h. Shaper	****	a. None b. Lathe c. Grinder d. Drill e. Milling f. Boring Mill g. Saw h. Shaper	****	a. None b. Lathe c. Grinder d. Drill e. Milling f. Boring Mill g. Saw h. Shaper	****

** Dependent on employer selection.

*** Dependent on type of job history.

**** p = .33 "None."
p = .33 "Boring mill, saw, shaper."
p = .34 "Lathe, grinder, drill press, milling machine, boring mill, saw, shaper."

INITIAL COVER LETTER

OSU

The Ohio State University

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
Columbus, Ohio 43210

Phone: 614-486-3655
Cable: CTVOCEDOSU/Columbus, Ohio

June 10, 1983

Dear

As an employer, you realize the high costs of employee turnover and the importance of finding applicants with skills and knowledge which match your requirements. But in fact, research is showing a greater and greater imbalance between the skills which employers need and the skills which youth and other labor market entrants are bringing to the market. As part of a study to find ways to reduce this imbalance, the National Center for Research in Vocational Education would like you to participate in a study which will enable you to convey what skills, knowledge, and attitudes you believe schools should be teaching youth in order to get and hold a job.

Questions that we are trying to answer include:

- What is the effect of not completing high school on employer's rating of a job applicant?
- What is the effect of various types of vocational education, of attending a parochial high school, of attending a suburban high school, of a low grade point average?
- What is the effect of long periods of unemployment or of a tendency to stay in jobs for only a short time?
- What is the effect of types of previous work experience?

What we learn from you will be provided to schools through workshops and articles in journals read by teachers and counselors.

We would like you to participate by taking twenty to thirty minutes to complete the enclosed questionnaire. This involves reviewing job applications of hypothetical candidates and providing a hiring index.

After completing the application ratings, please answer the few questions that we have included about you and your firm's hiring process and use the enclosed prepaid envelope to return the questionnaire. Your voluntary participation in this study will be most appreciated and all information you provide will be kept confidential. The responses you give will be used to prepare statistical totals and will not be identified with you or your organization. To be of use in the study, we need to have your response by August 1, 1983.

If you have any questions concerning this study, please feel free to contact me at our toll-free number 1-800-848-4815. Thank you.

Sincerely,

Kevin M Hollenbeck

Dr. Kevin Hollenbeck

The Ohio State University

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
Columbus, Ohio 43210

Phone 614-486-3655
Cable CTVOCEDOSU/Columbus, Ohio

EXHIBIT A-3
COVER LETTER FOR FIRST FOLLOW-UP
FOR SUBSAMPLE OF NONRESPONDENTS
RECEIVING QUESTIONNAIRE FOLLOWED
BY TELEPHONE CONTACT

August 22, 1983

Dear Employer:

As part of our study on employer hiring decisions, we randomly selected your firm for our sample and sent you a questionnaire to complete. As of now, we have not received your reply. We are sending you a second copy and ask you to please complete it and return it as soon as possible.

As you are aware, high levels of youth unemployment, job turnover, and inadequate educational preparation are major national problems. You and other employers are in a strategic position to best understand many of these problems. With your help, we hope to get schools to do a better job of preparing youth for jobs such as the ones you offer.

We would like you to participate by taking twenty to thirty minutes to complete the enclosed questionnaire. This involves reviewing job applications of hypothetical candidates and providing a hiring index.

After completing the applications ratings, please answer the questions that we have included about you and your firm's hiring process and use the enclosed prepaid envelope to return the questionnaire. Your voluntary participation in this study will be most appreciated and all information you provide will be kept confidential. The responses you give will be used to prepare statistical totals and will not be identified with you or your organization.

If you have any questions concerning this study, please feel free to contact me at our toll-free number 1-800-848-4815. Thank you.

Sincerely,

Kevin Hollenbeck
Project Director

Enclosure

KH/caj

September 14, 1983

EXHIBIT A-4

INSTRUCTIONS FOR TELEPHONING EMPLOYERS

1. The purposes of the phone contacts are to (1) determine whether the employers have received a copy of a questionnaire recently mailed to them as part of a study of employer hiring practices and (2) solicit a response from them, if they have received it. I would like you to pursue the contact aggressively enough so that you feel confident that you are getting a truthful answer and are not being put off.

2. The questionnaires were directed for the most part to company presidents or chief executive officers, who may respond that they don't have the time or interest to complete the survey. Ask them if there is another individual in the firm who could respond. My preferred respndent would be the director of personnel or director of human resources. I will be glad to send that individual another questionnaire. Take name and address.

3. If asked, you should indicate that I would like the survey by October 15th in order to process the data and complete the study on time.

4. Use the MCI account and subaccount as instructed to make all calls.

5. Example conversation:

   Hello Mr./Ms. _____. How are you today?

   I am _____, calling on behalf of Kevin Hollenbeck, of The Ohio State University. He recently sent you a questionnaire to complete that had to do with how your firm rates youthful job applicants who are applying for entry-level jobs.

   Do you recall receiving this questionnaire? [Yes Go to (A) / No Go to (B)]

   (A) Have you already responded to the survey or do you intend to respond to the survey soon?

   [Yes, Say thank you and that we look forward to receiving your response soon. Terminate conversation.

   No, Go to (C).]

   (B) Oh, perhaps the package was misaddressed. Dr. Hollenbeck is studying the very important problems of high youth unemployment and job turnover and he feels that employers are perhaps the best individuals to provide information that will lead to answers. Can I send you or someone else in your company another copy of the questionnaire to complete?

[Yes, Take name and say thank you and terminate conversation

No, Go to Ⓒ.]

Ⓒ Dr. Hollenbeck is studying the very important problems of high youth unemployment and job turnover and he feels that employers are perhaps the best individuals to provide information that will lead to answers. Is there someone else in your company who will respond to the questionnaire?

[Yes, Take name. Say they will be sent the questionnaire immediately, say thank you and terminate conversation.

No, Go to Ⓓ.]

Ⓓ Dr. Hollenbeck asked me to ask you for reasons that you feel you cannot respond to his survey.

[Note reason, thank employer for his/her time, and terminate conversation.]

6. I'm hoping to get questionnaires back from about 50% of the companies you call. Therefore, if you are having a lot of difficulty contacting an individual, skip him/her, and go on. It makes sense to do the easy ones first.

7. There are quite a few people from the West Coast and calls are cheaper after 5:00. So to the extent that is convenient for you, calls can be made to the West Coast between 5:00 and 8:00 p.m. Otherwises calls should be made during business hours.

If you have any questions or problems, call me at any time

486-3655 (office)
431-9139 (home)

OSU

The Ohio State University

EXHIBIT A-5
FIRST FOLLOW-UP
COVER LETTER AND RETURN
POSTCARD FOR SUBSAMPLE
OF NONRESPONDENTS NOT
SELECTED TO RECEIVE QUESTIONNAIRE

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
1960 Kenny Road
Columbus, Ohio 43210
Phone 614-486-3655
Cable CTVOCEDOSU/Columbus, Ohio

August, 1983

Dear Sir or Madam:

Earlier this summer, we sent you a questionnaire to complete as part of our study on youth unemployment. We have not yet received your response which we very much need.

As you are aware, high levels of youth unemployment, job turnover, and inadequate educational preparation are major national problems that need to be addressed. In my opinion, these issues are best understood by employers like yourself. But we need to have a large enough sample to make a strong case for the employers' viewpoint. With your help we hope to get schools to do a better job of preparing youth for the job market.

If you have the questionnaire and have not had an opportunity to respond yet, I would appreciate if you could complete it and return it as soon as possible. Or I will be glad to mail you a second questionnaire. If you want someone else in your firm to respond, I will forward the questionnaire material to that individual.

Please use the enclosed postcard to let me know of your decision. Thank you.

Sincerely,

Kevin M. Hollenbeck

Kevin M. Hollenbeck
Director, Employer Hiring
Decisions Project

KH : cmk

_____ I have the questionnaire and will return it shortly.

_____ Send another copy of the questionnaire material to me and I will respond as soon as possible.

_____ Another individual in my company will respond. Send a copy of the material to:

_____

_____

_____

_____

_____ This firm is unable to complete your questionnaire because:

_____

_____

The Ohio State University

EXHIBIT A-6
COVER LETTER FOR
SECOND FOLLOW-UP

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION

1960 Kenny Road
Columbus, Ohio 43210-1090

Phone: 614—486-3655
Cable: CTVOCEDOSU/Columbus, Ohio

October 19, 1983

Dear Employer:

Earlier this year, we sent you the enclosed questionnaire, but we have not yet received a response from you. Without your help, we will not get an adequate sample of employers and therefore not have valid data. We realize that this request is an imposition on your busy schedule, but please reconsider answering the questionnaire for us. If it is more convenient, it is all right with us if you have someone else in your company complete the questionnaire.

The purpose of this study is to inform policymakers and practitioners in the education and training field of what employers are looking for in the people they hire. Our study will carry more weight with these people if we have an excellent sample of employers who are representative of the various businesses and industries. As of now, we feel that your business sector is not adequately represented.

On average, the questionnaire can be completed in 20-30 minutes. It looks more complex than it really is. Where information asked for is not easily available, it's all right to give your best estimate.

We hope that you will participate in our survey. In the event that you cannot, please let us know in order to preempt the followup call that we have planned.

Cordially,

Kevin Hollenbeck
Project Director
Employer Hiring Decisions Study

KH/caj

Enclosure

EXHIBIT A-7

DISPOSITION CODES BY SITE AND OCCUPATION

sposition Code	Boston, MA			Springfield, MA			Philadelphia, PA			Delaware			Baltimore, MD			Virginia Peninsula		
	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades
1	6	0	2	0	0	3	24	6	18	6	4	4	7	3	7	3	2	1
2	0	0	0	0	0	2	3	2	2	3	1	4	0	0	1	0	1	1
3	1	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0
4	0	0	0	0	0	0	1	0	4	1	0	0	0	0	1	0	2	0
5	0	0	0	0	0	0	2	2	2	0	0	0	0	1	0	0	0	0
6	4	2	4	0	0	4	7	16	15	5	3	1	2	4	4	3	0	0
7	0	1	1	0	0	0	5	1	5	0	2	4	1	0	1	0	0	0
8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	0	0	1	0	0	2	3	2	4	0	0	1	0	0	0	1	0	0
10	1	2	1	0	0	5	4	8	20	4	7	4	4	1	2	3	0	3
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	2	3	1	0	0	0	3	0	4	1	1	4	0	1	0	2	2	0
14	0	0	2	0	0	2	2	4	4	6	1	1	0	0	1	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
17	1	0	0	1	0	5	12	2	7	8	5	3	4	0	1	1	2	2
18	0	2	4	0	0	2	5	10	8	7	5	1	4	1	3	2	2	0
19	0	0	0	0	0	1	0	2	2	1	1	1	1	1	0	0	0	0
20	0	1	1	0	0	5	5	2	2	3	2	1	3	1	0	5	1	0
21	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0
22	0	2	2	0	0	5	13	11	14	3	3	5	5	5	4	8	6	4
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	1	0	0	0	0	2	6	3	9	0	3	2	0	1	2	2	2	0
25	0	1	0	0	0	2	6	2	12	4	1	2	2	0	3	0	0	0
26	22	9	18	2	0	39	61	73	133	51	56	35	20	13	16	16	11	12
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	22	11	18	1	0	43	76	82	144	58	56	41	22	14	19	19	12	13
TAL	60	31	56	4	0	121	239	229	413	162	156	119	73	47	65	69	43	36

EXHIBIT A-7--Continued

Disposition Code	Columbus, OH			Toledo, OH			Cleveland, OH			Detroit, MI			Flint, MI			Chicago, IL		
	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades
1	11	7	13	11	1	9	13	5	5	56	13	28	3	0	1	14	6	12
2	3	1	0	4	0	1	0	2	1	5	2	6	0	0	0	3	4	1
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4	0	1	1	2	0	1	0	0	0	3	0	2	0	0	1	1	0	3
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
6	1	3	2	1	0	3	2	1	0	13	6	4	4	0	1	3	2	4
7	1	1	2	0	0	2	1	0	0	6	1	3	1	0	2	3	0	4
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	1	0	0	1	1	0	0	2	0	0	0	0	1	0	1
10	5	0	4	1	1	4	1	2	0	12	5	13	2	0	5	12	1	10
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	1	1	0	1	0	1	0	6	2	4	0	0	0	1	0	2
14	1	0	0	0	0	0	0	0	0	3	1	3	0	0	0	1	2	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	3	5	2	2	1	1	1	1	1	17	9	5	0	0	1	4	4	9
18	4	0	7	2	2	5	3	2	0	17	2	11	3	0	0	3	5	8
19	2	0	0	2	0	0	1	0	0	2	0	2	0	0	0	0	0	1
20	5	2	0	1	0	0	0	1	1	7	1	2	0	0	0	4	0	4
21	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0
22	9	5	3	7	0	6	3	4	2	20	11	5	1	0	4	9	2	4
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	5	2	3	4	0	2	3	1	0	16	4	8	2	0	3	5	2	5
25	1	0	2	3	0	1	2	2	1	12	1	3	2	0	1	3	1	2
26	16	22	19	14	4	21	6	9	1	101	57	67	14	2	16	48	16	71
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	22	25	24	20	5	24	12	11	3	130	61	81	17	2	21	56	17	78
TOTAL	89	72	83	76	14	81	49	45	15	408	178	247	49	4	55	172	61	222

EXHIBIT A-7--Continued

Disposition code	E. St. Louis, MO			Houston, TX			Southern California			Seattle, WA			Unknown*	TOTAL*
	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades	Clerical	Retail	Machine Trades		
1	0	0	2	9	5	10	31	5	61	10	4	4	4	431*
2	0	0	0	0	0	1	2	0	10	2	1	2		70
3	0	0	0	1	1	1	2	0	1	0	0	0		11
4	0	0	0	1	0	2	3	0	11	0	1	0		42
5	0	0	0	0	0	0	0	0	0	0	0	1		10
6	0	0	2	5		9	14	9	40	10	1	6		222
7	0	0	1	2		1	2	1	13	4	1	0		73
8	0	0	0	0	0	0	0	0	0	0	0	0		1
9	0	0	0	4	1	1	1	1	8	1	0	0		38
10	0	0	1	4	2	0	11	5	47	11	2	3		231
11	0	0	0	0	0	0	1	0	1	0	0	0		3
12	0	0	0	0	0	0	0	0	0	0	0	0		0
13	0	0	0	3	1	0	1	0	8	3	2	1		59
14	0	0	0	3	0	3	5	1	17	3	1	0		70
15	0	0	0	0	0	0	0	0	0	0	0	0		0
16	0	0	0	0	0	0	0	0	0	0	0	0		1
17	0	0	2	8	2	6	10	10	46	10	4	5		223
18	0	0	2	8	0	6	11	7	30	19	9	2		223
19	0	0	0	0	0	1	0	0	9	2	0	0		30
20	0	0	1	9	4	2	5	3	21	6	4	2		111
21	0	0	0	2	0	0	0	0	1	0	0	0		11
22	1	0	1	17	3	6	16	6	41	13	2	6		294
23	0	0	0	0	0	0	0	0	0	0	0	0		0
24	0	0	0	5	0	1	11	3	32	7	1	2		160
25	0	0	0	4	1	3	4	4	17	4	0	3		112
26	5	0	17	50	17	46	86	54	391	71	23	28		1873
27	0	0	0	1	0	0	0	0	0	0	0	0		1
28	0	0	0	0	0	0	0	0	3	1	0	0		5
29	0	0	1	0	0	0	1	1	1	0	0	1		5
30	3	0	12	58	18	53	102	59	439	80	27	34		2143
TOTAL	7	0	58	190	57	192	315	169	1244	253	83	105	4	6448

*These returns had their identification numbers obliterated. Two were clerical and two were machine trades surveys. The total of 431 for disposition code 1 includes the unknowns, so when the entries of the TOTAL column and row are summed, an adjustment of four is netted out to avoid double counting.

APPENDIX C

RESPONSE FREQUENCIES TO EMPLOYER HIRING DECISIONS QUESTIONNAIRE

ID Number ____ 1 2 3 4 5

I. Respondent Characteristics

1. Your age
84 1) Less than 30
249 2) 30-44
130 3) 45-54
107 4) 55+
6

2. Your education
35 1) High school graduate or less than high school graduate
53 2) 1 or 2 years of training beyond high school
84 3) 3 or 4 years of training beyond high school, but not a college graduate
181 4) College graduate
213 5) 1 or more years of training beyond college graduation
7

3. Your sex
391 1) Male
179 2) Female
8

4. Your race
29 1) Black
2 2) Hispanic
537 3) White/Other
9

5. Which of the following most closely represents your management title? (MARK ONE)
201 1) Personnel or human resource department manager
2 2) Foreman
85 3) Staff member of personnel department
15 4) Supervisor (e.g., head clerk or cashier, unit chief, floor manager)
43 5) Department or division manager
108 6) Establishment executive (e.g., store manager, director, president)
71 7) Owner
45 8) Other: Specify _____
10

6. Looking at a typical work week, what percentage of your time is spent on the following (PLEASE MAKE SURE THE COLUMN ADDS UP TO 100%)

	Median	
Hiring employees	5 %	(11-13)
Training employees	5 %	(14-16)
Supervising employees	20 %	(17-19)
Job duties other than hiring/training and supervision	50 %	(20-22)
	100 %	

7. Do you have or share the authority to hire or fire persons for your company's entry level jobs? 23 24

7A. Hiring authority--
272 1) Yes, I can hire on my own
213 2) Yes, but I share authority
80 3) No, but I participate in process
6 4) No

7B. Firing authority--
231 1) Yes, I can fire on my own
195 2) Yes, but I share authority
98 3) No, but I participate in process
39 4) No

	Median	Range	
8. How many years have you been employed in this establishment?	7 years	(1, 51)	25 26
9. For how many years have you worked in this establishment's personnel department or participated in the selection of new new employees?	6 years	(0, 46)	27 28
10. How many years have you been in a position to participate in the hiring process in any company?	10 years	(0, 46)	29 30

II. Firm Characteristics

THE FOLLOWING QUESTIONS REFER TO THE ESTABLISHMENT AT WHICH YOU WORK (OR IF YOU ARE RESPONSIBLE FOR HIRING PEOPLE FOR MORE THAN ONE ESTABLISHMENT, THE ESTABLISHMENTS FOR WHICH YOU ARE RESPONSIBLE).

1. How many persons are employed full-time in your establishment at present? (31-32)

38 1) less than 10	47 4) 30-49	104 7) 200-499
42 2) 10-19	72 5) 50-99	96 8) 500-1999
45 3) 20-29	72 6) 100-199	57 9) 2000 or more

2. How many persons are employed part-time in your establishment at present? (33)

372 1) less than 10	28 4) 30-49	
42 2) 10-19	97 5) 50 or more	
28 3) 20-29		

3. Approximately, what percent of your full and part-time employees would be classified in entry-level, non-managerial positions; that is with job descriptions similar to that given on page 1 for the rating of applicants? (34)

55 1) less than 1%	85 4) 10%-19%	
60 2) 1%-4%	63 5) 20%-29%	
74 3) 5%-9%	227 6) 30% or more	

4. Of the management personnel in your establishment (foremen, supervisors, etc.), approximately what percent were first hired in an unskilled or semi-skilled position? (35-37)
Median: 30 %

5. Approximately what percent of the full-time and part-time employees are under the age 25? (38-40)
Median: 20 %

6. Roughly what percent of your non-supervisory workers are covered by collective bargaining agreements? 0% 376 100% 32 Conditional Median: 20 % (41-43)

7. During the last year, did the total number of employees in your establishment increase, decrease, or stay the same? (44-46) (47-49)

155	1) Increased by	Median: 10 %
195	2) Decreased by	Median: 15 %
	3) Stayed about the same	213

8. Does your company have any divisions or subsidiaries in other locations which do their own hiring? (50)

319	1) Yes (Go to question 9)
248	2) No (Go to Section III) (51)

9. What would you estimate to be the total number of full-time and part-time employees in all divisions and subsidiaries of your company? (Include your own establishment). (52)

161 1) 1-49	63 3) 100- 499	78 5) 2000-9999
162 2) 50-99	62 4) 500-1999	83 6) 10,000 or more

III. Establishment's Hiring Process

THESE QUESTIONS CONCERN YOUR ESTABLISHMENT'S GENERAL HIRING PROCESS FOR ENTRY LEVEL, NON-MANAGERIAL POSITIONS FOR A TYPICAL OR AVERAGE WEEK. WE ARE INTERESTED IN POSITIONS WITH A JOB DESCRIPTION SIMILAR TO THE ONE GIVEN ON PAGE 1. (IF YOU DO NOT HIRE FOR THAT TYPE OF JOB, PLEASE ANSWER THE FOLLOWING QUESTIONS FOR A SIMILAR JOB AND WRITE A DESCRIPTION OF THE JOB IN THE MARGIN.)

1. When your establishment has an opening in an entry level, non-managerial position which cannot be filled from within the firm, which of the following methods are used to attract applicants? (MARK ALL THAT APPLY) (53-62)

297	1) Referrals from the state employment service
134	2) Referrals from employment agency
47	3) Referrals from a union
391	4) Advertise in media
91	5) Display help wanted sign
379	6) Announce to current employees that there are openings
227	7) Ask for referrals from schools or training institutions
93	8) Other _____
22	9) Don't solicit applications

2. On average, how many vacancies for such jobs open up during a week? (If less than one per week, mark here [ ] and estimate vacancies for a year.) (63-65)

3. How many phone inquiries about employment in such jobs are received in a week? (66-68)
10 Median

0 2
79 80

1 2 3 4 5

4. How are these telephone inquiries about employment treated--

4A. When there is an opening

293 1) Callers are encouraged to come in and fill out an application
186 2) Callers are encouraged if they have skills
20 3) Callers are generally discouraged
53 4) NA because we have few phone calls

4B. When there is no specific opening (Check one)

176 1) Callers are encouraged to come in and fill out an application
118 2) Callers are encouraged if they have skills
195 3) Callers are generally discouraged
53 4) NA because we have few phone calls

6 7

5. About how many people come to your establishment in a week looking for an entry-level position similar to the one described-- (8-10)

5A. When there is an opening? Median: 15 5B. When there is no opening? Median: 5 (11-13)

6. Typically, what percentage of people that come in a week were--

6A. Referred by an organization or individual (employment service, employment agency, union, school) that had screened the individual for you? 0% 202 Median: 5 % Conditional Median 10% (14-16)

6B. Not referred but came in response to an advertisement, sign, or other solicitation? 25 % (17-19)

6C. Were unsolicited? 30 % (20-22)

100 %

7. About what percentage of people who come to your establishment without a referral looking for a position similar to the one described complete an application--

7A. When there is an opening?

302 1) 95-100%
96 2) 76-94%
38 3) 51-75%
36 4) 26-50%
22 5) 6-25%
54 6) 0-5%

7B. When there is no specific opening?

149 1) 95-100%
78 2) 76-94%
59 3) 51-75%
54 4) 26-50%
58 5) 6-25%
145 6) 0-5%

23 24

8. What percentage of persons who fill out an application are interviewed immediately--

8A. When there is an opening?

170 1) 95-100%
57 2) 76-94%
55 3) 51-75%
40 4) 26-50%
67 5) 6-25%
157 6) 0-5%

8B. When there is no specific opening

34 1) 95-100%
8 2) 76-94%
20 3) 51-75%
35 4) 26-50%
80 5) 6-25%
368 6) 0-5%

25 26

9. Does your hiring process involve having people return to your establishment for an interview or do you make job offers based on the completed application?

464 1) Have interviews later
87 2) No interview after application and immediate interview, if any

27

10. Which of the following best characterizes how your firm selects new hires for the type of entry-level, non-managerial positions described above? (MARK ONE)

500 1) A number of applicants are interviewed before a decision is made and then the best is selected.
48 2) Applicants are interviewed sequentially with the job offer decision usually made before the next interview is arranged.
14 3) Other _____

28

11. On average, how many people are interviewed to fill one opening for an entry-level, non-managerial position? Median: 5 range: (1,63) 29 30

12. In what percent of your hires for such a position was the last (or only) person interviewed the one actually hired Median: 20% (31-33)

13. Of those interviewed for a position, what percent are called in based on information obtained from a review of previously filled applications? (34-36)

Median: 10% (IF 0%, GO TO QUESTION 15) 0% 156

Conditional Median: 25%

14. Of those interviewed for an entry-level, non-managerial position based on a previously filled application, what percent end up being offered the job?

13 1) All 95-100 %
46 2) Most 61-94%
128 3) Half 40-60%
154 4) Few 6-39%
46 5) None 0-5%

37

15. What percentage of all of the people who have completed written applications for an entry-level, non-managerial job in your establishment do you feel are reasonably well-qualified for employment in your firm? Median: 30% (38-40)

0 2
79 80

1 2 3 4 5

IV. Firm's Training Process

THIS SET OF QUESTIONS REFERS TO THE JOB FOR WHICH THE APPLICATION RATING HAS JUST BEEN CONDUCTED. (IF YOU DO NOT ACTUALLY HAVE THOSE TYPES OF JOBS PLEASE ANSWER THE FOLLOWING QUESTIONS FOR A SIMILAR JOB AND WRITE A DESCRIPTION OF THE JOB IN THE MARGIN.)

1. What percent of new employee's work time is spent in each of the following: (CLASSIFY SO THAT PERCENTAGES ADD TO 100%)	DURING THE FIRST MONTH (160 HOURS)? Median	Mean	DURING THE NEXT 11 MONTHS (1840 HOURS) Median	Mean	DURING THE 2ND YEAR Median	Mean
1A. Formal training by specialized training personnel	0 % (6-8)	9.6%	0 % (9-11)	4.7%	0 % (12-14)	3.5%
1B. Reading manuals or self-paced learning programs	2 % (15-17)	6.5%	0 % (18-20)	5.3%	0 % (21-23)	4.8%
1C. Receiving instructions from a supervisor or coworker (Both individuals are fully devoted to the instructional activity)	20 % (24-26)	25.5%	10 % (27-29)	15.9%	5 % (30-32)	12.4%
1D. Learning the job by watching coworkers do the job at their work stations	10 % (33-35)	13.5%	5 % (36-38)	9.9%	0 % (39-41)	7.1%
1E. Learning the job by doing it while a supervisor or coworker devotes 100% of his/her time to supervising or advising the new worker	10 % (42-44)	21.2%	5 % (45-47)	11.9%	0 % (48-50)	9.8%
1F. Learning the job by doing it while another employee watches progress out of the corner of their eye	10 % (51-53)	16.4%	10 % (54-56)	27.4%	5 % (57-59)	26.8%
1G. Production activities or breaks that lack a training component	0 % (60-62)	8.9%	0 % (63-65)	19.4%	5 % (66-69)	30.5%
	100%		100%	584.5	100%	

0 3
79 80

THE NEXT SET OF QUESTIONS IN THIS SECTION ASKS ABOUT THE PRODUCTIVITY OF A TYPICAL EMPLOYEE. PLEASE RATE A TYPICAL EMPLOYEE'S PRODUCTIVITY ON A SCALE OF ZERO TO 100, WHERE 100 EQUALS THE MAXIMUM PRODUCTIVITY RATING ANY OF YOUR EMPLOYEES HAS OR CAN ATTAIN AND ZERO IS ABSOLUTELY NO PRODUCTIVITY BY YOUR EMPLOYEE.

1 2 3 4 5

2. What productivity score would you give to a typical new employee?	DURING THE FIRST DAY OF EMPLOYMENT Median	AT THE END OF THE FIRST MONTH Median	AT THE END OF THE FIRST YEAR Median
a. When not engaged in any of the training activities described above	5 (6-8)	50 (9-11)	85 (12-14)
b. When being trained or supervised by a line supervisor or management staff	20 (15-17)	60 (18-20)	90 (21-23)
c. When being trained or supervised by coworkers	15 (24-26)	50 (27-29)	85 (30-32)

3. What is the current starting hourly wage for the job for which you answered question 2? $ 5.00 per hour Range (2.11, 20.50) 35 36

4. What is the current hourly wage for people in this job who have been at the firm slightly more than one year? $ 6.00 per hour (2.11, 20.50) 37 38 39 40

5. How many years of relevant job experience does the typical new employee have? Mean: 1.86 years 41 42

6. Has the typical new employee in this job received training from a school or a previous employer?

a) School? If yes, estimate how much training. 43
252 1) Yes--> 12 FTE months
248 2) No
44 45

b) Previous employer? If yes, how much? 46
124 1) Yes--> 12 FTE months
120 2) No
47 48

7. How many of the skills learned by new employees in this job are useful outside of your company?

114 1) All 95-100% 49
238 2) Most 61-94%
99 3) Half 40-60%
64 4) Some 6-39%
2% 5) Minimal 0-5%

8. Focusing on the skills that are useful outside your company, how many other companies in the local labor market have jobs that require these skills?

33 1) Less than 5 50
83 2) 5-15
198 3) 16-100
211 4) Over 100

9. If it were purchased today what would be the cost of the most expensive machine people in entry-level jobs, like the ones described, work on or with?

88 1) Under $2,000 51
138 2) $ 2-$ 10,000
170 3) $10-$ 50,000
86 4) $50-$200,000
37 5) $200,000 up

10. How many weeks does the probationary period for these jobs last?

106 1) No probationary period 52 53
Conditional Median: 12 2) Weeks

11. (After the probationary period is over.) How much documentation or paperwork is required to fire an employee?

224 1) A great deal 54
176 2) Some
71 3) A little
53 4) No paperwork

12. If your company were to temporarily layoff one-third of its entry-level employees for a period of three months what would be the basis for selecting which employees would be laid off?

109 1) Solely seniority 55
108 2) Mainly seniority
131 3) Mainly productivity
37 4) Solely productivity
138 5) Half seniority, half productivity

13. Let us imagine your firm hired a group of new employees between the ages 16 to 25 in this job exactly two years ago, what percent of these would you imagine would now be in each of the following states?

	Median	
Discharged or induced to quit	10 %	(56-
Voluntarily resigned	18 %	(59-
Currently on lay off	0 %*	(62-
Still employed at the firm	60 %	(65-
Total	100 %	

14. Of those still at the firm what percent would have received a promotion (e.g., has been given noticeably upgraded job responsibilities involving a higher rate of pay) before two years are up?

Percent of those still at the firm that would be promoted 30 % (68-

0 4
79 80

* 0% 342
Conditional Median: 15 %

1 2 3 4 5

V. Firm's Experience with Young Employees

OF YOUR CURRENT EMPLOYEES AGE 25 AND UNDER WHO WERE HIRED IN THE LAST TWO YEARS, PLEASE SELECT TWO: ONE WHO HAS BEEN PROMOTED AND ONE WHO HAS NOT BEEN PROMOTED. (IF MORE THAN ONE PERSON FITS A PARTICULAR CATEGORY, SELECT THE PERSON WHO WAS HIRED CLOSEST TO EXACTLY 18 MONTHS AGO.)

		NOT PROMOTED	PROMOTED	
1.	Employee's age	104 1) Less than 20 101 2) 20-21 230 3) 22 +	40 1) Less than 20 83 2) 20-21 309 3) 22 +	6 7
2.	Sex	216 1) M 216 2) F	212 1) M 218 2) F	8 9
3.	Race/Ethnicity	53 1) Black 56 2) Hispanic 322 3) White/Other	59 1) Black 61 2) Hispanic 312 3) White/Other	10 11
4.	Education	62 1) Less than high school 262 2) High school graduate 79 3) Some college/training 28 4) College grad	19 1) Less than high school 242 2) High school graduate 126 3) Some college/training 46 4) College grad	12 13
5.	Did employee have relevant voc. ed. or major program in high school?	148 1) Yes 284 2) No	211 1) Yes 206 2) No	14 15
6.	High school grade point average	18 1) A 66 2) B 78 3) C 15 4) D 5) F 248 6) Don't know	31 1) A 104 2) B 49 3) C 7 4) D 5) F 234 6) Don't know	16 17
7.	Relevant voc. training or college course work	110 1) Yes 316 2) No	181 1) Yes 240 2) No	18 19
8.	Post high school point average	11 1) A 30 2) B 29 3) C 5 4) D 5) F 287 6) Don't know	18 1) A 59 2) B 19 3) C 3 4) D 5) F 270 6) Don't know	20 21
9.	Did employee have any part-time or full-time job experience prior to hire?	321 1) Yes 108 2) No	366 1) Yes 61 2) No	22 23
10.	How many years of relevant part-time or full-time job experience prior to hire?	108 1) None 103 2) Less than 1 152 3) 1-2 67 4) More than 2	69 1) None 72 2) Less than 1 162 3) 1-2 130 4) More than 2	24 25
11.	Did employee receive more training than average employee in this position.	50 1) Received more 374 2) About the same 12 3) Received less	35 1) Received more 376 2) About the same 22 3) Received less	26 27
12.	Did firm receive subsidy for hiring individual?	12 1) Yes 416 2) No 9 3) Don't know	10 1) Yes 420 2) No 3 3) Don't know	28 29
13.	When was individual hired?	___/___ month year	___/___ month year	30 31 32 33 34 35 36 37
14.	Current hourly wage Median:	$ 5.63	$ 6.60	38 39 40 41 42 43 44 45
15.	What productivity score (0 to 100) would you give employee now?	75	90	(46-48) (49-51)

0 5
79 80

T 2 3 4 5

VI. Firm's Experience with Young Employees Who Have Separated from the Firm

OF THE EMPLOYEES AGE 25 OR UNDER WHO WERE HIRED IN THE LAST TWO YEARS BUT WHO ARE NOT CURRENTLY WORKING FOR YOUR ESTABLISHMENT, PLEASE SELECT THREE: SOMEONE WHO RESIGNED VOLUNTARILY, SOMEONE LAID OFF AND NOT REHIRED, AND SOMEONE DISCHARGED OR INDUCED TO RESIGN (IF MORE THAN ONE PERSON FITS A PARTICULAR CATEGORY PLEASE SELECT THE PERSON WHO WAS HIRED CLOSEST TO EXACTLY 18 MONTHS AGO. IT DOES NOT MATTER WHETHER THE PERSON LEFT SHORTLY AFTER BEING HIRED OR ONLY AFTER BEING THERE FOR ALMOST A YEAR.)

		VOLUNTARY RESIGNATION	LAY OFF	DISCHARGE OR INDUCED QUIT	
1.	Employee's age	55 1) Less than 20 93 2) 20-21 238 3) 22 +	43 1) Less than 20 71 2) 20-21 143 3) 22 +	60 1) Less than 20 79 2) 20-21 218 3) 22 +	___ (6-8)
2.	Sex	198 1) M 189 2) F	153 1) M 97 2) F	208 1) M 142 2) F	___ (9-11)
3.	Race/Ethnicity	43 1) Black 38 2) Hispanic 298 3) White/Other	37 1) Black 37 2) Hispanic 175 3) White/Other	72 1) Black 32 2) Hispanic 247 3) White/Other	___ (12-14)
4.	Education	48 1) Less than high school 222 2) High school graduate 81 3) Some college/ training 33 4) College grad	46 1) Less than high school 160 2) High school graduate 27 3) Some college/ training 16 4) College grad	59 1) Less than high school 212 2) High school graduate 57 3) Some college/ training 22 4) College grad	___ (15-17)
5.	Did employee have relevant voc. ed. or major program in high school?	158 1) Yes 220 2) No	86 1) Yes 156 2) No	99 1) Yes 233 2) No	___ (18-20)
6.	High school grade point average	18 1) A 65 2) B 51 3) C 10 4) D 5) F 230 6) Don't know	8 1) A 17 2) B 52 3) C 9 4) D 3) F 162 6) Don't know	8 1) A 38 2) B 51 3) C 18 4) D 5) F 232 6) Don't know	___ (21-23)
7.	Relevant voc. training or college course work	113 1) Yes 257 2) No	58 1) Yes 176 2) No	79 1) Yes 243 2) No	___ (24-26)
8.	Post high school point average	7 1) A 35 2) B 21 3) C ___ 4) D 5) F 262 6) Don't know	7 1) A 12 2) B 19 3) C ___ 4) D 5) F 175 6) Don't know	3 1) A 23 2) B 23 3) C 2 4) D 5) F 247 6) Don't know	___ (27-29)
9.	Did employee have any part-time or full-time job experience prior to hire?	303 1) Yes 73 2) No	186 1) Yes 56 2) No	260 1) Yes 81 2) No	___ (30-32)
10.	How many years of relevant part-time or full-time job experience prior to hire?	74 1) None 88 2) Less than 1 135 3) 1-2 83 4) More than 2	48 1) None 62 2) Less than 1 83 3) 1-2 51 4) More than 2	77 1) None 77 2) Less than 1 121 3) 1-2 77 4) More than 2	___ (33-35)
11.	Did employee receive more training than average employee in this position.	35 1) Received more 341 2) About the same 7 3) Received less	33 1) Received more 204 2) About the same 11 3) Received less	64 1) Received more 238 2) About the same 10 3) Received less	___ (36-38)
12.	Did firm receive a subsidy for hiring individual?	9 1) Yes 369 2) No 3 3) Don't know	5 1) Yes 233 2) No 3 3) Don't know	7 1) Yes 317 2) No 5 3) Don't know	___ (39-41) 42 43
13.	Months at firm before separation	Median: 12 months	12 months	10 months	44 45 46 47
14.	Hourly wage at separation	$ 5.75 (48-51)	$ 6.00 (52-55)	$ 5.50 (56-59)	
15.	Productivity score two weeks prior to separation	75 (60-62)	70 (63-65)	50 (66-68)	

VII. Comments

1. Based upon your experience with young people, in which of the following areas of educational preparation are your applicants typically well-prepared and not well-prepared?

Well-Prepared (Mark all that apply)		Not Well-Prepared (Mark all that apply)	
57	a) Science	220	69
41	b) English-Writing Ability	456	70
132	c) English-Verbal Ability	345	71
123	d) Mathematics	328	72
203	e) Business Preparation (Bookkeeping, typing, etc.)	222	73
92	f) Distributive or Marketing Voc. Ed.	232	74
187	g) Industrial voc. ed. (Machine trades, woodworking, auto mechanics, etc.)	142	75
7	h) Others: _____	47	76

2. Do you have any general comments about your experiences hiring youth for entry-level jobs? Do you have any opinions about what skills and competencies schools should be teaching youth? Other comments which you think might be relevant for our study. 0 6

THANK YOU

120

REFERENCES

Arrow, Kenneth J. "Higher Education as a Filter." Journal of Public Economics 2, no. 3 (1973): 193-216.

Bishop, John H. The Social Payoff from Occupationally Specific Training: The Employer's Point of View. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1983.

Bishop, John H.; Barron, John; and Hollenbeck, Kevin. Recruiting Workers. Technical Report submitted to the National Commission for Employment Policy. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1983.

Bluestone, Barry, and Harrison, Bennett. The Deindustrialization of America. New York: Basic Books, 1982.

Burtless, Gary, and Cheston, John. "The Montgomery County (Dayton) Ohio Wage Subsidy Voucher Experiment: Initial Findings." Washington, DC: U.S. Department of Labor, July 1981.

Chatham, Karen. "Employment Practices with Entry-Level Workers," Research Brief. San Francisco: Far West Laboratory for Educational Research and Development, 1982.

Choate, Pat. Retooling the American Work Force: Toward a National Training Strategy. Washington, DC: The Northwest-Midwest Institute, July 1982.

Dun and Bradstreet, Inc. "Employers View Vocational Education." Report submitted to the Virginia State Advisory Council on Vocational Education, 1977.

Hollenbeck, Kevin. Hiring Decisions: An Analysis of Columbus Employer Assessments of Youthful Job Applicants. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1984.

Johnson, George E., and Stafford, Frank. "Social Returns to Quarterly and Quality of Schooling." Journal of Human Resources 8, no. 2 (Spring 1973): 139-155.

Levin, Henry M. and Rumberger, Russell W. The Educational Implications of High Technology. Palo Alto, CA: Institute for Research on Educational Finance and Governance, Stanford University, February 1983.

Medoff, James L. "Labor Market in Imbalance: Review of Qualitative Evidence." November 1982, unpublished.

Miguel, Richard. Youth's Perceptions of Employer Hiring and Disciplinary Standards. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1982.

Nunez, Ann R. and Russell, Jill. As Others See Vocational Education - Book 1: A Survey of the National Association of Manufacturers. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1982.

Peterson, Robert M. "School Priorities: A View from the Workplace," Research Brief. San Francisco: Far West Laboratories for Educational Research and Development. August 1983.

Richards, Edgar L. Perceptions of the Preparation of Youth for Work: Report of a Three-State Survey. Philadelphia, PA: Research for Better Schools, 1980.

Rumberger, Russell W. "The Growing Imbalance between Education and Work," Phi Delta Kappan 65, no. 5 (January 1984): 342-346

Salop, J., and Salop, Steven. "Self-Selection and Turnover in the Labor Market." Quarterly Journal of Economics 90 (November 1976): 619-628

Spence, A. Michael. "Job Market Signaling." Quarterly Journal of Economics 87, no. 3 (August 1973): 335-374.

Spence, A. Michael. "Market Signaling: The Informational Structure of Job Markets and Related Phenomena." Ph.D. diss., Harvard University, 1972.

Spence, A. Michael. "Signaling, Screening, and Information." In Studies in Labor Markets, edited by S. Rosen, pp. 319-357. Chicago: University of Chicago Press, 1981.

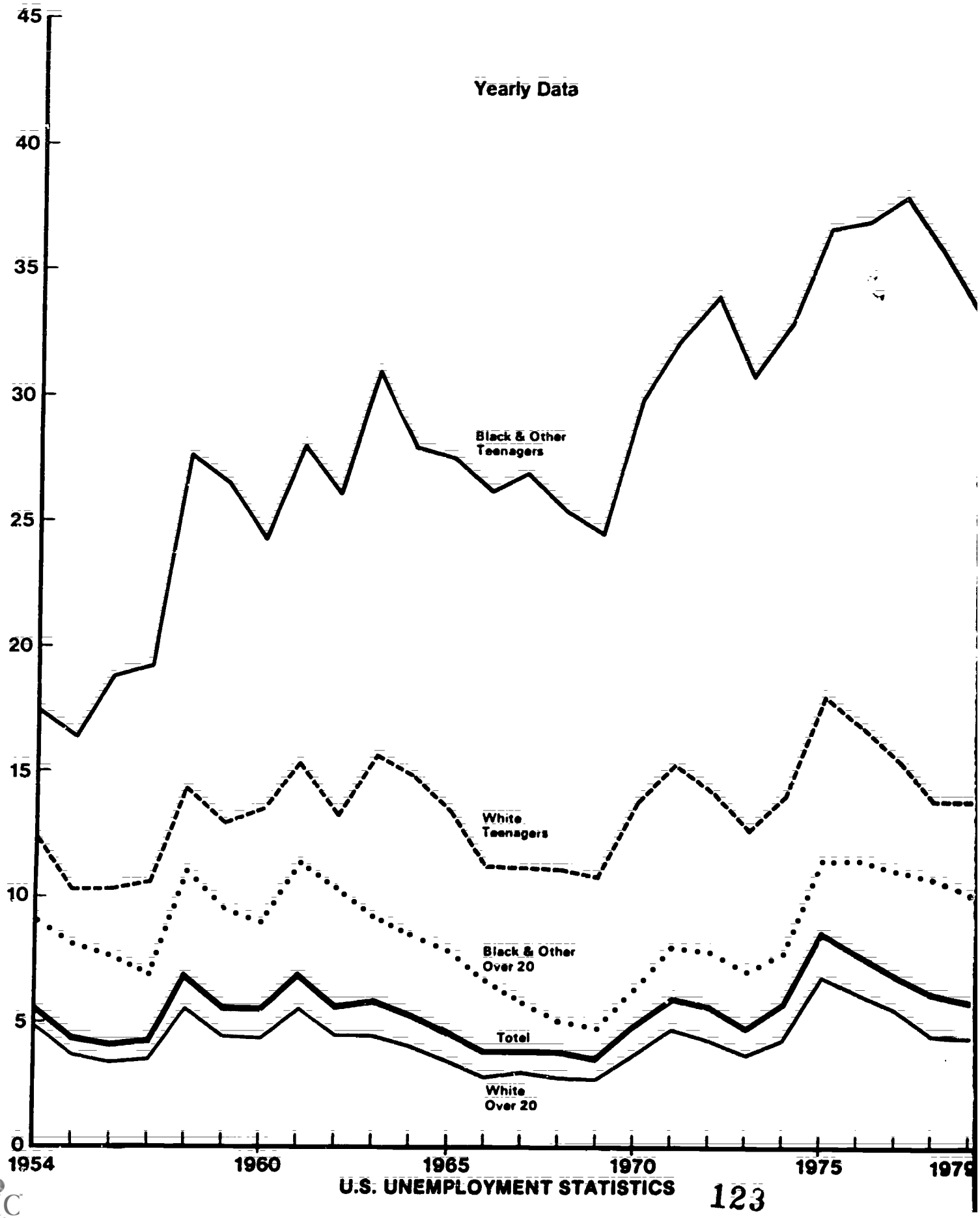
Thurow, Lester. Poverty and Discrimination. Washington, DC: Brookings Institution, 1969.

Utah Vocational Study Commission, Utah Vocational Education Study Commission Report 1979. Salt Lake City: UVSC, December 1979.

Wachtel, Paul. The Effect of School Quality on Achievement Attainment Levels and Lifetime Earnings. New York: New York University, 1974.

Wilms, Wellford W. "The Limited Utility of Vocational Education: California Employers' Views" Public Affairs Report. (Institute of Governmental Studies, University of California--Berkeley) 24, no. 4 (August 1983): 1-7.

Wise, David A. "Academic Achievement and Job Performance." American Economic Review 65, no. 3 (June 1975): 350-366.



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