A survey of 40 senior personnel directors of medium-sized and large employers in the Washington, D.C., metropolitan area identified characteristics of unskilled applicants most highly valued by employers. These personnel directors estimated the probability that 16 hypothetical unskilled individuals would be hired at their firm. Each hypothetical individual was described by seven characteristics: high school completion, job-specific training, work experience, motivation, reliability, appearance, and speech. The primary finding was that the motivation, reliability, and attitude of entry-level job applicants were more important than completing high school or a training program. In fact, personnel officers reported that completing high school or a training program did not significantly improve the likelihood of being hired for an entry-level position. The hiring decision for entry-level positions was, unlike the case for many higher paying jobs, not a single discrete event. It consisted of several stages, often continuing over a period of several months. Each stage typically required applicants to demonstrate their motivation, attitude, and reliability to a different representative of the firm. Personnel officers felt training programs serving persons with limited employment qualifications should devote themselves to improving their participants' motivation and reliability. (Appendices include information on conjoint analysis, the survey instrument, and a 21-item bibliography.)
GETTING HIRED:

Characteristics Employers Prefer in Unskilled Job Applicants

By Myles Maxfield
1988
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Characteristics Employers Prefer in Unskilled Job Applicants

By Myles Maxfield
Mathematica Policy Research, Inc.
1988
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TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>iii</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFACE</td>
<td>vi</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>vi</td>
</tr>
<tr>
<td>SUMMARY</td>
<td>vii</td>
</tr>
</tbody>
</table>

I. INTRODUCTION
   - Background of the study 1
   - Research objectives 6
   - Plan of the report 8

II. METHODOLOGY
   - Overview 9
   - The seven tested characteristics 9
     - High school 10
     - Job-specific training 10
     - Work experience 10
     - Motivation 11
     - Reliability 11
     - Appearance 12
     - Speech 12
   - The sample 14
   - The survey instrument 16
   - Conjoint analysis 17

III. EMPLOYER PREFERENCES AMONG UNSKILLED JOB APPLICANT CHARACTERISTICS
   - Conjoint results 19
   - Importance score results 21
   - The most important characteristic 24
   - Other important characteristics 25
   - Characteristics of current entry-level employees 26
   - Summary 28

IV. CHARACTERISTICS OF THE JOBS
   - Overview 29
   - Wage rate 30
   - Hours per week 31
   - Permanent status 32
   - Health benefits 32
   - Summary 33
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V. THE HIRING PROCESS</strong></td>
<td></td>
</tr>
<tr>
<td>Overview</td>
<td>34</td>
</tr>
<tr>
<td>Requirements of the position</td>
<td>34</td>
</tr>
<tr>
<td>Steps in the hiring process</td>
<td>38</td>
</tr>
<tr>
<td>Summary</td>
<td>41</td>
</tr>
<tr>
<td><strong>VI. CONCLUSION</strong></td>
<td>42</td>
</tr>
<tr>
<td><strong>APPENDIX A: CONJOINT ANALYSIS</strong></td>
<td>46</td>
</tr>
<tr>
<td><strong>APPENDIX B: MODE OF FUTURE SURVEYS</strong></td>
<td>50</td>
</tr>
<tr>
<td><strong>APPENDIX C: SURVEY INSTRUMENT</strong></td>
<td>52</td>
</tr>
<tr>
<td><strong>APPENDIX D: INTRODUCTORY LETTERS</strong></td>
<td>66</td>
</tr>
<tr>
<td><strong>APPENDIX E: JOB APPLICANT DESCRIPTIONS</strong></td>
<td>69</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY</strong></td>
<td>77</td>
</tr>
<tr>
<td>Table</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>The impact on the likelihood of being hired and of changing the characteristics of a job applicant</td>
</tr>
<tr>
<td>2</td>
<td>Mean importance scores of job applicant characteristics</td>
</tr>
<tr>
<td>3</td>
<td>The single most important characteristic of a job applicant</td>
</tr>
<tr>
<td>4</td>
<td>Other important characteristics of a job applicant</td>
</tr>
<tr>
<td>5</td>
<td>Percentage of employees at the respondent's firm having each characteristic</td>
</tr>
<tr>
<td>6</td>
<td>Hourly wage rate</td>
</tr>
<tr>
<td>7</td>
<td>Full-time status</td>
</tr>
<tr>
<td>8</td>
<td>Hours per week</td>
</tr>
<tr>
<td>9</td>
<td>Permanent status</td>
</tr>
<tr>
<td>10</td>
<td>Eligible for health benefits</td>
</tr>
<tr>
<td>11</td>
<td>Family health insurance coverage available</td>
</tr>
<tr>
<td>12</td>
<td>Youngest age of employee permitted</td>
</tr>
<tr>
<td>13</td>
<td>Oldest age of employee permitted</td>
</tr>
<tr>
<td>14</td>
<td>Minimum required reading level</td>
</tr>
<tr>
<td>15</td>
<td>Minimum required math level</td>
</tr>
<tr>
<td>16</td>
<td>Steps in the hiring process</td>
</tr>
<tr>
<td>17</td>
<td>Sources of job applicants</td>
</tr>
<tr>
<td>18</td>
<td>Police record checked during hiring process</td>
</tr>
<tr>
<td>19</td>
<td>Recommended focus of training programs</td>
</tr>
<tr>
<td>A-1</td>
<td>Conjoint data base</td>
</tr>
<tr>
<td>B-1</td>
<td>Respondent would agree to participate if the survey were by mail and telephone</td>
</tr>
</tbody>
</table>

iii
When choosing among relatively unskilled applicants for entry-level jobs, what characteristics do employers look for? This report describes which characteristics are most highly valued by employers, and which are valued little. It was prepared for the information of people trying to reduce the numbers of Washington, D.C., residents in long-term poverty by increasing their earnings from employment.

Using information gathered through interviews with senior personnel officers of medium-sized and large employers in the Washington, D.C., metropolitan area, the report shows that personnel officers most value such work-readiness characteristics as motivation and reliability when selecting people for entry-level jobs. These attributes are valued over all other characteristics tested, including a high school diploma and job-specific training. The results indicate that employment and training programs attempting to secure entry-level jobs for their participants should focus considerable attention on work-readiness training.

The author cautions that his study analyzed entry-level jobs only. Based on this and other research, the author concludes that programs that aim to place their trainees in better-paid jobs should provide both work-readiness training and training in vocational and basic skills.

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Joan Paddock Maxwell
Senior Associate
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SUMMARY

Purpose

The overall purpose of this study is to provide guidance to training program planners and directors regarding the types of skills, or more generally the types of characteristics, that most effectively increase the likelihood that their participants will be hired into entry-level jobs. This guidance may help program managers to focus their scarce resources on developing those characteristics that are most likely to secure stable, long-term employment for their participants.

More specifically, the study had three research objectives:

(1) To determine which characteristics of unskilled job applicants are most highly valued by employers, and which are valued little;

(2) To determine the most important characteristics of the jobs into which unskilled persons are hired; and

(3) To identify the specific components of, or steps in, the process of hiring unskilled persons.

Methodology

The findings reported here are based on a survey of medium-sized and large employers in the Washington, D.C., metropolitan area, including the Maryland and Virginia suburbs, in industries that employ significant numbers of unskilled people. The selected industries were retail automobile dealers, banks, beverage bottlers and distributors, builders and developers, construction firms, hospitals, hotels, manufacturing firms, restaurants, retail firms, temporary agencies, universities, document processing firms, and government. Forty interviews with senior personnel officers of such
firms were completed in January and February of 1988. The sample of private-sector firms was drawn from the membership list of The Greater Washington Board of Trade. The Government of the District of Columbia and the Federal Government were added to the sample.

Key Findings

The primary finding of the study is:

- The motivation, reliability, and attitude of entry-level job applicants are more important than completing high school or completing a training program. In fact, personnel officers report that completing high school and/or a training program do not significantly improve the likelihood of being hired for an entry-level position.

The average entry-level job at medium and large firms in the Washington D.C. metropolitan area is a permanent, full-time position, offering a relatively low wage rate ($5.79 per hour) and health insurance. This average job requires eighth grade reading skills and ninth grade mathematics skills.

The hiring decision for entry-level positions is, unlike the case for many higher paying jobs, not a single discrete event. The typical hiring decision consists of several stages, often continuing over a period of several months. Each stage in the process typically requires the applicant to demonstrate his or her motivation, attitude, and reliability to a different representative of the firm.

Washington-area firms typically recruit applicants for entry-level positions through word-of-mouth from current employees or with classified advertisements in the newspaper. Entry-level positions are also commonly
filled by people who walk in from the street. Employment and training programs are seldom used as a source of entry-level job applicants.

Conclusions

Personnel officers felt that training programs serving persons with limited employment qualifications should devote themselves to improving their participants' motivation and reliability. Few personnel officers felt that training programs should focus on vocational skills or basic education.

There appear to be three reasons behind this view. First, virtually all firms develop the vocational skills necessary for the performance of their entry-level positions in-house. Employers appear to feel that external training programs do not improve the productivity of new employees enough so that they can skip the in-house training, and thus external training programs do not result in any reduction in the cost of in-house training.

Second, the entry-level jobs that were the subject of this study do not generally require more than a seventh or eighth grade level of basic education. Employers state that completing high school does not add significantly to a worker's productivity on such jobs.

On the other hand, personnel officers felt that having the motivation to work hard and having the reliability to show up on time every business day do increase a person's productivity in an entry-level position. Moreover, employers perceive a scarcity of these two qualities among applicants for entry-level positions.
As a result of these factors, employers interviewed would recommend that training program resources be re-directed from basic education and vocational training to focusing on work-readiness training.

This is the conclusion of the study from the employer's point of view. The conclusion of the study from the public policy perspective is less straightforward. In this study, we have determined that, if the objective of the training program is to secure an entry-level job for its participants, the employer's recommendation for redirecting resources is appropriate.

If, however, the objective of the training program is to secure a job that is better than such entry-level jobs, the employer's recommendation may not be appropriate. Although this study did not examine any but the lowest skill, lowest wage jobs, other studies have shown that "better" jobs often require more basic education and/or more vocational training than the entry-level jobs on which we have focused. Further, research has indicated that the reading and math skills of many training program participants may be insufficient to qualify them for these better jobs.

Placing the results of this study into this broader context leads to the conclusion that training programs that aim to place their participants into entry-level, low-wage jobs need only provide training in motivation, reliability, and attitude; whereas, programs that aim to place their participants in better jobs must provide both work-readiness training and training in vocational and basic skills.
I. INTRODUCTION

Background of the study
Each year over $60 million is spent in over a hundred programs in the Washington, D.C., area on training and other activities designed to enhance the ability of low-income Washington, D.C., residents with limited employment qualifications to secure long-term employment. These and similar programs in other metropolitan areas in the U.S. are typically designed around several implicit assumptions: Programs attempt to develop or enhance a particular work-related skill among program participants, in the hope that the enhanced skill will make each participant more productive from the perspective of potential employers. The increased productivity will increase the likelihood that the employer will hire the program participant; and the resulting stable, long-term employment will increase the participant's earned income. The increased earned income will help the participant escape from poverty.

This study accepts these basic assumptions of training programs as valid, but its findings suggest that the definition of "skill" most commonly used by training programs in the 1980s may be too narrow. Typically, a training program teaches one or both of the following types of skills. The first type is basic education, which, for this population, generally means completing high school. The second type, called "job-specific skills" in this report, consists of a skill that is specific to an occupation, such as

1These programs are catalogued, and the expenditure figure is documented, in Gregory (1988).
training in being a bank teller or training in automobile repair. Such skills are taught in vocational training programs.

Some training programs have expanded the definition of work-related skills to include a third type, called "work-readiness training" in this report, consisting of skills needed by all employees, such as training in following instructions, having a positive attitude toward the job, and being punctual.

The purpose of this study is to estimate the value of this third, less common component of the definition of work-related skills, from the point of view of potential employers. The definition of work-related skills adopted for this study includes basic education, job-specific skills, as well as a detailed array of work-readiness training such as motivation, appearance, speech, and reliability. (These terms will be carefully defined in a later section.) These last four items are often not considered to be skills, per se, but rather are considered to be a person's characteristics. For this reason, we will use the more general term characteristics instead of the narrower term skills.

At this point, it is important to note that the set of characteristics under investigation includes only those that could be altered by a training program. We explicitly do not investigate immutable characteristics such as sex, race, and ethnicity. This is not to say that the likelihood of being hired is unaffected by the sex, race, or ethnicity of the job applicant, only that this is not a study of sex, race, or ethnic discrimination.

The second element in the background of the study is the fact that training program managers, faced with limited resources, cannot train
participants in every type of skill. Program managers are forced to focus on a subset of skills. Indeed, training programs can generally be categorized by the type of skill they focus on. Some are basic education programs, others are specific to a particular occupation, and others are work-readiness programs.

Within this context, the overall purpose of this study is to provide guidance to training program managers regarding the types of skills, or more generally the types of characteristics, that are most likely to secure employment for their participants. The guidance is offered in the hope that, if training programs focus on these characteristics, the programs will become more effective, so that ultimately a greater number of people will be able to work themselves out of poverty.

The employment and training programs of twenty-five years ago, and the evaluations of those programs, did not adopt the simple "either/or" view of the three types of training which has been adopted for this study. Taking the Job Corps Program, initiated by the 1964 Economic Opportunity Act, as an example of the programs of the 1960s, the primary treatment received by Job Corps participants was intensive, long-term training, including all three types of training outlined above.

Ironically, much of the reason for including work-readiness training in the programs of the 1960s was a common belief at that time that employers place a high value on the motivation, attitude, and appearance of job applicants, relative to their basic education and job-specific skills.\(^2\)

Evaluations of the programs of the 1960s came to the double-edged conclusion

\(^2\)See Magnum and Walsh (1980) and Walther (1976).
(1) that a comprehensive program of training disadvantaged persons, such as the Job Corps, is effective at increasing the participant's chances of employment and at increasing the participant's level of earned income; and (2) that such an approach is prohibitively expensive.³

To the latter conclusion was soon added evidence that the work-readiness component of comprehensive training programs was less effective than other components. The causes of this ineffectiveness proved to be (1) high participant drop-out rates in work-readiness training sessions (apparently caused by participant expectations that the training program would be vocational in nature), (2) under-funding of this component of the overall program, and (3) not integrating (from the participant's point of view) the work-readiness training with the vocational training.⁴

The impact of these research findings was that work-readiness training was seldom used, or evaluated, during the 1970s.⁵ Basic education and job-specific training continued to be used, and evaluations generally showed them to be effective.⁶

The decade of the 1980s brought changes to this situation. First, the research evidence regarding the effectiveness of employment and training programs was re-examined comprehensively, as the research community realized

³See Levitan and Johnson (1976) and Mallar (1982).
⁴See Walther (1976) and Olympus Research Center (1971).
⁵See Magnum and Walsh (1980).
that reliable estimates of effectiveness required the use of classic experimental design, i.e., random assignment to treatment and control groups.\(^7\)

The second change in the 1980s was new evidence regarding the value that employers place on work-readiness skills, as distinct from basic education or job-specific skills. Crain\(^8\) asked personnel officers to give an importance score to a wide array of characteristics of high school graduates applying for a job. He found that reliability and attitude received significantly higher scores than reading and math skills. Lynton et al.\(^9\) provided extensive anecdotal evidence that employers in the New York metropolitan area taught the necessary vocational skills themselves in in-house training programs, and that employers most wanted to find entry-level job applicants with work-readiness skills.

As a result of these two changes, (1) evaluations of employment and training programs in the 1980s have typically been performed with social experiments or social demonstration projects; and (2) many of these demonstration projects have included one or more components that were similar or related to work-readiness training, such as job search skills training, counseling, and work experience. In contrast to the experience of the 1960s, research in the 1980s has generally found these work-readiness-related program components to be effective, both directly by increasing the

\(^7\)See Bassi and Ashenfelter (1980, p. 150).

\(^8\)See Crain (1984, Table 8).

participant's chances of employment and indirectly by increasing the effectiveness of subsequent job-specific training.¹⁰

This study extends the recent evidence regarding the value that employers place on the motivation, attitude, appearance, reliability, and other subjective characteristics of both employees and job applicants. In addition to confirming the recent finding that employers feel that attitude and reliability are "more important," this study presents quantitative estimates of the increased probability of being hired brought about by the job applicant having a good attitude, being reliable, and having a good appearance. These impacts are compared to the increased probability of being hired brought about by the applicant completing high school and completing a job-specific training program. The quantitative estimates of the likelihood of being hired are based directly on survey measures of the preferences of the senior personnel officers of middle and large employers in the Washington, D.C., metropolitan area.

Research objectives

The overall purpose of the study translates into the following specific research objectives:

(1) To determine which characteristics of unskilled job applicants are most highly valued by employers, and which are valued little;

(2) To determine the most important characteristics of the jobs into which unskilled persons are hired; and

(3) To identify the specific components of, or steps in, the process of hiring unskilled persons.

The first research objective is essentially a restatement of the overall purpose of the study. The second objective is included in order to evaluate one of the basic assumptions underlying training programs, namely that long-term employment generates enough earned income so that the person can escape from poverty. If the jobs for which trainees are eligible are such that the trainee cannot remove himself or herself from poverty, then the general strategy of using training programs to address the social problem of poverty may be faulty.

The third objective is necessary in order to define the hiring process. The decision to hire an unskilled person is typically not a single event. Rather, it occurs in stages at two or three points in time, often separated by weeks or months, and often involves several different representatives of the employer.

The study also had a secondary methodological objective to determine whether the survey could be performed by mail and telephone, instead of in person. As described in the next chapter, the study employed a survey of personnel officers. The interviews were conducted in person, which is generally considered to be the best, and most expensive, way to conduct interviews. If a larger survey were to be performed, or if similar surveys were to be undertaken in several other cities, the expense of an in-person survey might be prohibitive. In light of this, we attempted in this survey to determine whether a similar survey conducted by mail and telephone would be feasible. The results of this investigation are presented in Appendix B.
Plan of the report

Chapter II outlines the survey and analytic techniques used in the study.

Chapter III presents the primary findings of the study regarding the preferences among personnel officers for unskilled job applicant characteristics.

Chapter IV presents the characteristics of the jobs for which these hypothetical applicants were considered.

Chapter V defines the hiring process by outlining the several stages involved in becoming a permanent employee. This chapter also presents the formal requirements that the applicants must meet in order to qualify for the jobs.

Chapter VI develops a projection of the potential future response rate if a similar survey were to be conducted by mail and telephone, rather than in person.

Chapter VII offers several general conclusions from the study.

Appendix A presents some technical details pertaining to the conjoint statistical technique used in the study.

Appendix B presents the survey findings with respect to the feasibility of conducting surveys of this nature by mail and telephone in the future.

Appendix C reproduces the survey instrument.

Appendix D reproduces the introductory letters mailed to potential survey respondents.

Appendix E presents the sixteen descriptions of hypothetical job applicants used in the study.
II. METHODOLOGY

Overview

The study was designed to measure the likelihood that unskilled individuals who differ only in the type of training they had received would be hired into entry-level jobs. "Entry-level jobs" were defined specifically to mean jobs that do not require completion of high school. The likelihood of being hired was estimated by performing the following steps:

1. Creating descriptions of sixteen hypothetical unskilled individuals.
2. Selecting a sample of forty firms in the Washington, D.C., metropolitan area from industries that employ significant numbers of unskilled people.
3. Identifying the senior personnel officer in each sampled firm.
4. Presenting the descriptions to the personnel officer, and asking him or her to estimate the probability that each applicant would be hired at that firm, assuming the firm had a vacancy.

The seven tested characteristics

The hypothetical individuals were described by seven characteristics. The characteristics were: high school completion, job-specific training, work experience, motivation, reliability, appearance, and speech. Each characteristic was associated with two or three levels of the characteristic. For example, high school completion was associated with (1) having a high school diploma or (2) not having a high school diploma. The characteristics, and the levels of the characteristics, were defined for the survey respondent in a glossary, a portion of which is reproduced below:
High school

This characteristic is straightforward, and has two levels:

- Has a high school diploma, or
- Does not have a high school diploma

Job-specific training

By this characteristic, we mean that the job applicant has completed a course of training (not including training you provide in-house) designed to give the person a specific skill required to perform the entry-level job in your firm. Examples of this would include graduating from a course in building maintenance, plumbing, word processing, food services, housekeeping, and equipment repair. Such courses typically last 10 to 20 weeks, and include both classroom training and supervised field work.

If entry-level positions in your firm do not require specific training of this type, this characteristic of a job applicant may have little value for you.

Similarly, if your firm has a policy or practice of providing this type of training in-house, this characteristic would not be important to you.

There are two levels of this characteristic:

- Has graduated from a specific skill training course.
- Has not graduated from such a course.

Work experience

Work experience is meant in the general sense of having worked steadily over the last few years, and does not refer specifically to having a prior job in
the same industry and performing the same tasks that would be required by
the entry-level position at your firm.

This characteristic has three levels:

- Has worked steadily over the last several years, or
- Has been unemployed and out of school for the last year, or
- Has no work experience because of having recently left school.

Motivation

This characteristic is very subjective, and focuses on your impression of
the applicant's eagerness, alertness, and willingness to take direction
during the job interview and during a subsequent probationary period.

This characteristic has three levels:

- The applicant appears to be highly motivated, to want the
  position a great deal and gives you the impression of being
  happy to perform the duties associated with the position, or
- The applicant appears to have an intermediate motivation, to be
  willing to perform the required duties with neither great
  eagerness nor any reluctance, and to follow the direction of a
  supervisor fully and accurately but without cheerfulness.
- The applicant gives you the impression of being poorly
  motivated, of being willing to perform the required duties, but
  with some reservation, and with some reluctance to accept
  direction from a supervisor.

Reliability

This characteristic is focused on being late for work and being absent from
work. The characteristic is expressed in terms of being late or absent
during a six-week probationary period at your firm prior to your making the
final hiring decision.
This characteristic has two levels:

- The job applicant is 15 minutes late once during the six-week probationary period, or
- The applicant is 20-30 minutes late three times during the six-week probationary period, and had one unexplained absence during the six weeks.

Appearance

By appearance, we mean that the applicant comes to a job interview dressed and groomed in a manner that is appropriate and standard for the entry-level position at your firm. This may mean wearing business clothes if the position involves contact with customers, or it may mean wearing clean work clothes if they are appropriate to the position. We are not referring to whether a female applicant is pretty or whether a male applicant is handsome.

There are two levels of this characteristic:

- The applicant gives you the impression of being neat, clean, and well groomed at the job interview.
- The applicant does not give you such an impression.

Speech

This characteristic refers to the ability to converse with other people using standard English grammar, vocabulary, and pronunciation. Generally, this characteristic would be more important if the entry-level position involves contact with the public or with customers. We are not referring to simply speaking with an accent.
This characteristic has two levels:

- Speaks using standard English, or
- Speaks using slang, and is unable to converse in standard English.

The entire glossary is presented in Appendix C.

Each description of a hypothetical job applicant was formulated by selecting a level of each of the seven characteristics. The descriptions differed from each other in that they contained various combinations of levels of the seven characteristics. A total of sixteen descriptions of hypothetical job applicants were formulated in this way, and are presented in Appendix E.

A feature of the study design that must be highlighted is that, even though entry-level jobs were explicitly defined as those that do not require the applicant to have completed high school, a high school diploma was included in the list of job applicant characteristics. This may raise a concern that we have biased the study toward finding little value in receiving a high school diploma.

Such a concern presumes that employers place no value on any qualifications the applicant possesses that exceed the minimum requirements of the position. Contrary to such a presumption, personnel officers are typically in the position of choosing among several applicants for a position, and the hiring decision is based largely on those applicant qualifications that go beyond the minimum requirements of the position. Moreover, the only way to test the value of a high school diploma is in terms of jobs that do not require a diploma. An applicant without a high school diploma would not be considered for a position that requires a
diploma. Thus, for positions that require a diploma, the value of a diploma, in the quantitative and measurable sense used in this study, has no meaning (or is infinite).

The sample

The survey interviews were conducted with senior personnel officers of forty organizations (38 firms plus the Federal government and the District of Columbia government) in the Washington, D.C., metropolitan area, including the Maryland and Virginia suburbs. The sample was designed to be representative of the major employers of entry-level personnel in this area. The sample was limited to industries that employ large numbers of entry-level workers. Within these industries, the sample was weighted toward larger employers, in the belief that training program operators target their placement efforts on larger organizations. Thus, the study sample was not a random sample of firms in this geographic area, but rather was intended to represent those firms most often in the position to make hiring decisions regarding training program graduates.

The survey sample frame was the 1987 membership of the Greater Washington Board of Trade in selected industries, plus the Government of the District of Columbia and the Federal Government. The Board of Trade membership was chosen because it included firms from all industries in the Washington area, and was weighted toward large firms. Approximately one third of all corporations in this area are members of the Board of Trade,
and these firms employ approximately two thirds of the workforce in the area.  

The selected industries were retail automobile dealers, banks, beverage bottlers and distributors, builders and developers, construction firms, hospitals, hotels, manufacturing firms, restaurants, retail firms, temporary agencies, universities, document processing firms, and government. These industries were selected by matching the industries contained in the Board of Trade membership list against the list of occupations identified by Bendick and Egan as employing large numbers of entry-level employees.

During the interview, each survey respondent was asked to evaluate the hypothetical applicants in terms of a specific entry-level occupation. Retail automobile dealers were asked about clerks, banks were asked about tellers, beverage bottlers and distributors were asked about unskilled labor, builders and developers were asked about janitors and security guards, construction firms were asked about laborers, hospitals were asked about health care aides, hotels were asked about cleaning service workers, manufacturing firms were asked about unskilled labor, restaurants were asked about kitchen help, retail firms were asked about sales clerks, temporary agencies and document-processing firms were asked about clerical workers, universities were asked about cleaning and janitorial staff, and government personnel officers were asked about clerical workers.

Having selected the industries, a simple random sample of firms was drawn from the Board of Trade membership list. The Board of Trade

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12These figures were provided by Robert N. Gray of The Greater Washington Board of Trade.

13See Bendick and Egan (1988).
membership did not include governments, so the District Government and the Federal Government were added to the sample. The initial sample contained 72 organizations, 70 firms from the Board of Trade list plus 2 governmental organizations.

Each organization in the initial sample was telephoned in order to identify the senior personnel officer in the organization. That individual was telephoned in order to explain the purpose and nature of the study, to explain that we would be sending more detailed information about the study by mail, and to solicit an initial commitment to participate in the study. These calls were made during December, 1987.

Of the initial 72 organizations, 51 agreed to participate, for an initial response rate of 71 percent. Several of the firms that decided not to participate in the study did so because they did not employ significant numbers of entry-level persons. Each of the 51 participating organizations was telephoned again in January, 1988, in order to make an appointment for an in-person interview. Of the 51 who initially agreed to participate, seven declined to be interviewed, four were available to be interviewed only after the scheduled period for fielding the survey was over, and 40 were interviewed, for a final response rate of 56 percent if the seven postponed interviews are counted as refusals, and 65 percent if the seven postponed interviews are counted as responses.

The survey instrument
The 51 organizations that initially agreed to participate were mailed two letters, one from The Greater Washington Research Center and the other from The Greater Washington Board of Trade. The letters explained in more detail
the purpose and nature of the study and encouraged participation in the study. The letters were mailed at the end of December, 1987, and are reproduced in Appendix D.

The interview had three component parts. First, the respondent was asked by the interviewer to read a set of instructions pertaining to the hypothetical job applicant descriptions.

Second, the respondent was asked to review the descriptions, to then rank the descriptions from most attractive to least attractive, and finally to estimate the probability that each hypothetical applicant would be hired. The seven applicant characteristics, and the sixteen levels of those characteristics, result in sixteen job applicant descriptions. Past experience with conjoint surveys has shown that respondents find ranking that many descriptions difficult. In order to reduce this burden, each respondent was asked to evaluate either the first eight descriptions or the last eight descriptions. Half of the respondents were selected, at random, for the first set of descriptions, and the remaining half of the respondents were selected for the second set of descriptions.

Third, the respondent was asked a series of questions about the characteristics of the jobs the hypothetical applicants would be hired into, and about the steps in the hiring process at that firm. The questionnaire is reproduced in Appendix C.

**Conjoint analysis**

The survey data produced by the third phase of the interview are analyzed in the next chapter using conventional methods: frequency distributions, means, and cross-tabulations. The analysis of the rankings of the job applicant
descriptions makes use of a market research technique called conjoint analysis.\textsuperscript{14} The conjoint methodology used in this study is presented in detail in Appendix A.

\textsuperscript{14}The literature on conjoint analysis is extensive. Green and Rao (1971) provide a good overview of the technique.
III. EMPLOYER PREFERENCES AMONG UNSKILLED JOB APPLICANT CHARACTERISTICS

Conjoint results
The results of the conjoint analysis of employer preferences are presented in Table 1. The table shows the impact of a change in a particular characteristic of a job applicant (column 1) on the likelihood of being hired (column 2).

In the first column, an arrow indicates that the characteristic is changing from the level preceding the arrow to the level following the arrow. The first row, for example, indicates that improving a job applicant's motivation from a low level to an intermediate level increases his or her chances of being hired by 18.70 percent.

The third column presents the standard errors of the estimated impacts. The fourth column presents the t-statistics of the estimated impacts. The final column presents the probability that each estimated impact is statistically insignificant, i.e., equal to zero.

The tested characteristics are listed in order of decreasing impact. The results show that improvements in the applicant's motivation, reliability, and appearance increase the chances of securing employment significantly more than does getting a high school diploma or completing a training program. Increasing a job applicant's motivation from a low level to a high level increases the chances of being hired by 28.78 percent; whereas, receiving a high school diploma increases the chances of being hired by 3.36 percent.
<table>
<thead>
<tr>
<th>Change in the Job Applicant Characteristic</th>
<th>Increase in the Likelihood of Being Hired (% Points)</th>
<th>Standard Error</th>
<th>t-Statistic</th>
<th>Prob. Impact-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low -&gt; Medium</td>
<td>18.70%</td>
<td>3.56</td>
<td>5.25</td>
<td>0.00</td>
</tr>
<tr>
<td>Low -&gt; High</td>
<td>28.78%</td>
<td>4.07</td>
<td>7.05</td>
<td>0.00</td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unconventional -&gt; Conventional</td>
<td>15.85%</td>
<td>2.84</td>
<td>5.57</td>
<td>0.00</td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unreliable -&gt; Reliable</td>
<td>15.51%</td>
<td>2.97</td>
<td>5.21</td>
<td>0.00</td>
</tr>
<tr>
<td>Work Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed over the last 2 years -&gt; Working steadily during the last 2 years</td>
<td>13.57%</td>
<td>2.83</td>
<td>4.78</td>
<td>0.00</td>
</tr>
<tr>
<td>Speech</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-standard -&gt; Standard English</td>
<td>9.38%</td>
<td>2.93</td>
<td>3.20</td>
<td>0.00</td>
</tr>
<tr>
<td>Job-Specific Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No training -&gt; Training</td>
<td>3.87%</td>
<td>3.20</td>
<td>1.21</td>
<td>0.22</td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No diploma -&gt; Diploma</td>
<td>3.36%</td>
<td>2.83</td>
<td>1.18</td>
<td>0.23</td>
</tr>
<tr>
<td>Model Statistics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root MSE 25.32098, R-square 0.3351, Coefficient of Variation 71.37067</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dep. Mean 35.47813, Adj. R-square 0.3180, F-Statistic 19.593</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Completing a job-specific training program increases the chances of being hired by 3.87 percent. Moreover, the last three columns of the table indicate that the impacts of a high school diploma and of a job-specific training program are not distinguishable from zero at conventional levels of significance.

Working steadily over the past two years, as opposed to being unemployed, has an intermediate impact, 13.57 percent, on the chances of being hired. Using standard English speech also has an intermediate impact, 9.38 percent. All of the estimated impacts, except those of high school and job-specific training, are different from zero at the 99 percent significance level.

Importance score results
In order to verify the conjoint results, the survey interview included a standard, straightforward question on the importance of each job applicant characteristic. The question asked the personnel officers to assign an importance score to each characteristic, using a 10-point scale in which 1 indicated that the characteristic was not at all important, and 10 indicated that the characteristic was extremely important.

Table 2 summarizes the results of this question. Since a greater number of characteristics could be included in this question than could be included in the conjoint portion of the interview, a total of twelve characteristics were tested. The additional characteristics were (1) completing an in-house training program, (2) not having a police record, and (3) completing a work-readiness training program. In addition, completing high school was disaggregated into (1) receiving a diploma from a suburban
high school, (2) receiving a diploma from a central city high school, and
(3) receiving a high school equivalency certificate (GED). This was done in
order to determine whether the type of high school completion was important
to employers.

Table 2
Mean importance scores of job applicant characteristics
(1 - not at all important, 10 - extremely important)

<table>
<thead>
<tr>
<th>Job Applicant Characteristic</th>
<th>Mean Importance Score</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliable</td>
<td>9.57</td>
<td>0.68</td>
</tr>
<tr>
<td>Highly motivated</td>
<td>8.72</td>
<td>1.47</td>
</tr>
<tr>
<td>In-house training</td>
<td>8.66</td>
<td>2.13</td>
</tr>
<tr>
<td>No police record</td>
<td>8.25</td>
<td>2.55</td>
</tr>
<tr>
<td>Good appearance</td>
<td>7.85</td>
<td>2.07</td>
</tr>
<tr>
<td>Steady work in last 2 years</td>
<td>7.47</td>
<td>2.40</td>
</tr>
<tr>
<td>Standard english speech</td>
<td>7.17</td>
<td>2.18</td>
</tr>
<tr>
<td>Job-specific training</td>
<td>5.83</td>
<td>3.03</td>
</tr>
<tr>
<td>Suburban high school diploma</td>
<td>5.72</td>
<td>3.03</td>
</tr>
<tr>
<td>Central city high school diploma</td>
<td>5.67</td>
<td>3.02</td>
</tr>
<tr>
<td>Work-readiness training</td>
<td>5.61</td>
<td>2.89</td>
</tr>
<tr>
<td>GED certificate</td>
<td>5.45</td>
<td>2.83</td>
</tr>
</tbody>
</table>

The figures in Table 2 are generally consistent with the conjoint results. The characteristics receiving the highest average importance scores were, in descending order of importance, reliability (9.57), a high
level of motivation (8.72), completing an in-house training program (8.66), the absence of a police record (8.25), and good appearance (7.85).

The characteristics receiving the lowest average importance scores were, again in descending order of importance, completing a job-specific training program (5.83), receiving a diploma from a suburban high school (5.72), receiving a diploma from a central city high school (5.67), completing a work-readiness training program (5.61), and receiving a GED certificate (5.45).

In addition to the general conclusion that formal education and skills training are valued little by personnel officers, these figures also indicate that personnel officers do not distinguish between a diploma from a central city high school and one from a suburban high school. On the other hand, they do distinguish between a high school diploma and a GED certificate.

The right-hand column of the table displays the standard deviation of each mean score. These figures indicate the degree with which all the personnel officers gave similar scores to each characteristic. A larger standard deviation means that the characteristic received a wide range of scores, and a small standard deviation means that most of the personnel officers gave the characteristic the same score. The table shows that, although completing high school and completing an outside training program received low scores on average, these characteristics also generated the greatest amount of disagreement among the interviewed personnel officers.

The low score for work-readiness training is an anomaly, since it was defined during the interview as training in motivation and attitude. This result may have been caused by the general unfamiliarity to some
respondents of the term "work-readiness training," even though they gave high importance scores to each of the components of this type of training.

**The most important characteristic**

Table 3 presents the results of asking the personnel officers about their preferences in yet another, even simpler fashion. Each survey respondent was asked in an open-ended way to state the most important characteristic of an entry-level job applicant. "Open-ended" means that the interviewer did not suggest any possible answers. The question was asked as "What is the most important characteristic?" rather than as "Which of the following characteristics do you think are most important?" It should be noted that

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation or attitude</td>
<td>18</td>
</tr>
<tr>
<td>Reliability</td>
<td>11</td>
</tr>
<tr>
<td>Work experience</td>
<td>9</td>
</tr>
<tr>
<td>Appearance</td>
<td>9</td>
</tr>
<tr>
<td>Speech or communications skills</td>
<td>7</td>
</tr>
<tr>
<td>Pleasant or outgoing personality</td>
<td>2</td>
</tr>
<tr>
<td>Honest</td>
<td>2</td>
</tr>
<tr>
<td>Understands instructions</td>
<td>1</td>
</tr>
<tr>
<td>Adaptability</td>
<td>1</td>
</tr>
<tr>
<td>Cooperative</td>
<td>1</td>
</tr>
</tbody>
</table>
this question was asked late in the interview, following extensive
discussion of specific characteristics (see the survey instrument in
Appendix C).

The table shows that motivation or attitude, reliability, work
experience, appearance, and speech or communications skills were mentioned
most often. Again, motivation or attitude was mentioned more than any other
characteristic.

Other important characteristics
Personnel officers were also asked specifically whether there were other
important characteristics of job applicants that had not yet been mentioned
during the interview. Table 4 indicates that a wide range of
characteristics was mentioned, and that no single characteristic was
mentioned by many respondents.
Table 4
Other important characteristics of a job applicant

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number of Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation or attitude</td>
<td>3</td>
</tr>
<tr>
<td>Job references</td>
<td>2</td>
</tr>
<tr>
<td>No physical impairment</td>
<td>2</td>
</tr>
<tr>
<td>Schedule flexibility</td>
<td>2</td>
</tr>
<tr>
<td>Ability to follow instructions</td>
<td>1</td>
</tr>
<tr>
<td>Work experience</td>
<td>1</td>
</tr>
<tr>
<td>Typing skills</td>
<td>1</td>
</tr>
<tr>
<td>Reliability</td>
<td>1</td>
</tr>
<tr>
<td>Initiative</td>
<td>1</td>
</tr>
<tr>
<td>Established child care arrangements</td>
<td>1</td>
</tr>
<tr>
<td>Neat job application</td>
<td>1</td>
</tr>
<tr>
<td>Participates in other social activities</td>
<td>1</td>
</tr>
<tr>
<td>Work ethic</td>
<td>1</td>
</tr>
<tr>
<td>Attends church</td>
<td>1</td>
</tr>
<tr>
<td>Willing to join a union</td>
<td>1</td>
</tr>
</tbody>
</table>

Characteristics of current entry-level employees

In order to understand the context of the personnel officers' reported preferences, we asked each survey respondent to estimate the proportion of the firm's current employees who have each of the tested characteristics. Table 5 presents the average percentage of the firm's current entry-level employees who have each of the listed characteristics. (Motivation and
appearance were excluded from this question because they are difficult to measure objectively and because asking about them might put some personnel officers in an awkward position: "How many of your current employees are poorly motivated?")

<table>
<thead>
<tr>
<th>Employee Characteristic</th>
<th>Mean Percent</th>
<th>Standard Deviation</th>
<th>Valid Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>No police record</td>
<td>94.06%</td>
<td>8.29</td>
<td>31</td>
</tr>
<tr>
<td>Steady work prior to working here</td>
<td>78.05%</td>
<td>28.13</td>
<td>40</td>
</tr>
<tr>
<td>Standard English</td>
<td>74.41%</td>
<td>26.66</td>
<td>29</td>
</tr>
<tr>
<td>In-house training</td>
<td>73.28%</td>
<td>39.65</td>
<td>32</td>
</tr>
<tr>
<td>Suburban high school diploma</td>
<td>44.23%</td>
<td>34.33</td>
<td>13</td>
</tr>
<tr>
<td>Central city high school diploma</td>
<td>38.08%</td>
<td>22.41</td>
<td>13</td>
</tr>
<tr>
<td>Job-specific training</td>
<td>29.85%</td>
<td>34.49</td>
<td>7</td>
</tr>
<tr>
<td>Work-readiness training</td>
<td>8.59%</td>
<td>18.63</td>
<td>30</td>
</tr>
<tr>
<td>GED certificate</td>
<td>8.08%</td>
<td>13.96</td>
<td>5</td>
</tr>
</tbody>
</table>

Many of the respondents did not know the answers to this question. The final column of Table 5 presents the number of responses, after eliminating "don't know" and "not applicable" responses, upon which the means were computed. The mean percentages in Table 5 are based only on those respondents who did know. The table indicates that employees with a police record, employees who have received a GED certificate, and employees who have completed a work-readiness training program are rare. Approximately 30 percent of the unskilled employees had completed a
job-specific training program; 38 percent had received a diploma from a central city high school; and 44 percent had received a diploma from a suburban high school. Approximately three-quarters of unskilled employees had worked steadily prior to working at the firm, use standard English speech, and have completed an in-house training program.

This table also reports the standard deviations of the mean percentages. The large size of the standard deviations results from the fact that many personnel officers did not know the answer to this question.

Summary
The figures presented in this chapter consistently show that personnel officers feel that the more subjective characteristics of entry-level, unskilled job applicants such as motivation, attitude, and appearance have a significantly greater impact on the hiring decision than does completion of high school or completion of a training program.
IV. CHARACTERISTICS OF THE JOBS

Overview

Interpreting the findings of the last chapter requires, for two reasons, an understanding of the nature of the jobs for which the hypothetical job applicants were being considered. The first reason is that the study has been couched in terms of a training program participant getting a stable, permanent job. It has not focused on whether or not the job is associated with a high wage rate or fringe benefits, nor has it focused on opportunities for promotion.

For example, the relatively small impact of completing high school on the likelihood of being hired, presented in the last chapter, should be interpreted only in terms of getting an entry-level job. Completing high school may have a considerably larger impact on the likelihood of getting a job with fringe benefits and a higher wage rate, and on the likelihood of being promoted.

The second reason is that the sample of firms used in this study was drawn from the list of members of The Greater Washington Board of Trade. Because the Board of Trade's membership consists disproportionately of larger firms, compared to all area employers, as discussed in Chapter II, the entry-level jobs considered in this study may differ systematically from the typical entry-level job. Identifying the characteristics of the entry-level jobs in this study is thus necessary to determine how they differ from the typical entry-level job.
Wage rate

Table 6 presents the distribution of hourly wage rates of the jobs for which the hypothetical applicants were considered. Column 2 of the table shows the number of survey respondents giving each wage rate; column 3 shows the percentage of the forty respondents giving each wage rate; column 4 shows the cumulative number of respondents giving the indicated wage rate or less; and column 5 shows the cumulative percentage of respondents giving the indicated wage rate or less.

Table 6
Hourly wage rate

<table>
<thead>
<tr>
<th>Q14</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t know</td>
<td>4</td>
<td>10.0</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>$4.00</td>
<td>1</td>
<td>2.5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>$4.25</td>
<td>2</td>
<td>5.0</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>$4.35</td>
<td>1</td>
<td>2.5</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>$4.50</td>
<td>2</td>
<td>5.0</td>
<td>10</td>
<td>25.0</td>
</tr>
<tr>
<td>$4.55</td>
<td>1</td>
<td>2.5</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>$5.00</td>
<td>3</td>
<td>7.5</td>
<td>14</td>
<td>35.0</td>
</tr>
<tr>
<td>$5.29</td>
<td>1</td>
<td>2.5</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>$5.50</td>
<td>5</td>
<td>12.5</td>
<td>20</td>
<td>50.0</td>
</tr>
<tr>
<td>$5.53</td>
<td>1</td>
<td>2.5</td>
<td>21</td>
<td>52.5</td>
</tr>
<tr>
<td>$5.64</td>
<td>1</td>
<td>2.5</td>
<td>22</td>
<td>55.0</td>
</tr>
<tr>
<td>$5.65</td>
<td>1</td>
<td>2.5</td>
<td>23</td>
<td>57.5</td>
</tr>
<tr>
<td>$5.73</td>
<td>1</td>
<td>2.5</td>
<td>24</td>
<td>60.0</td>
</tr>
<tr>
<td>$5.88</td>
<td>1</td>
<td>2.5</td>
<td>25</td>
<td>62.5</td>
</tr>
<tr>
<td>$6.00</td>
<td>3</td>
<td>7.5</td>
<td>28</td>
<td>70.0</td>
</tr>
<tr>
<td>$6.25</td>
<td>1</td>
<td>2.5</td>
<td>29</td>
<td>72.5</td>
</tr>
<tr>
<td>$6.28</td>
<td>1</td>
<td>2.5</td>
<td>30</td>
<td>75.0</td>
</tr>
<tr>
<td>$6.50</td>
<td>1</td>
<td>2.5</td>
<td>31</td>
<td>77.5</td>
</tr>
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<td>$6.73</td>
<td>1</td>
<td>2.5</td>
<td>32</td>
<td>80.0</td>
</tr>
<tr>
<td>$7.00</td>
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<td>5.0</td>
<td>34</td>
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</tr>
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<td>$7.05</td>
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<td>2.5</td>
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<td>87.5</td>
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<td>$7.50</td>
<td>1</td>
<td>2.5</td>
<td>36</td>
<td>90.0</td>
</tr>
<tr>
<td>$7.65</td>
<td>3</td>
<td>7.5</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>$8.58</td>
<td>1</td>
<td>2.5</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean $5.79
The mean wage rate is $5.79 per hour; however, rates range from a low of $4.00 to a high of $8.58.

**Hours per week**

Table 7 indicates that seven out of eight firms reported that their entry-level unskilled jobs are full time.

<table>
<thead>
<tr>
<th>Table 7</th>
<th>Full-time status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q15A</td>
<td>Frequency</td>
</tr>
<tr>
<td>Yes</td>
<td>35</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 8 shows the number of hours per week for the jobs not considered to be full time. The number of hours per week for part-time jobs ranged from 16 to 37 hours.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q15B</td>
<td>Frequency</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>35</td>
</tr>
</tbody>
</table>
**Permanent status**

Table 9 shows that over three-quarters (77.5 percent) of the jobs are considered by the personnel officer to be permanent. This figure does not include the probationary period that occurs during the first several months of many of these jobs, described in the next chapter. Most of the temporary jobs were at the several temporary agencies in the survey sample.

<table>
<thead>
<tr>
<th>Q16</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31</td>
<td>77.5</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>22.5</td>
</tr>
</tbody>
</table>

**Health benefits**

An issue of particular concern to the Greater Washington Research Center was whether the jobs had health benefits. Table 10 shows that four out of five firms made employees in these entry-level, unskilled jobs eligible for some form of health benefits. Health plans often require that the employee complete one or more years on the job prior to participating in the plan. Eligibility is used here to mean that the newly hired person will be given the opportunity to participate after the minimum longevity on the job is achieved.
Table 10  
Eligible for health benefits

<table>
<thead>
<tr>
<th>Q17</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>80.0</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>20.0</td>
</tr>
</tbody>
</table>

Table 11 indicates that, of the firms that make their unskilled employees eligible for health benefits, essentially all offer a health plan that contains the option of covering the employee’s family.

Table 11  
Family health insurance coverage available

<table>
<thead>
<tr>
<th>Q18</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No plan</td>
<td>8</td>
<td>20.0</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>77.5</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>2.5</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Summary

The jobs for which entry-level, unskilled applicants would be considered are primarily fairly low-wage, permanent, full-time jobs that have health benefits. The surprisingly high percentage of these jobs that provide health benefits may be associated with the large average size of firms belonging to the Board of Trade.
V. THE HIRING PROCESS

Overview

A fact that has recently become increasingly clear is that the act of hiring a person for an unskilled position is not a single event that occurs at one point in time. Rather, it typically involves several stages and several representatives of the employer.

Since the primary findings of the study concern employer preferences among alternative job candidates in the hiring decision, as distinct from the promotion decision or the retention decision, it is important to understand the nature of the hiring decision. Toward this end, the survey respondent was asked in an open-ended way to describe the minimum requirements of the position and the steps in the hiring process.

Requirements of the position

Tables 12 and 13 indicate the minimum and maximum age requirements of the unskilled positions. The tables show that the age requirements are generally not restrictive: The large majority of these positions have a lower limit of 16 or 18 years of age, and the large majority of the positions have an upper limit of 70 years of age.
Table 12
Youngest age of employee permitted

<table>
<thead>
<tr>
<th>Q12</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>8</td>
<td>20.0</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>17</td>
<td>3</td>
<td>7.5</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>18</td>
<td>23</td>
<td>57.5</td>
<td>34</td>
<td>85.0</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>2.5</td>
<td>35</td>
<td>87.5</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
<td>10.0</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>24</td>
<td>1</td>
<td>2.5</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 18.0

Table 13
Oldest age of employee permitted

<table>
<thead>
<tr>
<th>Q13</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Frequency</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>1</td>
<td>2.5</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>45</td>
<td>3</td>
<td>7.5</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>48</td>
<td>1</td>
<td>2.5</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>50</td>
<td>1</td>
<td>2.5</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>60</td>
<td>1</td>
<td>2.5</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>62</td>
<td>1</td>
<td>2.5</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>65</td>
<td>3</td>
<td>7.5</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>70</td>
<td>28</td>
<td>70.0</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>75</td>
<td>1</td>
<td>2.5</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean 65.6

Tables 14 and 15 indicate the minimum reading and mathematical skills required by the positions. The skill levels are measured in terms of school grade level. The row labeled "Not Asked" indicates that these questions were added to the questionnaire after ten interviews had already
been completed. The cumulative percentages are provided both in terms of the total 40 interviews and in terms of the 30 interviews that included this question.

The mean requirement for reading skills was eighth grade level, and the mean requirement for mathematical skills was seventh grade level. Unlike the age requirements, there was a significant dispersion among these figures. One-third of these positions required a reading level above the ninth grade, and 37 percent of the positions required mathematical skills above the ninth grade level. At the other end of the spectrum, 27 percent of the positions required reading skills at or below the sixth grade level, and 30 percent of the positions required mathematics skills at or below the sixth grade level.

These figures suggest that, while some training program enrollees may not have the reading and/or math skills required by an entry-level position, the large majority of enrollees could be matched with a position whose reading and math skills would be satisfied.\textsuperscript{15}

\textsuperscript{15}This conclusion is based on unpublished tables provided by Vikki Gregory and The Greater Washington Research Center. The tables were developed in preparation of Gregory (1988). Even though the geographic scope of the Gregory study was narrower (programs predominantly serving residents of Washington, D.C.) than that of this study (the Washington, D.C., metropolitan area, including Maryland and Virginia suburbs), these comparisons are appropriate because District programs place their participants in jobs throughout the metropolitan area.
### Table 14
**Minimum required reading level**

<table>
<thead>
<tr>
<th>Q13A</th>
<th>Frequency (N=40)</th>
<th>Cumulative Percent (N=40)</th>
<th>Frequency (N=30)</th>
<th>Cumulative Percent (N=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not asked</td>
<td>10</td>
<td>25.0</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>25.0</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>5th Grade</td>
<td>1</td>
<td>35.0</td>
<td>1</td>
<td>13.3</td>
</tr>
<tr>
<td>6th Grade</td>
<td>4</td>
<td>45.0</td>
<td>4</td>
<td>26.6</td>
</tr>
<tr>
<td>7th Grade</td>
<td>2</td>
<td>50.0</td>
<td>2</td>
<td>33.3</td>
</tr>
<tr>
<td>8th Grade</td>
<td>6</td>
<td>65.0</td>
<td>6</td>
<td>53.3</td>
</tr>
<tr>
<td>9th Grade</td>
<td>4</td>
<td>75.0</td>
<td>4</td>
<td>66.6</td>
</tr>
<tr>
<td>10th Grade</td>
<td>3</td>
<td>82.5</td>
<td>3</td>
<td>76.6</td>
</tr>
<tr>
<td>11th Grade</td>
<td>1</td>
<td>85.0</td>
<td>1</td>
<td>79.9</td>
</tr>
<tr>
<td>12th Grade</td>
<td>6</td>
<td>100.0</td>
<td>6</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Mean** 8.0

### Table 15
**Minimum required math level**

<table>
<thead>
<tr>
<th>Q13A</th>
<th>Frequency (N=40)</th>
<th>Cumulative Percent (N=40)</th>
<th>Frequency (N=30)</th>
<th>Cumulative Percent (N=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not asked</td>
<td>10</td>
<td>25.0</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
<td>37.5</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>3rd Grade</td>
<td>1</td>
<td>40.0</td>
<td>1</td>
<td>20.0</td>
</tr>
<tr>
<td>5th Grade</td>
<td>1</td>
<td>42.5</td>
<td>1</td>
<td>23.3</td>
</tr>
<tr>
<td>6th Grade</td>
<td>2</td>
<td>47.5</td>
<td>2</td>
<td>30.0</td>
</tr>
<tr>
<td>7th Grade</td>
<td>3</td>
<td>55.5</td>
<td>3</td>
<td>40.0</td>
</tr>
<tr>
<td>8th Grade</td>
<td>4</td>
<td>65.0</td>
<td>4</td>
<td>53.3</td>
</tr>
<tr>
<td>9th Grade</td>
<td>3</td>
<td>72.5</td>
<td>3</td>
<td>63.3</td>
</tr>
<tr>
<td>10th Grade</td>
<td>4</td>
<td>82.5</td>
<td>4</td>
<td>76.6</td>
</tr>
<tr>
<td>11th Grade</td>
<td>1</td>
<td>85.0</td>
<td>1</td>
<td>79.9</td>
</tr>
<tr>
<td>12th Grade</td>
<td>6</td>
<td>100.0</td>
<td>6</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Mean** 7.0
Steps in the hiring process

Hiring an unskilled person most commonly involves three steps: the applicant filling out a written application, being interviewed by the potential employer, and being hired into a probationary status for from one month to a year, as shown in Table 16. Personnel officers were asked in an open-ended way to outline the steps in their hiring process. The table shows the number of personnel officers who mentioned each of the listed items, disaggregated by whether the item was mentioned as the first, second, or third activity in the sequence of steps in the hiring process.

Most applicants also participate in a training program operated by the employer; however, the employer usually does not view the training program per se as being a part of the decision to hire the applicant, but rather views it as one of the activities in the probationary period.

Additional steps mentioned regularly include checking the applicant's references and, especially for "white-collar" positions, administering a test to the applicant.

Table 16
Steps in the hiring process

<table>
<thead>
<tr>
<th>First Step</th>
<th>Number</th>
<th>Second Step</th>
<th>Number</th>
<th>Third Step</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>17</td>
<td>Interview</td>
<td>16</td>
<td>Probation</td>
<td>16</td>
</tr>
<tr>
<td>Interview</td>
<td>10</td>
<td>Reference check</td>
<td>6</td>
<td>Interview</td>
<td>3</td>
</tr>
<tr>
<td>Testing</td>
<td>5</td>
<td>Training</td>
<td>6</td>
<td>Reference check</td>
<td>2</td>
</tr>
<tr>
<td>Two interviews</td>
<td>4</td>
<td>Probation</td>
<td>4</td>
<td>Testing</td>
<td>2</td>
</tr>
<tr>
<td>Reference check</td>
<td>4</td>
<td>Testing</td>
<td>3</td>
<td>Physical examination</td>
<td>1</td>
</tr>
</tbody>
</table>
Another component of the overall hiring process is the method by which the firm generates applicants for unskilled positions. Table 17 lists the sources of unskilled job applicants mentioned by personnel officers. The total number of times all the sources were mentioned is greater than forty because several respondents listed more than one source.

The most common sources of applicants are referrals by current employees, help wanted advertisements in newspapers, and applicants simply walking into the personnel office. Beyond these three common sources, a wide range of additional sources was mentioned by approximately half of the personnel officers. These included several specific employment and training-related programs, as well as recruiting at schools and at job fairs.

An employment or training-related program was mentioned eight times. The mentioned organizations were employment programs operated by the D.C. government, the United Planning Organization, the International Rescue Mission, the Prince George’s County Forum, and Project Success. Among those firms that mentioned these programs, the programs were never mentioned as being a major sources of the firm’s applicants. Rather, the programs were mentioned as secondary sources by firms that also use current employee referrals, newspaper advertisements, and walk-ins as their major sources of applicants.
Table 17
Sources of job applicants

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral by current employee</td>
<td>23</td>
</tr>
<tr>
<td>Newspaper advertisements</td>
<td>20</td>
</tr>
<tr>
<td>Walk-ins</td>
<td>11</td>
</tr>
<tr>
<td>Employment agency</td>
<td>5</td>
</tr>
<tr>
<td>Job fair</td>
<td>4</td>
</tr>
<tr>
<td>Colleges</td>
<td>3</td>
</tr>
<tr>
<td>D.C. employment programs</td>
<td>3</td>
</tr>
<tr>
<td>Vocational school</td>
<td>2</td>
</tr>
<tr>
<td>Bulletin board</td>
<td>2</td>
</tr>
<tr>
<td>High schools</td>
<td>2</td>
</tr>
<tr>
<td>United Planning Organization</td>
<td>2</td>
</tr>
<tr>
<td>Trade association internship program</td>
<td>2</td>
</tr>
<tr>
<td>International Rescue Mission</td>
<td>1</td>
</tr>
<tr>
<td>Prince George's County Forum</td>
<td>1</td>
</tr>
<tr>
<td>Church</td>
<td>1</td>
</tr>
<tr>
<td>Referral by another store</td>
<td>1</td>
</tr>
<tr>
<td>Project Success</td>
<td>1</td>
</tr>
</tbody>
</table>

A final component of the hiring process is whether the employer checks the police record of the applicant. Table 18 indicates that 30 percent of personnel officers regularly check an applicant's police record. Those respondents who said they checked police records were also asked how...
they checked. The results of this survey question are not reported because essentially none of the respondents knew the answer, or was willing to report the answer to the interviewer.

<table>
<thead>
<tr>
<th>Table 18</th>
<th>Police record checked during hiring process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q10</td>
<td>Frequency</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
</tr>
<tr>
<td>No</td>
<td>28</td>
</tr>
</tbody>
</table>

Summary

The formal age, reading skill, and mathematics skill requirements of entry-level, unskilled jobs are not so restrictive that they would limit the access of the average Washington-area training program enrollee to those jobs.

The entry-level hiring process typically involves the applicant filling out an application, being interviewed, and working for several months in a probationary status. The process may also include tests of clerical skills. The hiring decision is not completed until all of these steps are successfully completed.

Washington-area employers typically recruit for entry-level positions by using referrals from current employees, classified advertisements in newspapers, and people who walk in off the street.
VI. CONCLUSION

The central conclusion of the study is provided by the survey respondents themselves, who were asked at the end of the interview to state the one thing they would like training programs to do better or to do more of. Table 19 summarizes the answers to this open-ended question. Personnel officers felt that training programs should devote themselves to improving the level of motivation and the reliability of their participants. None of the personnel officers felt that training programs should focus on basic education or on vocational skills.

There appear to be several reasons behind this view. First, virtually all middle-sized and large firms develop the vocational skills necessary for the performance of their entry-level positions in-house. Although we did not ask the personnel officers directly, our impression was that employers would have their new hires go through an in-house program even if the new hire had recently completed an external training program. Employers appear to feel that external training programs do not improve the productivity of the new hire enough so that he or she can skip the in-house training, and thus external training programs do not result in any reduction in the cost of in-house training.

Second, the entry-level jobs that were the subject of this study do not generally require more than a seventh or eighth grade level of basic education. Employers appear to feel that completing high school does not add significantly to the job applicant's productivity on this type of job.
### Table 19
**Recommended focus of training programs**

<table>
<thead>
<tr>
<th>Skills</th>
<th>Number of Times Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation or attitude</td>
<td>19</td>
</tr>
<tr>
<td>Reliability</td>
<td>15</td>
</tr>
<tr>
<td>Speech or language skills</td>
<td>6</td>
</tr>
<tr>
<td>Interviewing skills</td>
<td>6</td>
</tr>
<tr>
<td>Filling out an application</td>
<td>3</td>
</tr>
<tr>
<td>Appearance</td>
<td>3</td>
</tr>
<tr>
<td>Self-esteem, self-confidence</td>
<td>2</td>
</tr>
<tr>
<td>Assess the job market better</td>
<td>1</td>
</tr>
<tr>
<td>Dedication</td>
<td>1</td>
</tr>
<tr>
<td>Provide emotional support</td>
<td>1</td>
</tr>
<tr>
<td>Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>Work ethic</td>
<td>1</td>
</tr>
<tr>
<td>Reading, arithmetic</td>
<td>1</td>
</tr>
<tr>
<td>Honesty</td>
<td>1</td>
</tr>
<tr>
<td>Respect for the employer</td>
<td>1</td>
</tr>
</tbody>
</table>

What *does* increase a person’s productivity in an entry-level position, in the opinion of personnel officers, is that the person has the motivation to work hard and has the reliability to show up on time every business day. Employers perceive a scarcity of these two qualities among applicants for entry-level positions.
As a result of these three factors, employers would recommend that training program resources be re-directed from basic education and vocational training to focusing on work-readiness training. Personnel officers do not make this recommendation naively in the belief that focusing on work-readiness is simple, or even necessarily possible in all cases. Our survey respondents generally appeared to have a great deal of hands-on experience both in training unskilled new hires and in managing the strengths and weaknesses of such people after they are on the job.

This is the conclusion of the study from the employer's point of view. The conclusion of the study from the public policy perspective is less straightforward. In this study, we have determined that, if the objective of the training program is to secure an entry-level job for its participants, the employer's recommendation for re-directing resources is appropriate.

If, however, the objective of the training program is to secure a job that is better than such entry-level jobs, the employer's recommendation may not be appropriate. Although this study did not examine any but the lowest skill, lowest wage jobs, other studies have shown that "better" jobs often require more basic education and/or more vocational training than the entry-level jobs on which we have focused. Further, research has indicated that the reading and math skills of many training program participants may be insufficient to qualify them for these better jobs.

Placing the results of this study into this broader context leads to the conclusion that training programs that aim to place their participants into entry-level, low-wage jobs need only provide training in motivation, reliability, and attitude; whereas, programs that aim to place their
participants in better jobs must provide both work-readiness training and training in vocational and basic skills.

In the starkest terms, training programs are thus in the position of having to decide whether the type of entry-level job described in this report is acceptable as a goal for their training activities. If training programs aim to place their participants in this type of entry-level job, the programs should focus on work-readiness training. If, on the other hand, training programs reject this type of job and instead aim at placing their participants in higher paying jobs, training programs should provide a more comprehensive course that includes all three types of training.

On the plus side of the ledger for entry-level jobs found in the larger employers in the Washington, D.C., metropolitan area, they are generally permanent, full time, and have some fringe benefits. On the negative side, they are low-wage jobs, averaging $5.79 per hour. While such a wage is above the statutory minimum wage, full-time employment (2080 hours per year) at $5.79 generates barely enough earned income to raise a family of four out of poverty. The full-time annual earned income from such a job is $12,043, and the current poverty level of income for a family of four is $11,208 per year. If the entry-level employee were supporting a family of five or more, full-time employment at such a job would not remove the family from poverty.
APPENDIX A: CONJOINT ANALYSIS

Conjoint analysis consists of both (1) a particular way of collecting survey data, and (2) a particular method of analyzing the resulting data. The technique consists of decomposing the items (the hypothetical job applicant) the survey respondent (the personnel officer) is to evaluate into component characteristics, and into specific levels of those characteristics. Typically, the respondent is given a set of cards (descriptions of job applicants) which he or she is asked to rank from most preferred to least preferred. The conjoint survey can either stop at this point, or can continue by asking the respondent to assign a score to each card indicating the likelihood that the respondent would purchase (hire) the item (job applicant) described by the card.

A conjoint survey thus produces two sets of data: the rank of each job applicant and the probability that each applicant would be hired. The first set of data is ordinal, indicating which other applicants a given applicant is preferred to, and which other applicants are preferred to the given applicant. For example, an applicant with a rank of 3 is preferred over an applicant with a rank of 4, and is less preferred than an applicant with a rank of 2.

An ordinal ranking does not indicate how much one applicant is preferred to another. The second set of data is cardinal, both indicating the preference ordering of the applicants and indicating the magnitude of the preference for each applicant. For example, an applicant with a score of 50 is twice as likely to be hired as an applicant whose score is 25, and is one half as likely to be hired as an applicant with a score of 100.
Having collected the conjoint data, the next step is to perform a conjoint analysis. This is a specific form of a statistical technique called regression analysis. The details of how the conjoint regression equation is specified are presented below.

The conjoint regression equation produces estimates of the influence of each characteristic on the likelihood of being hired. Taking the completion of high school as an example, the conjoint statistical technique looks over all sixteen job applicants, computes the average score of the applicants with a high school diploma and the average score of the applicants without a high school diploma, and computes the difference between the two averages. That difference indicates how much an applicant's chances are improved by completing high school.

The conjoint regression equation performs this operation on all seven characteristics simultaneously, rather than one at a time as described above. The results of the analysis show how much the probability of being hired is increased or decreased by changing the level of any of the seven characteristics. Similar results are produced showing how much the preference ranking is increased or decreased by changing the level of any characteristic.

By comparing the impact of each characteristic on the likelihood of being hired to the impacts of the other characteristics, we can identify the characteristic that is the most effective at enhancing the chances that an unskilled person is hired. Identifying the most effective characteristics is the objective of the study, and leads to a recommendation to training program managers that program resources be targeted on those identified characteristics.
The data from the conjoint portion of the survey were transformed into an analysis database, as illustrated by Table A-1. Each interview is represented by eight rows in the database, one row for each of the eight job applicant descriptions evaluated by the respondent. The next eight rows contain the data from the next interview, and so on.

The columns in the figure represent variables in the database. The left-most column contains the score that the personnel officer gave to the description. All the other columns contain "dummy" variables, one for each of the seven characteristics in the descriptions. For example, the first variable might represent whether or not the applicant completed high school.

<table>
<thead>
<tr>
<th>Table A-1</th>
<th>Conjoint data base</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>1 1 0 1 1 0 0 0</td>
</tr>
<tr>
<td>30</td>
<td>0 1 0 1 1 0 0 0</td>
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<tr>
<td>35</td>
<td>1 0 0 1 1 0 0 0</td>
</tr>
<tr>
<td>40</td>
<td>1 1 1 1 1 0 0 0</td>
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<tr>
<td>70</td>
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</tr>
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<td>15</td>
<td>1 1 0 1 1 0 0 0</td>
</tr>
<tr>
<td>0</td>
<td>1 1 0 1 1 0 0 1</td>
</tr>
<tr>
<td>60</td>
<td>1 1 0 1 1 0 0 0</td>
</tr>
<tr>
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<td>50</td>
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<td>30</td>
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<td>45</td>
<td>1 1 0 1 1 0 0 0</td>
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<tr>
<td>90</td>
<td>1 1 0 1 1 0 0 0</td>
</tr>
<tr>
<td>90</td>
<td>1 1 0 1 1 0 0 0</td>
</tr>
<tr>
<td>30</td>
<td>1 1 0 1 1 0 0 1</td>
</tr>
</tbody>
</table>

The value of each dummy variable represents the level of the characteristic. For example, a value of 1 in the first variable in the first description indicates that the applicant had completed high school.
The value would be 0 if the applicant had not completed high school. Dummy variables are those that take only 0 and 1 as a value.

The next step is to estimate the parameters of a regression model of the impacts of each characteristic on the rating score. The model has a simple linear specification:

\[
\text{SCORE} = A_1 \times D_1 + A_2 \times D_2 + A_3 \times D_3 + A_4 \times D_4 + A_5 \times D_5 + A_6 \times D_6 + A_7 \times D_7
\]

where \( A_i \) are the parameters to estimate, and \( D_i \) are the dummy variables. One peculiarity of the specification is the absence of an intercept term. The intercept was omitted so that the estimated coefficients would measure the impacts as deviations from the average score. An additional detail is that motivation was represented by two dummy variables, since motivation had three levels.

The parameters of this equation were estimated using ordinary least squares.
APPENDIX B: MODE OF FUTURE SURVEYS

The fourth research objective listed in Chapter I was to determine whether a survey of this nature could be administered by mail and telephone. The motivation for this objective was the possibility of replicating the survey either on a larger scale in the Washington, D.C., area or in other metropolitan areas. While the cost of conducting in-person interviews with forty local respondents was reasonable, the cost of conducting more extensive surveys with in-person interviews may be prohibitive.

At the end of the survey interview, each personnel officer was asked whether he or she would have been willing to participate in the study if the survey were administered in the following manner:

1. A phone call to introduce the study and to explain its purpose.
2. A mailed packet containing the instructions, the glossary, and the descriptions of hypothetical job applicants.
3. A telephone interview to collect the respondent's rankings and scores of the job applicant descriptions, as well as to administer the remainder of the questionnaire.

The results of this question, presented in Table B-1, indicate that thirty percent of the personnel officers who agreed to participate in the

<table>
<thead>
<tr>
<th>Q22</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>28</td>
<td>70.0</td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Table B-1
Respondent would agree to participate if the survey were by mail and telephone
current study would have refused a telephone/mail survey. This would reduced the in-person survey response rate from 61 percent in the current survey\(^{16}\) to a telephone/mail survey response rate of 43 percent. While such a response rate is higher than that of a typical telephone/mail survey of business executives, which is approximately 30 to 35 percent, it is low enough to make the possibility of response bias in the findings of the study a concern.

Accepting the fact that the cost of in-person interviews in a more extensive study would probably be prohibitive, the implication of this result is that it is imperative to secure the active endorsement of the board of trade and other relevant business organizations in each metropolitan area, and to perform intensive mail and telephone follow-up of people who refuse initially to participate in the study.

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\(^{16}\)The response rate of 61% results from the response rate to telephone contact of 71% and the seven firms that had originally agreed to participate but subsequently refused an interview.
APPENDIX C: SURVEY INSTRUMENT

THE STUDY OF
ENTRY LEVEL HIRING

Sponsored by:
Greater Washington Research Center
1717 Massachusetts Ave. N.W.
Suite 403
Washington D.C. 20036

Conducted by:
Mathematica Policy Research, Inc.
600 Maryland Ave. S.W.
Suite 550
Washington D.C. 20024

Endorsed by the Greater Washington Board of Trade
Overview

The heart of the study is the interview with senior executives, such as yourself, responsible for hiring at the entry level; and the heart of the interview is a set eight descriptions of hypothetical applicants, over the age of 20, for entry level positions which do not require a high school diploma. The descriptions are included in this packet.

After you have read this material, I will ask you to do two simple things with the eight descriptions:

(1) The first task is to put them in order of preference, so that the one you find most attractive is first, the second most attractive is second, and so on until the description you find least attractive for filling an entry-level position in your organization is last.

(2) The second task is to rate the likelihood that you would hire each of the eight hypothetical job applicants, assuming that you had an entry-level opening.

We realize that it is impossible to simulate a realistic hiring situation, so that it is impossible for you to say exactly how likely you would be to hire the described individuals. A real hiring decision depends on many factors we cannot take into account in a research study.

The point of rating the likelihood of hiring these hypothetical job applicants is to help us distinguish between these two situations:
"Well, I put these job applicants in order, but none of them sounds very attractive to me. I doubt that I would ever hire any of them."

"Well, I put these job applicants in order, but they all sound pretty good to me. I would be happy to hire any one of them."

With this purpose in mind, I will ask you to indicate how likely you would be to hire each hypothetical applicant using a 0 to 100 scale. (For example, a 10% score means that you would be very unlikely to hire the person; and a 90% score means that you would be very likely to hire the person, again assuming that you were trying to fill an entry-level position.)

What We Are Trying to Measure

It is important that you understand the point of the sorting and rating tasks described above. We have constructed the eight descriptions around the key skills and other characteristics of job applicants for positions which do not require a high school diploma. Each description consists of a unique combination of those characteristics, as you will see when you read them. The skills and other characteristics are listed and defined in the Glossary.

When you put the eight descriptions in order of your preference for them (Task 1), you are implicitly telling us which specific skills and other
characteristics you value in an entry-level job applicant, and which characteristics are not important for such positions in your firm.

When you give each applicant a rating score (Task 2), you are telling us how much more you value some characteristics of job applicants over other characteristics. In other words, you are helping us tell whether you value a particular characteristic a great deal more than another, or whether you have only a mild preference for one over the other.

When we analyze the rankings (Task 1) and the ratings (Task 2) you provide, along with those of the other executives in the survey, we will be able to tell which skills and other characteristics are most valuable on average.

With that information, a broad range of education and training institutions throughout the Washington D.C. area will be able to focus their resources on those specific skills that count, and to avoid expending resources developing skills that are not valuable to businesses such as yours. Thus, the ultimate goal of our study is to generate a stream of more productive entry-level job applicants in the years to come.

The Glossary of terms used in the descriptions follows. The final item in this packet is the eight descriptions themselves.
The specific skills and characteristics we are studying are listed below. Each characteristic is explained and associated with two or more levels of the characteristic. For example, the characteristic called Job-Specific Training is associated with two levels: (1) the applicant has completed such a program, or (2) the applicant has not completed such a program.

Generally, one of the levels within each characteristic is considered to be "good," or better than the other levels, and another level within each set is generally considered to be worse than the other levels. In the case of the characteristic of having a high school diploma, for example, the first level (having a diploma) is the "good" level, and the second level (not having a diploma) is the "bad" level.

The descriptions of the hypothetical job applicants will consist of different combinations of "good" and "bad" levels of all the characteristics.

**High School**

This characteristic has two levels:

- **Has** completed high school or G.E.D. course, or
- **Has not** completed high school or G.E.D. course.

**Job-Specific Training**

By this characteristic, we mean that the job applicant has completed a course of training (not including training you provide in-house) designed to
give the person a specific skill required to perform the entry-level job in your firm. Examples of this would include graduating from a course in building maintenance, plumbing, word processing, food services, housekeeping, or equipment repair. Such courses typically last 10 to 20 weeks, and include both classroom training and supervised field work.

There are two levels of this characteristic:

Has graduated from a job-specific training course.

Has not graduated from a job-specific training course.

Work Experience

Work experience is meant in the general sense of having worked steadily over the last few years, and does not refer specifically to having a prior job in the same industry and performing the same tasks that would be required for the entry-level position at your firm.

This characteristic has two levels:

Has worked steadily over the last several years, or

Has been unemployed and out of school for the last year.

Attitude

This characteristic is very subjective, and focuses on your impression of the applicant's eagerness, alertness, and willingness to take direction during the job interview and during a subsequent probationary period.

This characteristic has three levels:

The applicant appears to be highly motivated, to want the position a great deal and gives you the impression of being happy to perform the duties associated with the position, or
The applicant appears to have an intermediate motivation, to be willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.

The applicant gives you the impression of being poorly motivated -- willing to perform the required duties, but with some reservation, and with some reluctance to accept direction from a supervisor.

Reliability

This characteristic is focused on being late for work and being absent from work. The characteristic is expressed in terms of being late or absent during a six-week period.

This characteristic has two levels:

The job applicant is 15 minutes late once during the six week probationary period, or

The applicant is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.

Appearance

By appearance, we mean that the applicant comes to a job interview dressed and groomed in a manner that is appropriate and standard for the entry-level position at your firm. This may mean wearing business clothes if the position involves contact with customers, or it may mean wearing clean work clothes if they are appropriate to the position. We are not referring to whether a female applicant is pretty or whether a male applicant is handsome.
There are two levels of this characteristic:

The applicant gives you the impression of being neat, clean, and well groomed at the job interview.

The applicant does not give you such an impression of being neat, clean, and well groomed at the job interview.

**Speech**

This characteristic refers to the ability to converse with other people using standard English grammar, vocabulary, and pronunciation. Generally, this characteristic would be more important if the entry-level position involves contact with the public or with customers. We are not referring to whether or not an applicant speaks with an accent.

This characteristic has two levels:

Speaks using **standard English**, or

Speaks using **slang**, and is unable to converse in standard English.

**INTERVIEW QUESTIONNAIRE**

Company Name: ____________________________________________

Respondent Name: __________________________________________

1. Do you have any questions after reviewing this material?
2. Now that you have reviewed the material, would you please put the
descriptions of the eight hypothetical job applicants in order of their
attractiveness to you in filling such an entry-level position at your
firm. Put the one you find most attractive on the top of the stack,
and the one you like least at the bottom of the stack. Please read me
the numbers in the top right corner of each description in the order
you have placed them.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Q. 2</th>
<th>Q. 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most preferred</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td></td>
<td></td>
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<tr>
<td>4th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td></td>
<td></td>
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<tr>
<td>6th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Now, please rate the likelihood that you would hire each one of these
applicants by writing a score between 0 and 100 in the box in the top
left corner of each sheet. Please read the score you gave to each
applicant in the same order you gave them to me before.

4. In your hiring decision for this specific entry-level position, what is
the most important characteristic about an entry-level job applicant?
5. How important is each of the following characteristics to you in making the hiring decision for these positions? Please indicate the importance of each one by using a 10 point scale, with 10 indicating that the characteristic is extremely important, and 1 indicating that it is not at all important.

<table>
<thead>
<tr>
<th>Q.5</th>
<th>Q.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having a high school diploma from a suburban high school</td>
<td></td>
</tr>
<tr>
<td>Having a high school diploma from a central city high school</td>
<td></td>
</tr>
<tr>
<td>Having a G.E.D. certificate</td>
<td></td>
</tr>
<tr>
<td>Completing job-specific training</td>
<td></td>
</tr>
<tr>
<td>Recent work experience</td>
<td></td>
</tr>
<tr>
<td>Being highly motivated</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
</tr>
<tr>
<td>Using standard English speech</td>
<td></td>
</tr>
<tr>
<td>Not having a police record</td>
<td></td>
</tr>
<tr>
<td>Completing work-readiness training</td>
<td></td>
</tr>
<tr>
<td>Completing in-house training</td>
<td></td>
</tr>
</tbody>
</table>

6. What percentage of your current employees in these particular entry-level positions possess each of the listed characteristics?
7. Are there any other characteristics of job applicants for these positions which are important for you in making a hiring decision that we have not listed?

No 2  (Go to Q. 10)

Yes 1  Please specify

8. How do these additional characteristics compare to the list I previously gave, in terms of their importance in your hiring decision? Please indicate the importance of each one by using a 10 point scale, with 10 indicating that the characteristic is extremely important, and 1 indicating that it is not at all important.


9. What percentage of your current employees in these positions have each of the characteristics you have mentioned?


10. Do you check the police record of applicants for this position at your organization?

Check 1

Don't check 2  (Skip to Q. 12)
11. By what procedures do you check the police record; and how does a police record influence your hiring decision?

12. What is the youngest age which you normally consider to be appropriate for this type of position?

13. What is the oldest age which you normally consider to be appropriate for this type of position?

13a. What is the minimum reading level you would normally consider to be accepted in an entry-level hire? (Please measure reading level in terms of school grade level.)

13b. What is the minimum math level you would normally consider to be accepted in an entry-level hire? (Please measure math level in terms of school grade level.)

14. What is the starting hourly wage rate for this type of job?
15. Are these positions normally full-time (40 hours per week)?
   a. Y
   b. N If NO, how many hours per week? ____________

16. Are these positions normally considered to be permanent positions?
   a. Y
   b. N

17. Do employees in these positions normally become eligible to participate in a health benefit plan sponsored by your firm?
   a. Y
   b. N (Go to Q. 19)

18. Does the employee have the option of covering his or her dependents with the health insurance?
   a. Y
   b. N

19. Speaking now about the employees currently holding these positions, from what sources did job applicants usually come? For example, did you advertise in the newspaper, or use a particular school or training program?

   __________________________________________
   __________________________________________
   __________________________________________
20. Please describe the hiring process you use for filling these positions. For example, do you use any testing at the point of application, or have a probation period, or have formal in-house training.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

21. If there were one thing you could encourage Washington-area education and training institutions to change in the way they prepare people for these types of positions, what would it be?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Thank you very much for your time. That concludes our interview.

We are currently interviewing approximately fifty businesses in the Washington Area, but are also considering expanding the survey to other cities. One of the issues we face is whether or not the interviews need to be conducted in person. Would you have ranked and scored the eight scenarios if we had sent them and the instructions to you in the mail?

Yes

No
APPENDIX D: INTRODUCTORY LETTERS

Greater Washington Research Center

December 16, 1987

Dear :

The Greater Washington Research Center is embarking on a study to determine how education and training programs can better prepare people for entry-level positions (i.e., positions that typically do not require a high school diploma) at Washington-area businesses. As a member of the business community, we are requesting your participation in this study toward achieving both the goal of full employment in our community as well as the goal of developing a more efficient and productive workforce. The Greater Washington Board of Trade has formally endorsed the study (see the accompanying letter) because it believes that the pay-off from the project is potentially useful to the business community.

We are convinced that the key to success for our study is hearing directly from Washington-area business executives about the specific types of training and personal characteristics which make a job applicant both qualified and desirable for an entry-level position.

As a means of hearing from executives such as yourself, we have retained Mathematica Policy Research, Inc., a research and consulting firm in Washington, to interview executives in a cross-section of Washington-area businesses. The interview will be conducted in-person by a senior member of the Mathematica staff. The interview will take approximately 40 minutes.
In the interview, we will ask you to describe the specific skills and other personal characteristics you and your staff look for when considering a person for an entry-level position. The information provided will be held in strict confidence and will never be attributed to your organization.

We will use the information you provide to help redesign training programs in the Washington metropolitan area so that they become (1) more effective in helping new members of the labor force get a job, and (2) more valuable for you by providing better prepared candidates for entry-level positions.

Thank you in advance for your help.

Sincerely,

Oliver T. Carr
Chairman
Dear:

The Greater Washington Research Center is beginning a study to determine how education and training programs in the Washington area can better prepare people for entry-level positions at Washington-area businesses.

You have recently been contacted by a member of the study team to arrange a confidential interview. An accompanying letter from the Research Center describes the study in greater detail.

The Greater Washington Board of Trade believes that this study is important to the business community in the Washington metropolitan area because the information it will provide should help produce a more productive and efficient workforce.

We sincerely urge you to participate in this study.

Sincerely,

Edmund B. Cronin, Jr.
APPENDIX E: JOB APPLICANT DESCRIPTIONS

Description # 1:

1. High School: Has not completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Appears highly motivated, wants the position a great deal and gives you the impression of being happy to perform the duties associated with the position.
5. Reliability: Is late once during the six week probationary period.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using standard English.

Description # 2:

1. High School: Has completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has worked steadily over the last several years.
4. Motivation: Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.
5. Reliability: Is late once during the six week probationary period.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.
### Description # 3:

1. **High School:**
   - Has completed high school.

2. **Specific job-related training:**
   - Has not graduated from a job-specific training course.

3. **Work experience:**
   - Has been unemployed and out of school for the last year.

4. **Motivation:**
   - Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.

5. **Reliability:**
   - Is late once during the six week probationary period.

6. **Appearance:**
   - Does not appear neat, clean, and well groomed at the job interview.

7. **Speech:**
   - Speaks using slang, and is unable to converse in standard English.

### Description # 4:

1. **High School:**
   - Has completed high school.

2. **Specific job-related training:**
   - Has not graduated from a job-specific training course.

3. **Work experience:**
   - Has worked steadily over the last several years.

4. **Motivation:**
   - Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.

5. **Reliability:**
   - Is late once during the six week probationary period.

6. **Appearance:**
   - Appears neat, clean, and well groomed at the job interview.

7. **Speech:**
   - Speaks using standard English.
**Description # 5:**

1. **High School:** Has not completed high school.
2. **Specific job-related training:** Has not graduated from a job-specific training course.
3. **Work experience:** Has worked steadily over the last several years.
4. **Motivation:** Appears highly motivated, wants the position a great deal and gives you the impression of being happy to perform the duties associated with the position.
5. **Reliability:** Is late once during the six week probationary period.
6. **Appearance:** Does not appear neat, clean, and well groomed at the job interview.
7. **Speech:** Speaks using standard English.

**Description # 6:**

1. **High School:** Has completed high school.
2. **Specific job-related training:** Has graduated from a job-specific training course.
3. **Work experience:** Has been unemployed and out of school for the last year.
4. **Motivation:** Appears poorly motivated, being willing to perform the required duties, but with some reservation, and with some reluctance to accept direction from a supervisor.
5. **Reliability:** Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.
6. **Appearance:** Does not appear neat, clean, and well groomed at the job interview.
7. **Speech:** Speaks using standard English.
Description # 7:

1. High School: Has not completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.
5. Reliability: Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using standard English.

Description # 8:

1. High School: Has completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Appears highly motivated, wants the position a great deal and gives you the impression of being happy to perform the duties associated with the position.
5. Reliability: Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.
6. Appearance: Does not appear neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.
Description # 9:

1. High School: Has completed high school.
2. Specific job-related training: Has not graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.
5. Reliability: Is late once during the six week probationary period.
6. Appearance: Does not appear neat, clean, and well groomed at the job interview.
7. Speech: Speaks using standard English.

Description # 10:

1. High School: Has not completed high school.
2. Specific job-related training: Has not graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Appears poorly motivated, being willing to perform the required duties, but with some reservation, and with some reluctance to accept direction from a supervisor.
5. Reliability: Is late once during the six week probationary period.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.
Description # 11:

1. High School: Has completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has worked steadily over the last several years.
4. Motivation: Appears highly motivated, wants the position a great deal and gives you the impression of being happy to perform the duties associated with the position.
5. Reliability: Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.

Description # 12:

1. High School: Has not completed high school.
2. Specific job-related training: Has graduated from a job-specific training course.
3. Work experience: Has worked steadily over the last several years.
4. Motivation: Appears poorly motivated, being willing to perform the required duties, but with some reservation, and with some reluctance to accept direction from a supervisor.
5. Reliability: Is late once during the six week probationary period.
6. Appearance: Does not appear neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.
**Description #13:**

1. **High School:**
   - Has completed high school.

2. **Specific job-related training:**
   - Has not graduated from a job-specific training course.

3. **Work experience:**
   - Has worked steadily over the last several years.

4. **Motivation:**
   - Appears poorly motivated, being willing to perform the required duties, but with some reservation, and with some reluctance to accept direction from a supervisor.

5. **Reliability:**
   - Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.

6. **Appearance:**
   - Appears neat, clean, and well groomed at the job interview.

7. **Speech:**
   - Speaks using standard English.

**Description #14:**

1. **High School:**
   - Has not completed high school.

2. **Specific job-related training:**
   - Has graduated from a job-specific training course.

3. **Work experience:**
   - Has worked steadily over the last several years.

4. **Motivation:**
   - Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.

5. **Reliability:**
   - Is 20-30 minutes late three times during the six week probationary period, and had one unexplained absence during the six weeks.

6. **Appearance:**
   - Does not appear neat, clean, and well groomed at the job interview.

7. **Speech:**
   - Speaks using slang, and is unable to converse in standard English.
**Description # 15:**

1. High School: Has not completed high school.
2. Specific job-related training: Has not graduated from a job-specific training course.
3. Work experience: Has worked steadily over the last several years.
4. Motivation: Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.
5. Reliability: Is 20-30 minutes late three times during the six weeks probationary period, and had one unexplained absence during the six weeks.
6. Appearance: Does not appear neat, clean, and well groomed at the job interview.
7. Speech: Speaks using standard English.

**Description # 16:**

1. High School: Has not completed high school.
2. Specific job-related training: Has not graduated from a job-specific training course.
3. Work experience: Has been unemployed and out of school for the last year.
4. Motivation: Has an intermediate motivation, is willing to perform the required duties with neither great eagerness nor any reluctance, and to follow the direction of a supervisor fully and accurately but without cheerfulness.
5. Reliability: Is 20-30 minutes late three times during the six weeks probationary period, and had one unexplained absence during the six weeks.
6. Appearance: Appears neat, clean, and well groomed at the job interview.
7. Speech: Speaks using slang, and is unable to converse in standard English.
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