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A VALIDITY STUDY OF POLICE OFFICER SELECTION, TRAINING AND PROMOTION

VOLUME VII

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MARCH 1977

HOUSTON · DALLAS · AUSTIN

PREFACE

This report describes a comprehensive study of the City of Houston Police Department's selection, training, and promotional procedures. The report is divided into nine volumes as follows:

Volume I	Research Overview, Summary and Bibliography for the Validity Study of Selection, Training and Promotion within the Houston Police Department
Volume II	Analysis of the Labor Force Composition within the Recruiting Area of the Houston Police Department
Volume III	Adverse Impact Analyses of the Selection, Training, Assignment and Promotion Procedures of the Houston Police Department
Volume IV	Job Analysis of Positions within the Houston Police Department
Volume V	Evaluation of the Selection Requirements of the Houston Police Department
Volume VI	Validation of the Physical Requirements for the Selection of Police Officers
Volume VII	Validation of the Personal Background Requirements for the Selection of Police Officers
Volume VIII	Evaluation and Validation of the Houston Police Department Academy and Probationary Training Period
Volume IX	Validation of the Houston Police Department Promotional Process

While each volume is intended to stand alone as a unified component of the study, much of the data is referred to in several volumes, but presented in detail in only one volume. For example, the job analysis data reported in Volume IV

served as a foundation for the research described in Volumes V through IX. Consequently, at times the reader will need to refer to two or more volumes to obtain a comprehensive understanding of a specific component of the research.

It is expected that this report will be read by individuals who have a wide range of familiarity with the technical nature of the research study. Consequently, the authors have attempted to provide sufficient explanations of research methodology, statistical analyses, etc., to facilitate understanding by readers who do not have formal training or experience in the applied demographic and psychological research disciplines. At the same time, however, the authors have included appropriate technical information in the report, whereby professionals experienced in demographic and validation research can review the work of the research team.

Appendix A of Volume I is a comprehensive bibliography. The bibliography also contains detailed descriptions of reference materials cited or quoted (referred to by author and date) throughout all volumes of the report.

VOLUME VII

VALIDATION OF THE PERSONAL BACKGROUND REQUIREMENTS FOR THE SELECTION OF POLICE OFFICERS

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was to provide the Houston Police Department (HPD) with information to maximize the effectiveness of its entire selection process.

This volume is divided into ten chapters. Chapter 2 describes the unique research environment and discusses research options. Chapter 3 summarizes the final research design utilized in this study, while the next chapter details the specific methodology. Chapter 5 presents data pertinent to justifying the research criteria, and Chapter 6 discusses study limitations and considerations for interpreting research findings. Chapters 7, 8 and 9 discuss all validation findings and conclusions for the personal characteristic variables. Chapter 10 presents a special readability analysis of the Department's Academy and promotional materials.

A variety of statistical procedures have been utilized throughout the analyses presented in this volume, so a glossary has been prepared. The interested reader should refer to this glossary, located at the end of the text material, for a definition of terms and appropriate references. Additional research and support data are presented in the appendices to this volume.

CHAPTER 2

RESEARCH OPTIONS

During the initial phase of this project, the research staff reviewed all current Houston Police Department (HPD) selection practices for the purpose of developing a validation research strategy. This analysis began with a review of officer and job applicant data files, proceeded through observations of job applicant interviews and included discussions with HPD recruiter interviewers and background investigators. The observations and interviews were conducted independently by several psychologists on the research team with expertise in employment selection techniques. The concensus of this in-depth investigation was that current investigative procedures were very comprehensive and objective, that the Department was very selective, that the unit of study should be specific background data, and that standard validation designs would be inappropriate. Each of these conclusions will be discussed below in more detail.

Comprehensiveness of Existing Practices

HPD's applicant investigation procedures include nine distinct selection stages and cover a broad range of topics. Evaluation of the entire process revealed that most topics were covered in-depth at more than one stage. Therefore, by the end of each investigation, the applicant's file was quite detailed and appeared thorough and complete.

Observations of actual interviews revealed that HPD interviewers sought similar data, and that decision rules for evaluating applicant backgrounds were consistent across interviewers. Whenever the selection decision was unclear (i.e., not an obvious, automatic reject), the interviewers/investigators were required to check with a designated supervisor. The Recruiting Division maintained frequent communications with interviewers to update these officers on Department selection procedures and to review decision rules.

Probabilities of Overt Interviewer Bias

In regard to the possibilities of personal bias during the screening process, HPD interviewers and investigators appeared to be objective, and there were no hints of overt prejudice during observational periods or discussions held afterward. Furthermore, two of the five initial interviewers at that time (February 1976) were female, one a Black female. The lieutenant in charge of recruiting was of Hispanic descent and was responsible for reviewing reject decisions and participating in the final interview sessions. Of the approximately 15 HPD background investigators, there were three white females, one Black male and one Hispanic male.

Selectivity

To minimize the risk of saddling the public with unqualified or possibly unethical officers, the Houston Police Department

maintains high selection standards. Such a policy was obviously being implemented, for file records revealed that the Department's selection ratio was 20 to 1. That is, about 95 percent of all applicants seeking employment as a Class A police officer either withdrew or were rejected for one or more reasons. Only five percent of all applicants successfully completed the entire process and were accepted into the Academy (see Volume III for full analysis).

The fact that such a small proportion of applicants are accepted results in a severe restriction of range with respect to the personal characteristics of officers. As confirmed by an inspection of the Department's personnel records, very few officers had questionable background data in their files. Applicants with felony arrests and convictions had been excluded, as had those with bad employment records, poor references, bad driving records, poor credit histories, severe marital instability, and so on. This large restriction of range can hamper many research efforts and must be taken into consideration when choosing a validation research strategy.

Unit of Study

Three different types of data were identified as possible units for this research: 1) the decision reached at the end of each selection stage (i.e., after the preliminary interview, background investigation, etc.); 2) the data relating to major selection topics or reasons for rejection (e.g., bad driving

history), or 3) the specific facts about an applicant's background (e.g., number of traffic accidents, speeding tickets, etc.).

The first possible data unit, the selection stage in which the decision is made, was quickly discarded. Analysis of selection decisions revealed that information evaluated at different selection stages are not necessarily independent. For example, applicants who used hallucinogens (LSD, etc.) one or more times in the 12 months prior to the time of application were automatically rejected because they had recently committed a felony offense and because of the possibilities of "flashbacks" or reoccurring hallucinatory experiences. Although such a rejection should have occurred during the initial interview when the applicant was first questioned about his/her drug habits, some applicants failed to tell the truth. Facts about the applicant's drug use might not have been uncovered until the background investigation was conducted, until he/she admitted use of hallucinogens before/during/after the polygraph examination, or until the final selection interview session. Regardless of when the disqualifying information was ascertained, the same data was cited as the reason for rejection. Therefore, this analysis had to focus on the Department's evaluation of the applicant's background data as a whole, not on the stage at which reject decisions are made.

The question of whether to use specific background items related

to the personal characteristics of applicants or broader background topic evaluations is a more difficult question, and one that interacts with the type of validation design. Use of broad topic evaluations, such as an evaluation of the applicant's driving or criminal records, is well suited for a criterion validity study. Using such methodology, it is assumed that a background investigator or interviewer considers all relevant applicant data simultaneously when making an applicant evaluation. This approach has a major advantage in that it allows consideration of all circumstances when reaching subject decisions, and the corresponding disadvantage that it does not study the relative merits of components which make up a selection decision.

If a criterion related validity study is not possible, and if broad topic ratings are not appropriate, the specific individual background items, or biographic facts, must be the data unit for study. A study of specific biographical items has the disadvantage that every occurrence of an event is coded alike. Thus, a male applicant behind in payments on his debts because his spouse required a series of unexpected medical operations after an automobile accident will be coded the same as another applicant who is behind on debts but who also has a history of bad credit, bounced checks, repossessions and similar indication of failing to meet appropriate financial obligations. Although there are often advantages to item objectivity and specificity, in conducting research into background histories it is a

limitation. There is another disadvantage to the single unit data approach, namely, it is impossible to research every item that will be considered during the selection process. Far too few applicants will have felony convictions of any type, or bankruptcies, dishonorable discharges, general court martials, etc., to allow an analysis of very many specific items.

On the other hand, if a number of important financial management items are shown to be significant, then it would be logical to regard the entire topic of financial management or credit history as one which should be considered when evaluating applicants. Another important consideration is that the study of specific items is highly appropriate for construct and content validity research techniques.

Before the issue can be resolved, it is necessary to discuss the research design strategy, remembering that topic evaluations are appropriate for criterion validity but that specific biographical items would be appropriate for construct and content validation.

Predictive Validity (Criterion-Related) Designs

The typical predictive validity design would compare police officer's current job performance with his/her background data at time of application. This type of validation research design is impractical because of the restriction of range problem as described earlier. Any applicant with questionable background data was, or should have been, rejected. Those accepted

primarily had either acceptable backgrounds or the investigation failed to uncover the negative data, resulting in a "clean" investigation in either case. In unique instances where negativ data were obtained but the individual was accepted anyway, there were usually abundant data to justify overriding the personal background blemishes.

Because of the Department's posture of minimal public risk, applicants selected with less than "perfect" personal backgrounds probably received an even more thorough investigation than applicants without such background questions. Thus, officers with negative data in their investigation files probably were treated uniquely and might not be typical of applicants who were rejected for similar negative background data. In any case, it is clear that there is a great restriction in range of current officer data, and that a predictive validity design would be inappropriate.

A second predictive validity model was considered, requiring the implementation (today) of more detailed data collection techniques with job performance to be evaluated at some time in the future. This method was rejected for two reasons. First and primary, the restriction in range problem would remain with similar research limitations. Second, the time required to recruit, screen, train, complete probation, assign to a field job and then obtain appropriate job performance data for sufficient samples of females and minorities would take many

years. This process was an unacceptable time delay from the Department's perspective.

A third type of predictive design was considered which would have required the Department to be less selective and to admit a broader range of applicants, including some with various types of credit difficulties, arrest conviction records, military maladjustment, and so on. To minimize public risk, these experimental applicants could be evaluated against training criteria and eliminated if questionable. This approach had to be rejected because of the excessive training costs and efforts required, inadequacies of training criteria and sample sizes. To obtain sufficient samples of females and minorities would require several years. Training criteria to evaluate honesty, emotional stability, prejudice and the like would be very difficult to develop and obtain in an objective manner. Even if such criteria were developed, cadets might be "on their best behavior", and tendencies toward emotional instability, prejudice, etc., might not surface until the officers engaged in unprofessional conduct in the field. And lastly, it is still unclear to what extent the courts will accept Academy training data as appropriate and sufficient criteria in validation research.

Concurrent Validation (Criterion-Related) Designs

Several concurrent validation models also were contemplated, but rejected by the researchers. The most practical concurrent

design would involve a current background investigation of selected officers to determine present marital stability, financial condition, drug use, etc. This potential approach is fraught with many problems, including the initial restriction of range, lack of manpower and funds to conduct several hundred investigations, and the deep officer resentment that could result from such a study. (Since this type of design would require the Department to investigate the personal background characteristics of a sizeable segment of its current force, it would undoubtedly result in significant morale problems.) Therefore, criterion-related validity approaches, both predictive and concurrent, were discarded as inappropriate or infeasible.

Content Validity Design

Content validity methodologies also were considered to be inadequate for the purposes of this phase of the research. As noted by Lawshe (1976), when a high level of abstraction is involved in the variables under study (i.e., deductive reasoning emotional stability, etc.) significant inferences are necessary, and construct (not content) validity is the required approach. Additionally, many psychologists consider content validity to be a special case of construct validity.

Construct Validity Design

On careful reflection, construct validity is a very logical

approach for investigating the relevance of biographical type information used in a selection process. Psychologists, personnel administrators for all types of organizations, law enforcement agencies in general and the Houston Police Department in particular evaluate consistent trends in a person's background as indicative of possible underlying personality traits. For example, assume the investigation of a police officer candidate revealed an inability of the person to adjust to military life, disciplinary problems in school, frequent job hopping, many career changes, several divorces, a series of separations, employers who cited problems with coworkers and irresponsibility as reasons for terminating the candidate, neighbors who referred to wild parties and drug use, friends who criticized the person's wreckless driving habits, a D.W.I. conviction, and so on. Obviously this candidate should be rejected by HPD.

But why should this candidate be rejected? The evaluator might intuitively conclude that there is sufficient data to support one or more of the following hypotheses: the applicant is too emotionally unstable to be entrusted with the powers of law enforcement, or the applicant is too immature, unsettled, hostile, antisocial, impulsive or carefree. Furthermore, one would recall many reasons why officers must be emotionally mature, able to abide by society's rules and regulations, able to adjust to paramilitary life, and so on.

The thought process described above is actually the approach which can be tested by the construct validity model. This approach would begin with a job analysis and a subsequent listing of personality traits necessary for successful job performance. These relevant traits or underlying personality constructs (such as emotional stability) could then be correlated against personal background items such as military re-enlistment codes, marital status, credit history, criminal record, and so on.

Construct validity is one of the methods specifically approved by the EEOCC guidelines (see Chapter I) and cited as relevant by the Supreme Court in Washington et. al. vs. Davis et. al. (S. Ct. No. 74-1497, June 7, 1976, 44 U.S.L.W. 4789). In that ruling the Supreme Court felt obliged to footnote the following comments:

> [13]It appears beyond doubt by now that there is no single method for appropriately validating employment tests for their relationship to job performance. Professional standards developed by the American Psychological Association in its Standards for Educational and Psychological Tests and Manuals (1966), accept three basic methods of validation: " empirical" or "criterion" validity (demonstrated by identifying criteria that indicate successful job performance and then correlating test scores and the criteria so identified), "construct" validity (demonstrated by examinations structured to measure the degree to which job applicants have identifiable characteristics that have been determined to be important in successful job performance), and "content" validity (demonstrated by tests whose content closely approximates tasks to be performed on the job by the

> applicant). These standards have been relied upon by the Equal Employment Opportunity Commission in fashioning its Guidelines on Employment Selection procedures, 29 CFT pt. 1607, and have been judicially noted in cases where validation of employment tests has been in issue.

Therefore, construct validity would be a direct test of the Houston Police Department's selection philosophy and procedures, and considering the methodological problems encountered by the other validation techniques, it was considered the best approach for this project. Furthermore, construct validity has the potentially excellent advantage of using job applicants rather than current officers, thus somewhat reducing the extensive restriction of range problems. Therefore, construct validity is highly appropriate as a validation strategy for law enforcement agencies in general and other occupations with high selection ratios or potentially dangerous consequences for faulty selection.

Why, then, has construct validity not been used extensively in this type of research? A major disadvantage to construct validity is its complexity and the need for extensive research to support the constructs. As stated in the American Psychological Association Principles for the Validation and Use of Personnel Selection Procedures (1975):

> The notion of construct validity, with its many optional procedures, may be extended to the point where it may be used to justify selection procedures. That

justification requires that the construct be well defined, that the selection procedure considered is a measure of that construct, and that an appropriate criterion of job behavior involves that construct to more than a tangential degree.

In view of the lack of substantial literature extending the concept of construct validity to employment practice, no principles for its use are presented here. Psychologists should, however, be aware that obtaining support for the relevance of a construct to a particular job, and of the validity with which a particular selection procedure measures that construct, is both an extensive and arduous undertaking, involving more than a single criterion-related validity study. It is, however, an undertaking that may pay great dividends in improving the scientific foundations for employment decisions.

CHAPTER 3

SUMMARY OF THE VALIDATION RESEARCH DESIGN

Because of problem complexity, the full validation research model employs several different techniques. Although the primary model is one of construct validity, the principles of criterion-related validity are also applied, with the final design being a combination of construct and criterion validity. The complete design consists of seven separate phases which are summarized in this chapter. Specific methodology is discussed in the next chapter.

Phase 1: Identify Psychological Characteristics Required of Police Officers

Using a number of standard job analysis techniques, the functions and requisite psychological characteristics required of HPD officers were identified and defined. These requisite psychological attributes (i.e., emotional adjustment, personal character, sense of responsibility, interpersonal effectiveness, etc.) are the underlying variables that should be predictable from applicant background data. These job relevant attributes are fully discussed in Volume IV and are summarized in the next section of this volume.

Phase 2: Develop Measuring Instruments for the Job Relevant Personality Attributes

Normally the complex and prohibitive part of the construct

validity design is the construction of measuring instruments and the need to conduct secondary research to demonstrate that the measuring instrument is in fact measuring the desired construct. Fortunately, it is possible to bypass the constructi of measuring devices, when appropriate, independently validated and well researched measures already exist. There are many professionally developed, objective, standardized psychological tests (such as the MMPI, CPI, GZTS, 16PF, EDWARDS, and so on) that have a large body of research data to support the construct the test scales purport to measure.

Thus, one could choose test scales from the abundant test literature that measure those constructs necessary for police officer functioning, and which already have research support and professional agreement as to what construct is being measured by the scales.

Phase 3: Develop Background Data Collection Forms

A Preliminary Interview Checklist was developed based on interviews with recruiters and personal observations of the applicant interview process by the researchers. The checklist was highly structured and stressed the obtaining of objective, factual biographical information for use as predictors. A side benefit of the checklist was the additional comprehensivenes relevancy and structure it provided during the interviewing process.

Phase 4: Sample Selection and Data Collection

As suggested earlier, the construct validity model is highly appropriate for use with job applicants, so HPD police officer applicants were selected as subjects for this investigation. Several major benefits of using applicants are the lessened effect relative to restriction of range problems, the possibilities of studying large numbers of minorities, and the relatively short research timespan required.

Applicants, therefore, were administered the selected psychological test scales as part of the screening process, and detailed applicant background data was collected during the preliminary interview.

Phase 5: Controlling for Cultural Test Differences

To minimize the potential impact of different cultures, habit patterns and differential predictability, the psychological construct scales were standardized by race and sex. If, say, one racial group tended to have higher scores on the selected psychological test constructs than another group, the standardization technique made the average Black, Hispanic and White male alike on the underlying constructs such as emotional adjustment, sense of responsibility, etc. Without standardization, if one group had more criminal convictions and lower emotional stability scores than another, then a significant validity coefficient might only represent racial differences in test taking abilities.

This standardization procedure eliminated most of these potential problems.

Phase 6: Determine Relationships between Relevant Psychological Constructs and Data from Applicant Investigations

After test results were standardized and questionnaire data coded, each checklist item was correlated with the selected psychological constructs. Items achieving statistically significant validity coefficients, and topics with rational clusters of significant items, were considered to have construct validity, or criterion-related validity with construct variables. Background items and topics not attaining significant construct validities will require other types of support to justify continued use in the selection process.

Phase 7: Validation of Personality Construct Measures

Because of the methodologies employed in this construct validation model, one can argue that there is no need to demonstrate a relationship between the "psychological job-related constructs" and actual job performance. If the job analyses were performed properly, if the resulting job behavioral constructs are logical and if there is solid research literature support for the selected behavioral construct scales, then the research alone is sufficient to justify the scale's construct validity. Furthermore, the linking of test constructs with police officer job performance would require a criterion-related validity

approach. The limitations of criterion validity as discussed previously include the severe restriction in range problem, among others.

Even though the research literature and proper scale selection should be sufficient to justify the job behavior constructs, it was decided to "tie" the constructs to actual job performance and remove any doubt about this relationship. The reason for this decision is that this design is unique and untested in the courts, even though it is professionally sound.

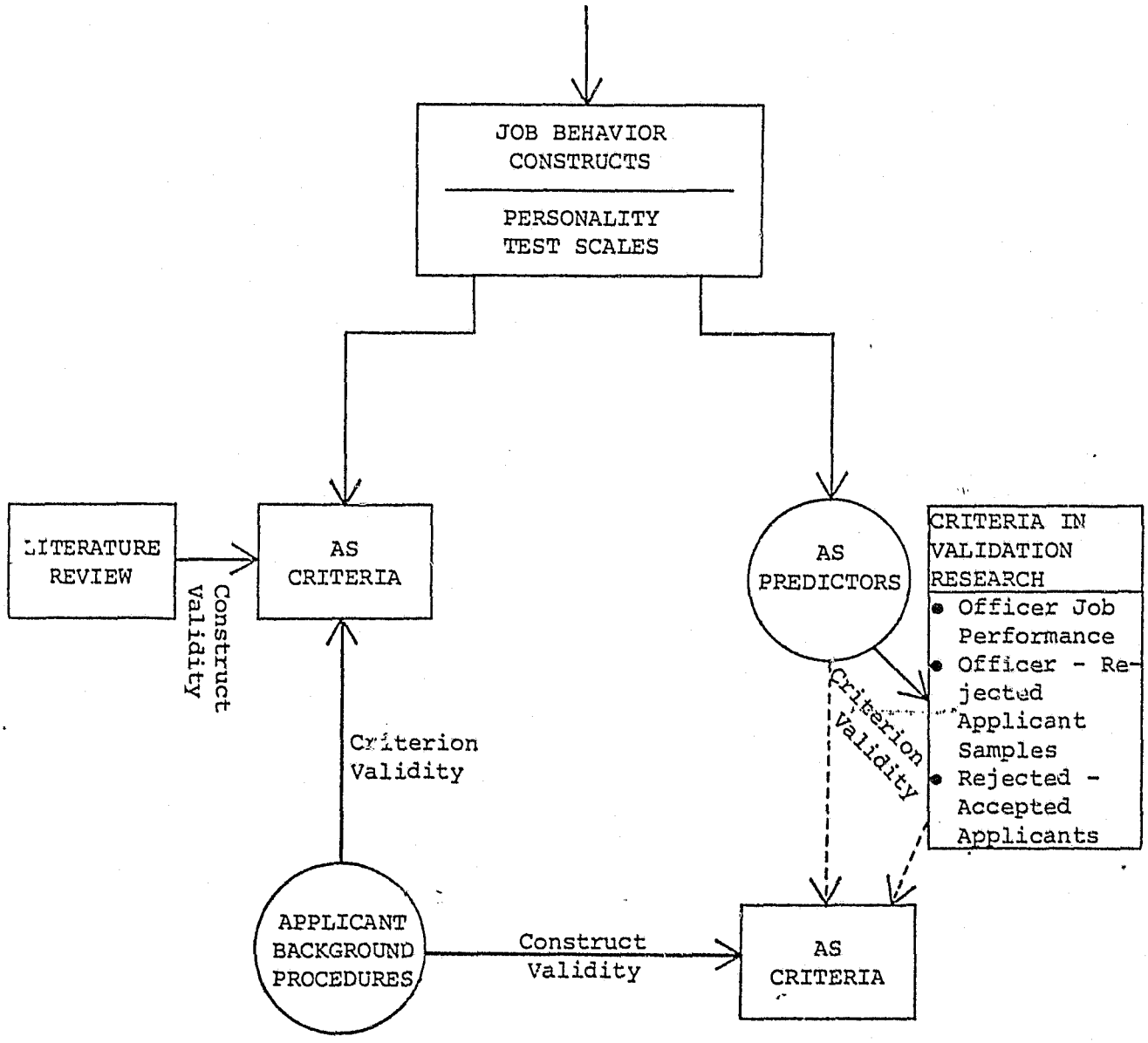
Therefore, several types of additional validity designs were employed. The first study involved criterion-related validation by using the test scale constructs as predictors of police officer job performance. If the job behavior construct scales were found to relate significantly to job performance indices, then the constructs would have additional empirical support and a direct link to job performance.

Another direct association between job performance and construct validity was obtained by comparing rejected applicant construct scores with those for successful police officers. If successful police officers score higher on important job constructs than rejected applicants, as hypothesized, then the scales would have a third type of construct validity.

If the well researched test construct scales are directly linked to job behaviors (criterion-related validity) and if applicant

data are directly linked to job behavior constructs (criterion-related validity), then the applicant predictors will have a definite link to officer job behaviors (construct validity). See Diagram 1 for an overview of this research model.

DIAGRAM 1


JOB BEHAVIOR CONSTRUCTS
PERSONALITY TEST SCALES
LITERATURE REVIEW
Construct Validity
AS CRITERIA
AS PREDICTORS
CRITERIA IN VALIDATION RESEARCH
• Officer Job Performance
• Officer - Rejected Applicant Samples
• Rejected - Accepted Applicants
Criterion Validity
Criterion Validity
APPLICANT BACKGROUND PROCEDURES
Construct Validity
AS CRITERIA

CHAPTER 4

DETAILED METHODOLOGY FOR THE CONSTRUCT VALIDATION STUDY

Overview of the Construct Validation Method

The construct validity model was primarily selected for three reasons - the inadequacy of other validation designs, the appropriateness of predicting underlying job behavioral dimensions, and the opportunity to minimize restriction of range problems by studying job applicants. The original construct design was developed to investigate the relationship between underlying police officer job constructs and the applicant background data obtained after a complete background investigation. It was anticipated that between 400 and 600 applicants selected according to research specifications would receive full background investigations. By design necessity, these selected applicants would have a variety of backgrounds to assure the broadest range of data for study. Thus, all applicants who actually had felony arrests and/or convictions, dishonorable military discharges, questionable driving records, etc., would be included in the research sample.

For many reasons, this ambitious design had to be dropped. The Houston Police Department was in the midst of a large minority recruitment drive and could not afford to conduct experimental background investigations on such a grand scale. This decision would have required that each of these experimental

investigations be carried to completion (i.e., to consider *all* background data), and could not cease once sufficient data of a disqualifying nature was obtained. At best, the Department might have been able to conduct 100 such investigations in addition to normal work loads per Academy class. This effort would have more than one year of data collection to meet sample size requirements. Furthermore, there were insufficient numbers of trained investigators to collect the data, and the required overtime and travel expenses would have created a significant financial burden on the Department. As the final consideration, the Department might have been placed in legal jeopardy by investigating further the personal backgrounds of applicants disqualified during an earlier part of the selection process.

Instead, an alternative design was needed. The obvious possibility of using background investigation data for those applicants selected by the Department (i.e., those who passed the preliminary interview phase) was rejected because of the anticipated restriction in range problems. Rather, some methodology was required which utilized the full range of applicants. Such a design subsequently was developed by structuring the preliminary interview in order to ask applicants detailed questions to simulate the type of information that might be obtained during background record checks, personal interviews with applicant employers, reference checks, polygraph examinations and final interviews. Although the selected

design is limited to self report data (i.e., the answers of applicants), its advantages were thought to outweigh its disadvantages.

The Preliminary Interview Checklist (Predictor)

The "simulated background investigation" procedure was developed by observing applicant interviews and by discussions with preliminary interviewers, background investigators, final interviewers, and supervisory personnel within the Recruiting Division of the Houston Police Department. Based on the insights gained into the total selection process, a background investigation interview form was developed, covering experimental topics and questions asked during all phases of applicant screening. The form was then reviewed by HPD interviewers, investigators and supervisory personnel to assure comprehensiveness and clarity.

The final form, to be called the Preliminary Interview Checklist (P.I.C.) was quite detailed, consisting of 11 pages, 19 different topics and well over 150 questions (see copy in Appendix A). The purpose of the P.I.C. was threefold: 1) to structure the data collection process by standardizing research questions and follow-up probes; 2) to capture applicant responses in a form amenable to coding and statistical analysis; and 3) to aid the interviewer by including all applicant data topics (even those questions not relevant for this research)

with suggestions for follow up probing.

Prior to the implementation of the P.I.C., the preliminary interview lasted 20 to 45 minutes and stressed content which caused automatic disqualification. Applicants not rejected for drug use, criminal convictions, etc., were passed to the more comprehensive background investigation. Implementation of the P.I.C. increased the time spent during the preliminary interview from one-half hour to over one and one-half hours.

Some of the topics which were added to "simulate" the background investigation, polygraph and final interview phases of the selection process included self-ratings of employment references, personal references, driving habits, educational adjustment, etc. It was felt that if self-ratings of one's anticipated reference evaluations would validate, then "real" references would do so even more strongly, justifying the simulated topic as meaningful to the selection process.

Major P.I.C. topics and examples of relevant P.I.C. items are shown in Table 1. Each P.I.C. item was phrased in the negative direction, with high codes indicating the negative aspects of each item. Therefore, inverse relationships between P.I.C. items and test constructs were anticipated. To minimize confusion, all validity coefficients presented in the text are shown as positive when they attained statistical significance in the anticipated direction.

TABLE 1

LISTING OF P.I.C. TOPICS AND TYPES OF RELEVANT ITEMS

I. Background Data (age, sex, race, number residences)

II. Traffic Record (tickets, accidents, suspensions, driving habits)

III. Civil Suits (sued others, been sued, grievances filed)

IV. Military History (reinlistment and discharge codes, court martials, Article 15's, general adaptations)

V. Education (high school and college grades, disciplinary problems and adjustment)

VI. Employment History (law enforcement experiences, employment references, times fired, job tenure)

VII. Financial Condition (credit bureau rating, accounts behind on, repossessions, bounced checks)

VIII. Drinking Habits (D.W.I.'s, drinking habits and problems)

IX. Criminal Record (arrests/convictions, misdemeanors/felonies, adult/juvenile)

X. Immediate Family Criminal Record (felony convictions)

XI. Radical Group Affiliations and Sympathies

XII. Physical Health

XIII. Mental Health (mental disorders, temper control)

XIV. Drug Use (marijuana, hallucinogens, frequency, recency)

XV. Family Status (marital status, times divorced, beat spouse, argue, adultery)

XVI. Sexual Behaviors (homosexuality, prostitution, abnormalities, adultery)

XVII. Theft and Dishonesty (number and value of thefts, recency, purchase stolen goods)

XVIII. Personal References (prejudices)

XIX. Reservations about Law Enforcement (hours, following orders, Academy)

As an additional feature, the P.I.C. included a section requiring interviewers to evaluate applicants on the various topics covered during the preliminary interview (e.g., educational adjustment, employment references, mental health, honesty). Interviewers strongly resisted making these evaluations, pleading limited applicant data, limited time for probing, inability to verify responses, etc. Besides, interviewers had been carefully trained to make decisions only about automatic reject factors, not to act as background investigators. Because of these attitudes and because of a communications and training failure, interviewers differentially interpreted rating scale meanings, with some raters evaluating "no negative data" as a positive trait, while others evaluated it as a neutral or even negative trait. For these reasons (i.e., low reliability), the rating data was eliminated from further study.

A thorough indoctrination in the use of the data collection part of the P.I.C. was accomplished by several group training sessions conducted by the researchers with all preliminary interviewers, and by a week of practice using the form before the research data collection effort began. In addition, one officer was selected as the coordinator to review completed interview forms and to be responsible for training new interviewers in the use of the P.I.C. Research team personnel also were trained in the use of the P.I.C., and continuously monitored the data collection process.

The Job Behavioral Constructs (Criteria)

Four factors influenced the decision of which psychological test scales should be selected to represent the police officer job behavioral constructs: 1) the critical police officer job dimensions identified by the job analysis; 2) the specific Preliminary Interview Checklist predictor items, 3) environmental and research constraints, and 4) test research literature.

A. JOB ANALYSIS DIMENSIONS

The critical incident analysis identified 13 critical job behavioral dimensions. A detailed summary of these dimensions is included in Appendix B, and the dimensions are discussed fully in Volume IV along with other supporting job analysis results. These 13 dimensions were labeled as follows:

1. Personal Character and Responsibility (sense of right and wrong, moral values, honesty, adherence to laws, objectivity and fairness, etc.)
2. Emotional Stability/Control and Psychological Adjustment (ability to handle pressure, freedom from socially deviant behaviors, ability to control emotions, self restraint, etc.)
3. Judgment and Decision Making (rationality, logic, flexibility, objectivity, etc.)
4. Investigative Thoroughness (persistence and follow throu

1) asocial behaviors, disciplinary problems, rebelliousness, dishonesty, theft, criminal and illegal behaviors; 2) emotional stability, maturity, ability to handle stress; and 3) dependability and sense of responsibility. In addition, the P.I.C. provides for the collection of some data pertaining to interpersonal relationships, prejudices and objectivity. Noting the strong similarities between the relevant job behavioral dimensions and screening topics, and stressing parsimony, only the following five constructs were selected to present police officer job behaviors of a personality nature.

1. Asocial behaviors, ethical values, basic character
2. Sense of responsibility, dependability, conscientiousness
3. Emotional adjustment, self control, maturity
4. Objectivity, practicalness
5. Interpersonal effectiveness

C. ENVIRONMENTAL AND RESEARCH CONSTRAINTS

The primary environmental restraint in selecting the psychological test construct scales was the time limitation associated with applicants completing the tests. In addition to any testing time, each applicant had to pass through the City of Houston Civil Service, be measured and weighed, complete a 45 to 90 minute personal interview (the P.I.C.), take the physical agility tests and complete a detailed personal history application form. In the midst

5. Investigative Vigilance (alertness, detection of the unusual, memory, etc.)
6. Job Knowledge (ability to learn, understand, retain, and apply)
7. Conscientiousness to Duty (seriousness about responsibilities, adherence to policies, performance of duties)
8. Interpersonal Effectiveness (communications, ability to persuade and influence others, etc.)
9. Interest in Helping Others/Public Relations
10. Relationships with Peers (cooperativeness, etc.)
11. Leadership/Self-Reliance (ability to direct others, self confidence, initiative, decisiveness, etc.)
12. Psychomotor Skills (marksmanship and pursuit driving abilities)
13. Physical Ability (running, jumping, self defense, etc.)

Personality characteristics which appear to underlie these job behavioral dimensions include: 1) sense of responsibili conscientiousness; 2) emotional and psychological adjustment 3) objectivity - practicalness; 4) personal character - ethical values; and 5) interpersonal skills, interests and abilities.

B. PRELIMINARY INTERVIEW CHECKLIST ITEMS

Basically used for negative screening, the applicant selection procedure emphasizes three major types of data:

of a strong minority recruitment program, the Department could not afford to lose qualified applicants because of excessive screening time. Therefore, it was agreed to limit total construct testing time to between 1-1/2 to 2-1/2 hours.

Another obvious constraint in selecting the construct test scales involved administrative considerations. Tests had to have an objective format and had to be basically self-administered by reading simple instructions. Because of the sample size involved, computer scoring was desired but not essential.

D. RESEARCH REVIEW AND TEST SCALE SELECTION

After a review of the personality test literature, scales from four objective, professionally developed, standardized and self-administered tests were chosen. Scales and tests were selected because of supporting validation studies and other research literature. The four tests and research scales are listed below:

1. The California Personality Inventory (CPI)

   The entire 18-scale test was selected, consisting of the So scale (socialization/delinquency), Re scale (responsibility/irresponsibility, scales composing a general adjustment factor (Self Control, Good Impression, Sense of Well Being, Tolerance, Achievement Via

Conformity), scales composing the interpersonal effectiv ness factor (Dominance, Capacity for Status, Sociability Social Presence and Self Acceptance), and several additional scales.

2. The Minnesota Multiphasic Personality Test (MMPI)

A special short form of the MMPI, known as the LARK, was used. This form consisted of the "General Maladjustment Scale" (Welsh's A scale representing an adjustment/maladjustment dimension underlying the entire MMPI, Welsh, 1956), the typical Lie (L) and K scales, and another specially derived factor scale titled Repression.

3. The Guilford Zimmerman Temperament Survey (GZTS)

Six scales shown to be highly related to emotional stability and/or interpersonal effectiveness are selected. These scales are Emotional Stability (E), Objectivity (O), Friendliness (F), Personal Relations (P), Restraint (R), and Ascendency (A). The six scales were combined with those selected from the next test, and with permission from Dr. L. Guilford, administered as one test.

4. The D. F. Opinion Survey (DFOS)

Four scales were selected from this test: Self

Reliance (SR), Realistic Thinking (RT), Cultural Conformity (CC), and Need for Freedom (NF).

Thus, the asocial behavioral construct was measured by the CPI Socialization/Delinquency scale and responsibility by the CPI Responsibility scale. Emotional adjustment was covered by many scales including the MMPI A scale, scales composing CPI factor 1, scales composing the GZTS emotional stability factor and three DFOS scales (SR, RT and NF). Interpersonal effectiveness was also measured by a number of scales (scales comprising factor 2 of the CPI and Ascendency of the GZTS), while the objectivity construct was covered by GZTS - Objectivity, DFOS - Realistic Thinking and several others.

Excluding the CPI So and Re scales, the remaining scales were factor analyzed, with an expectation of deriving one or more factors or clusters of scales related to objectivity, emotional adjustment and interpersonal effectiveness. Results for the factor analysis yielded one general factor which accounted for most of the test scale variances. (See App. 3) Primary loadings for this factor included both the emotional stability scales and the objectivity scales. Since objectivity and realistic thinking are components of emotional adjustment, the findings were logical and the two constructs were combined into one: emotional adjustment (see Chapter 5 for details).

Therefore, only three test constructs were appropriate for representing the underlying job behavior constructs: the emotional adjustment construct (by a single factor), the socialization construct (by the CPI So scale), and the responsibility construct (by the CPI Re scale). The next chapter explains the definition of each of these constructs and presents the research literature and criterion-related validity data to justify these scales for use in this investigation.

Applicant Sample

The initial sample was designed to include all applicants for Cadet Class 75, who applied between April 1 and June 15, 1976. Each applicant was to be administered the psychological test battery and then be given a very structured interview using the P.I.C. Because of extenuating circumstances, however, several design modifications had to be made.

First, to minimize intrusion on applicants, those persons who normally would not receive the preliminary interview were not asked to participate in the approximately 2-1/2 to 4 hours of experimental data collection. Thus, applicants who automatically were rejected because of citizenship, age, education, visual acuity, or for height and weight requirements were excluded from the study.

Second, the time span had to be lengthened. Just before the

previous Academy class began in early June, the City of Houston Comptroller cancelled the scheduled class due to lack of approved funds. Academy training was subsequently postponed for three months; recruiting efforts were delayed; potential applicants did not apply; and the research sample suffered from a low number of minority subjects.

The desired sample size consisted of approximately 200 White male, 100 Black male, 100 Hispanic male, and 100 female applicants. Due to the unanticipated recruitment slow down, data collection efforts were extended an additional six weeks. To further increase the number of female participants, females not satisfying the height and weight requirements were invited to participate voluntarily in this research.

In spite of these added efforts, the extensive publicity surrounding the Academy class postponement and the decrease in recruiting efforts by the Department resulted in fewer minority subjects than expected. Because of research timing considerations and the small number of applicants, all data collection efforts had to cease on July 30, 1976. At that time, 539 suitable subjects had applied. Of this total, some number failed to complete the data collection procedures by not taking the personality tests, by answering the tests in a random manner, and/or by not completing the preliminary interview. Table 2 shows the initial and final applicant samples by sex and race.

TABLE 2

APPLICANT SAMPLE SIZE BY RACE AND SEX

	SUITABLE APPLICANTS	WITHDREW BEFORE PRELIMINARY INTERVIEW	INCOMPLETE DATA (not tested, incomplete tests, excluded for falsifying data)	FINAL SAMPLE
WHITE MALES	284	11	57	216
WHITE FEMALES	25	2	3	20
BLACK MALES	120	3	28	89
BLACK FEMALES	21	4	0	17
HISPANIC MALES	87	4	22	61
HISPANIC FEMALES	1	0	0	1
ORIENTAL MALE	1	0	0	1
	539	24	110	405

Summary of Data Analysis Procedures

The relationships between the P.I.C. background items and underlying job behavioral constructs were analyzed by Pearson product-moment correlation coefficients. The resulting validity coefficients are reported in Chapter 7 for each P.I.C. item. As a gross estimate of topic importance, a multiple regression analysis was performed by regressing items composing each topic (e.g., education, military history) against the three construct variables. Only significant results are presented in this report, significance being determined by a one-tailed significance test.

There are many advantages and disadvantages to the analytical procedures chosen, which greatly affect interpretation of the validity findings. Therefore, additional methodology, research limitations and implications for interpreting the results are discussed in some detail in Chapter 6.

CHAPTER 5

EVALUATION OF SELECTED JOB BEHAVIOR TEST CONSTRUCTS

In recent years, law enforcement agencies have become interested in validating their selection techniques and have been at the forefront of many types of research efforts. Thus, other investigators have conducted various types of job analyses and validation studies for police officer positions which are relevant to this research study. A brief review of this independent research follows, beginning with a summary of the critical job behavioral dimensions obtained by other investigators and proceeding to those construct and criterion validity results that would help to evaluate the constructs chosen for this research effort.

As discussed in the previous chapter on detailed methodology, three job-related constructs were chosen to represent critical police officer characteristics: 1) socialization/asocial behaviors; 2) responsibility/irresponsibility; and 3) emotional adjustment/maladjustment. The primary intent of this chapter is to clarify the meaning of the personality test scales chosen to measure these three job behavior constructs and to justify each for use as a criterion with police officer applicants. Six different approaches to evaluating the constructs have been developed and each is briefly described below and then discussed in the remainder of this chapter.

A. An evaluation of the appropriateness of the three underlying constructs. Before proceeding to evaluate the test scales selected to measure the constructs, it is important that the chosen constructs themselves be shown essential to police officer effectiveness.

B. A review of research literature (exclusive of law enforcement research) for each test construct scale. This review includes both construct and criterion-related validation studies and is intended to clarity the personality dimension measured by each selected test construct scale.

C. A review of relevant police-related research, including a comparison of published police officer and other occupational norms. If socialization, responsibility and emotional adjustment are valid constructs for law enforcement positions, then police officers should perform higher on the test construct scales than persons in most other occupations.

D. A comparison between accepted and rejected applicants on the three test constructs. The hypothesis for this comparison is that applicants who successfully pass the screening process are significantly higher on each of the job behavior constructs than applicants who were rejected during the selection process.

E. An analysis of how current HPD officers compare to rejected HPD applicants on the three job constructs. The hypothesis

for this comparison is that current officers should be more socialized, more responsible and better emotionally adjusted than rejected applicants.

F. A criterion-related study using current HPD police officer test results and job performance ratings. If the test constructs are capable of measuring important underlying job behaviors, then they should be able to predict actual job performance of current HPD officers.

A. ESSENTIAL POLICE OFFICER JOB PERFORMANCE CONSTRUCTS

Using a variety of job analysis techniques, a number of other researchers have identified behavioral dimensions that are important to police officer job performance. Behavioral job performance dimensions which have resulted from these projects are quite similar across research projects and compare favorably to those identified at the Houston Police Department (see Volume IV for direct comparison). Based on the definitions of the behavioral dimensions reported by other independent investigators, their dimensions have been "matched" against the selected HPD job related constructs of socialization, responsibility and emotional adjustment.

As the results in Table 3 illustrate, the three underlying constructs selected for this research are quite pervasive. Each of the other investigations identified one or more

TABLE 3

COMPARISON OF SELECTED POLICE OFFICER BEHAVIORAL JOB DIMENSIONS

CATEROGIZED BY HPD TEST CONSTRUCTS

Police Officer Research	Socialization	Responsibility	Emotional Adjustment
City of Houston (LWFW, 1977)	Personal Character and Responsibility	Personal Character and Responsibility Conscientiousness to Duty Investigative Thoroughness	Emotional Stability and Control and Psychological Adjustment
City of Akron (Barrett et. al., 1975)	Integrity Demeanor	Commitment Initiative Work Attitude Report Writing	Use Force Appropriately Dependability
City of Atlanta (Atlanta Regional Commission, 1974)	Professionalism	Responsibility for Assigned Duties Follow Set Procedures Care and Use of Equipment Attention to Detail	Willingness to Work in Hazardous Environment Maintaining Self Control
Various Departments in California (Selection Consulting Center, 1973)	Integrity	Dependability Desire for Self Improvement	Judgment under Pressure Willingness to Confront Problems
City of Chicago (Baehr et. al., 1969)	Personal Integrity and Ethics Objectivity	Take Orders	Tolerance for Stress Endure Verbal Abuse Effective Judgment
New York State Police (New York State Police Department, 1976)	-	Dependability Thoroughness Taking Orders Motivation	Act Under Pressure Function in Danger
Texas State Police (LWFW, 1975)	Character Objectivity Interpersonal Dominance	Personal Responsibility Investigative Thoroughness Conscientiousness Organization and Expression	Avoid Overuse of Authority Take Verbal Abuse Appropriate Aggressiveness
General Police (Heckman et. al., 1972)	Integrity and Professional Ethics	Commitment, Dedication and Conscientiousness Report Writing	Using Force Appropriately
General Police (Landy et. al., 1976)	-	Reliability Work Attitude	-

dimensions that have substantial overlap with the HPD responsibility construct. Furthermore, nearly all of the other studies found several components of the HPD emotional adjustment construct and an integrity/professional ethics factor similar to the HPD socialization construct.

In summary, there is a great deal of consistency for the three underlying construct dimensions across various law enforcement agencies. Regardless of the validity of the scales selected to measure them, there should be no doubt about the inherent importance of socialization (integrity and ethics), responsibility (dependability and conscientiousness) and emotional adjustment (self-control, handling of pressure and objectivity) to the successful functioning of Houston police officers.

B. LITERATURE REVIEW OF TEST CONSTRUCTS

The review contained in this section is primarily based on the CPI Manual (Gough, 1975), The California Psychological Inventory Handbook (Megargee, 1972), the Guilford Zimmerman Termperament Survey Handbook (J. S. Guilford, Zimmerman, & J. P. Guilford, 1976), the Guilford Zimmerman Temperament Survey: Manual (J. P. Guilford & Zimmerman, 1949), An MMPI Handbook (Dahlstron & Welsh, 1960), Basic Readings on the MMPI in Psychology and Medicine (Welsh & Dahlstrom, 1956), Personality (J. P. Guilford, 1959), and the DF Opinion Survey

Manual of Instructions and Interpretations (J. P. Guilford, Christensen, & Bond, 1956). Additional research literature was reviewed as appropriate.

1. The Socialization Construct

Purpose: The CPI Socialization (So) scale was chosen to measure the socialization job construct because of its impressive research and extensive construct validity. Originally named Delinquency (Gough, 1948; Gough & Peterson, 1952), the 54-item scale was developed to order individuals along an asocial (delinquency) to socialized continuum, and to predict the likelihood of transgression on established cultural mores (Gough, 1965b). The scale encompasses the full range of socialization characteristics, including social maturity, integrity and rectitude (Gough, 1965a; Gough, 1975). In contrast to the other constructs, socialization measures the extent to which individuals internalize society values and incorporate them into their own lives.

Scale Construction: The So scale was constructed on the basis of a comparison of responses from delinquents and nondelinquents. Nine samples in all were used with a total of 1,128 males and 302 females.

Items that differentiated consistently between delinquent

and nondelinquent subjects were retained in the scale. Cross-validation of the scale on a sample of Army recruits and stockade prisoners found prisoners did indeed score significantly lower than recruits. Subsequent analyses performed on other stockade prisoners supported the sensivity of the So scale. It was found that the So scale scores differentiated between first offenders and recidivists (Gough & Peterson, 1952).

Reliability: The primary objective of an inventory such as the CPI is to measure enduring personality characteristics. Scale scores should, therefore, be highly stable over time for a particular individual. Both long- and short-term test-retest relationships have been analyzed for all scales on the CPI. Short-term reliability coefficients (one to four weeks) for So have been high (.80 to .88), with longer term (one year) coefficients somewhat lower (.65 to .72), but still reasonable. The internal consistency of So is also moderately high with estimates based on the Kuder-Richardson Formula and "split-half" reliabilities ranging from .67 to .83 (Megargee, 1972).

Criterion-Related Validity Research Findings: The So scale has been the most thoroughly researched of all the CPI scales. Many studies have compared delinquents and

nondelinquents in the U. S. on the So scale. The basic design of these studies matches a delinquent group with a control group on various environmental factors. Such studies have consistently found that both male and female delinquents score significantly lower on So than the controls (Gough, 1965b; Gough, 1975; Peterson, Quay & Anderson, 1959; Richardson & Roebuck, 1965). A series of studies at Ohio State University (Reckless, Dinitz & Kay, 1957) have shown that So has predictive as well as concurrent validity. Sixth grade boys were divided into two groups based on their So scores. Four years later, 27 of the 70 low So scoring boys had histories and incidents of serious delinquency. Only 4 of 101 high So scoring boys were known to police four years later. In addition, the So scores of all subjects had not changed significantly (Dinitz, Scorpitti and Reckless, 1962).

Within delinquent samples, degrees of socialization have also been differentiated using So (Peterson, Quay & Anderson, 1959; Trapp, 1963). Actors differing on recidivism, frequency and seriousness of offenses have obtained significantly different So scores. Within non-delinquent samples, So has differentiated between marijuana users and nonusers (Hogan, Mankin, Conway & Fox, 1970), unwed and wed mothers (Vincent, 1961), disruptive and nondisruptive students (Kipnis, 1968) and high school

dropouts and graduates (Hase & Goldberg, 1967).

The So scale has been translated into a number of languages. In every nation where the test has been used thus far (including Austria, Costa Rica, France, Germany, India, Israel, Italy, Japan, Puerto Rico, South Africa, Switzerland and Taiwan), significant differences between offenders and non-offenders have been found.

In short, the research that has been accumulated on the concurrent and predictive validity of the So scale exhibits an impressive consistency spanning many studies and countries. The evidence present a strong argument for using the So scale as a means of differentiating between individuals with varying degrees of socialized behaviors.

Construct Validity Research Findings: In addition to the So scale's ability to differentiate between groups at opposite ends of the socialization continum, studies have been performed that support its construct validity. Hill (1967) and Megargee, Parker and Levine (1971) inves tigated the familial and social backgrounds of college students who scored at different points on the scale. These researchers found wide differences for these subje on family background and adjustment variables consistent

with the construct of socialization.

Gough (as cited by Megargee, 1972), in his role-taking theory of sociopathy, suggested that the higher an individual's socialization, the better he is likely to be at predicting how others will describe him. Reed and Cuacha (1951) have found evidence to support Gough's theory.

In summary:

> There seems little doubt that the So scale is one of the best validated and most powerful personality scales available; and as with any personality test score, reliable discrimination will even be improved by using So in conjunction with other data, particularly case history material. As one does research on personality assessment devices, one becomes aware of inherent limits on the degree to which any single scale score can correlate with overt behavior. However, the data indicate that few scales approach these limits as closely as does So (Megargee, 1972, p. 65).

2. The Responsibility Construct

Purpose: The Responsibility (Re) scale was developed to "identify people who were conscientious, responsible, dependable, articulate about rules and order, and who believe that life should be governed by reason (Megargee, 1972, p. 56)". In contrast to the other scales, Re emphasizes the conceptualization and understanding of society values and controls (whereas So measures the

extent to which they are internalized). There is, and should be, some overlap between Re and So.

The Re scale includes items representative of several characteristics. These include a concern for social, civic and moral obligations, an emphasis on duty and self-discipline, and disapproval of favortism. Re scale items also reflect self-confidence, trust and self-control.

Scale Construction: The Re scale was developed on the basis of teacher ratings on high school and college students. The scale was cross-validated on three samples of graduate students. Re scale scores correlated significantly with staff ratings of responsibility in two of the three cross validation samples. After these external criterion analyses were carried out, 56 items were selected, but the Re scale has since been shortened to 42 items.

Reliability: As on the So scale, the stability of Re scores has been analyzed in several respects. Short-term test-retest relationships spanning one to four weeks have been acceptably high (.83 to .85) and longer term (one year) reliability coefficients range from .65 to .73. Internal consistency of Re also has been acceptable, ranging from .67 to .82.

Criterion-Related Validity Research Findings: Studies that have used ratings of responsibility for criteria have shown moderate support for the Re scale. Correlations between ratings and Re scores have generally been in the .2 to .3 range (Hase & Goldberg, 1967). Gough (1975) reported that high school students nominated by their principal as most responsible had significantly higher Re scores than students nominated as least responsible.

The most consistently supportive evidence for the use of Re, however, comes from studies of delinquent and antisocial groups. A series of studies performed by Reckless investigated the personality factors involved in juvenile delinquency. It was found that Re scores could significantly predict boys nominated by their teachers as potential delinquents. In addition, significant differences on Re were found for delinquents who later appeared in court as compared with those who did not (Reckless, Dinitz & Kay, 1957). In other studies, higher Re scores were obtained for groups of nondelinquent (as compared to delinquent) mothers (Richardson and Roebuck, 1965); single girls never pregnant compared to unwed mothers (Vincent, 1961); "best citizen" high school students compared to disciplinary problem students (Gough, 1975); and marijuana non-users compared to users (Hogan, Mankin, Conway & Fox, 1970).

In short, it appears that groups characterized by irresponsible and antisocial behaviors score consistently lower on the Re scale when compared to groups of responsible, nondelinquents.

Construct Validity Research Findings: Several investigators have tested the validity of the Re scale by evaluating scores of individuals involved in tasks where responsibility and conscientiousness are important. In a study of Marine Corps personnel, Knopp (1960) found that officers scored significantly higher on Re than enlisted men. Olmsted and Monachesi (1956) found that Re scores of firemen were significantly higher than those of high school students.

Kohlfield and Weitzel (1969) investigated performance on duty-oriented but tedious tasks in relation to Re. In two separate studies, soldiers were instructed to walk a treadmill as fast as possible under two conditions: when they were being observed and when they were not observed. Differences in speed between the conditions served as the criterion of responsibility. In both investigations Re scores were significantly correlated to performance of these tasks. Similarly, Re was found related to the job performance levels of watchmakers (Gendre, 1966).

To conclude, in addition to the evidence on antisocial and delinquent groups, it appears that Re also is related to constructs such as attention to duty, responsibility and conscientiousness.

3. The Emotional Adjustment Construct

The emotional adjustment construct is measured by a combination of personality scales which individually purport to measure emotional stability or a component thereof. The specific formula for combining these relevant scales was determined by a method of scale clustering known as factor analysis. (Specific methodology is provided in Appendix C, but briefly included a Principle-Factor Solution with a quartimax rotation for all research scales except the CPI So, Re and Fe (femininity) and the MMPI-K or Correction scale.)

As expected, the test scales that prior research had linked to emotional stability were found to have high loadings on the general factor, subsequently named Emotional Adjustment. Table 4 shows the factor loadings and factor score coefficients for each of the scales previously identified as emotional in content and for other scales which attained factor loadings of .5 or higher.

TABLE 4

COMPOSITION OF THE EMOTIONAL ADJUSTMENT FACTOR

	Factor Loadings[1]	Factor Score Coefficients
CPI EMOTIONAL STABILITY FACTOR SCALES		
(Sc) Self Control	.830	.177
(Gi) Good Impression	.810	.090
(To) Tolerance	.776	.114
(Wb) Sense of Well Being	.764	.052
(Ac) Achievement via Conformity	.721	.049
(Ie) Intellectual Efficient	.649	.043
(Ai) Achievement via Independence	.626	.037
(Py) Psychological Mindedness	.572	.030
MMPI MALADJUSTMENT FACTOR SCALE		
Factor A	-.782	-.088
GZTS EMOTIONAL STABILITY FACTOR SCALES		
(O) Objectivity	.776	.094
(E) Emotional Stability	.733	.076
(F) Friendliness	.709	.090
(P) Personal Relations	.599	.033
DFOS SCALES WITH EMOTIONAL COMPONENTS		
(SR) Self Reliance	.739	.080
(RT) Realistic Thinking	.718	.085
(NF) Need for Freedom	-.562	-.037
OTHER SIGNIFICANT SCALES		
CPI Capacity for Status	.529	.030
MMPI Lie Scale	.614	.041
GZTS Restraint	.525	.044

[1]Only loadings greater than .500 are presented.

The resulting factor structure appears quite logical and by itself presents a strong case for the underlying emotional adjustment construct. That is, the emotional adjustment factor itself is composed of three separately identified emotional stability factors as follows:

CPI Factor 1 - Comprised of Sc, Gi, To, Wb, Ac, Ie, Ai and Py.

GZTS Factor 3 - Consisting of E, O, F and P.

MMPI A Factor scale - Primarily based on MMPI scales Ja, Pt, K, Sc, Gm, and M.

A summary of the evidence for each of these factors and for the scales which define them are presented next.

a. CPI Factor 1: A series of factor analytic investigations has resulted in a very consistent factor pattern for the CPI, with a very stable first factor. As a summary of research in Table 5 indicates, ignoring So and Re, Factor 1 is consistently comprised of Sc, Gi, Wb, To, Ac, Ai, Ie and Py -- the same scales that loaded on the emotional adjustment construct factor in the present study. Other researchers have named this factor "Adjustment", "General Adjustment", "Personal Integrity and Mental Health", "Adjustment by Social Conformity", "Self-Control" and "Value Orientation" (Megargee, 1972). A brief description of the three primary

TABLE 5

SCALES HAVING NOTEWORTHY LOADINGS ON FACTOR 1

IN TWENTY FACTOR ANALYSES[1]

Analysis Number	Scales							
	Wb	Sc	To	Gi	Ac	Ai	Ie	Py
1	.67	.83	.56	.87	.72			
2		.50		.61	.45			
3		.65		.69				
4		.58		.67				
5	.79	.92	.67	.83	.80	.47	.46	.47
6	.70	.83	.71	.77	.79	.48	.58	.45
7	.78	.87	.74	.75	.75	.55	.66	.49
8	.67	.78	.60	.75	.57		.58	.45
9	.81	.87	.78	.80	.77	.50	.61	.58
10	.77	.91	.67	.83	.76	.46		
11	.64	.86	.50	.85	.62			
12	.78	.91	.81	.77	.79	.62	.66	.55
13	.71	.93	.76	.83	.84	.56	.64	.56
14	.70	.91	.64	.86	.79		.52	.47
15	.83	.89	.78	.83	.75	.50	.59	
16	.82	.85	.62	.86	.72			
17	.72	.87	.76	.71	.79	.59	.60	.51
18	.82	.79	.85	.63	.82	.77	.79	.69
19	.62	.84	.60	.86	.61		.45	
20	.79	.81	.51	.74	.70		.53	

[1](Abstracted from Megargee, 1972, p. 111.)

scales that load on CPI Factor 1 (Sc, Gi and To) and a summary of their validation evidence follow below:

- Self-Control (Sc): The Sc or Self-Control stresses the extent to which individuals agree to and advocate regulatory controls on their behaviors. It was designed to measure several stability-related personality characteristics, such as, self-regulation, self-control and freedom from impulsivity (Megargee, 1972). In addition, it is considered one of the purest measures of CPI Factor 1 (Megargee, 1972) and often has the highest loading on this factor (see Tables 4 and 5). The specific Sc item content is oriented toward general adjustment and stability, with items relating to restraint of impulses and irrational behaviors, preference for thought and reason, and adherence to social inhibitions.

  Several validity studies of Sc support its use as an adjustment scale. Gough (1975) compared the Sc scores of students rated as most and least impulsive. The two groups differed significantly on mean Sc and this finding was replicated in samples of workers and military officers using staff ratings of impulsivity.

Overall, Sc is a valuable component of emotional adjustment, particularly as an indication of control of emotional impulsivity. Of potential concern with this scale, however, is that extreme high Sc scores can indicate overcontrol and possible poor adjustment patterns.

- Tolerance (To): The To or Tolerance scale of the CPI was developed to identify social tolerance as characterized by permissive, accepting and nonjudgmental social beliefs. As does Sc, the content of the To scale items reflects positive adjustment: openness and flexibility as opposed to rigidity or dogmatism; intellectual and aesthet interests; trust as opposed to cynicism; and denial of alienation and free-floating hostility (Megargee, 1972; Gough, 1975).

  The validity of To has generally been shown in reference to its relationship with other test measures of prejudice. In several studies, To scores had significant relationships with the California F (authoritarian) scale (Gough, 1975; Jensen, 1957). Significant relationships also were found between To and the Chicago Inventory of Social Beliefs (Gough, 1975), the Purdue

Attitude Toward Jews scale, and a desegration scale (Megargee, 1972). There is little evidence, however, of To's usefulness with respect to behavioral criteria. Nonetheless, To is well-suited as a measure of rigidity of thought, prejudgment, cynicism and other aspects of adjustment.

- Good Impression (Gi): The Good Impression scale (Gi) was originally developed to identify individuals who tended to "fake" their CPI record, usually in a socially desirable direction. It also is used to identify people who are concerned with how others react to them and with making a favorable impression.

  The items on Gi tend to emphasize good functioning, virtue, and a denial of antisocial behaviors, complaints, or human failings. Items also reflect confidence, self-assurance, and denial of aggressive or unethical tendencies. High scores on Gi accentuate freedom from anxiety, stability, desire for social approval and concern for humanity (Megargee, 1972). They tend to be described as cooperative, enterprising, outgoing, diligent and persistent (Gough, 1975). Thus, although Gi is primarily a validity or fake scale, its strong

relationship with the emotional adjustment construct is understandable.

Research on Gi has dealt mostly with instruction "set" dissimulations. Subjects instructed to fake their answers or to try to create a favorab impression consistently obtain higher Gi scores than subjects given standard instructions (Dicke 1960; Gough, 1969). In addition, Gi correlated .32 with interest maturity from the Strong Vocational Interest Blank (Gough, 1975).

In summary, "Scores somewhat above average on Gi are indications of favorable attitudes and conscientious efforts to fit in and to adapt. Very high scores raise the possibility of test 'faking (Gough, 1975, p. 16)."

b. GZTS Factor 1: The GZTS also has been the subject of numerous factor analyses. As with the CPI, sever very stable factors have emerged. In particular an emotional maturity factor containing the E, O, F and P scales is consistently obtained (see Table 6). Th GZTS factor loadings on this factor conform very closely with those obtained in the present study (compare to Table 4). A description of Objectivity and Emotional Stability, the two scales with highest loadings on this factor, are presented below.

TABLE 6

SUMMARY OF LOADINGS ON THE GZTS SCALES

ON THE EMOTIONAL MATURITY FACTOR AS FOUND IN 23 FACTOR ANALYSIS REPORTS[a]

	Emotional Maturity vs. Neuroticism and Paranoid Disposition			
	E	O	F	P
Baker & Schultz (1961)	.78	.87	.78	.74
Barratt (1965)	.84	.77	X	X[b]
Barrett (1958)	.65	.84	.53	.56
Bendig (1960a)	.77	.90	.57	.62
Bendig (1962a)[c]	.65	.59	.73	.64
	.70	.38	.67	.60
Bendig (1962b)[c]	.51	.36	.45	.52
Bendig & Meyer (1963)	.73	.69	.74	.60
Borgotta (1962a)	.77	.65	X	X
	.76	.57	X	X
Cook, et. al. (1963)	.55	.73	.64	.71
Cook, et. al. (1961)	.68	.80	.78	.75
K. J. Jones (1965)	.78	.73	.58	.75
Kelly (1960)	.80	.88	.60	.65
	.77	.77	.69	.60
Krug & Moyer (1961)	.69	.82	.53	.47
	.80	.88	.71	.54
Marks, Michael, & Kaiser (1961a, 1961b)	.66	.73	.77	.58
	.78	.84	.64	.44
Singer & Antrobus (1963)	.53	.45	-	-[d]
Stagner (1962)	.46	.58	.65	.73
	.35	.72	.87	.58
	.37	.68	.74	.80

[a](Abstracted from Guilford et. al., 1976, p. 22).

[b]An X means that the scale was not analyzed in the study.

[c]In these studies, the third factor divided, with E-O and F-P forming separate second-order dimensions.

[d]One blank in a set of loadings means that the loading for one scale was not significant.

- Objectivity (O): The GZTS Objectivity scale (O) was designed to differentiate between "thick-skinned" persons and those who are hypersensitiv. egotistical or suspicious. The person scoring high on O tends to be able to insulate internal feelings from external events. High O is very useful for individuals in jobs where sensitivity to the feelings of others may interfere with performance, such as Deans of Admissions, Registr surgeons, and police officers. High O will be us ful in occupations where the incumbent is require to sometimes treat people as objects.

  The person low on O is extremely thin-skinned, takes criticism badly, and easily becomes personally involved in events. These reactions do not imply empathy as much as inability to discriminate actual versus imagined personal meaning.

  The O scale is consistently found on emotional adjustment or stability factors (see Table 6) and combined with the E scale (discussed below), score patterns may be reliably interpreted as indicating general adequacy of emotional response. Low E and O individuals experience emotional reactions that threaten to overwhelm them. High

E and O usually indicate performance effectiveness except where emotional involvement is an important aspect of the job (Guilford Zimmerman & Guilford, 1976).

There are many studies cited by Guilford et al (1976) that demonstrate the criterion-related validity of the O scale of the GZTS. Guthrie, Tabachnick, and Venezia found that diagnosed schizophrenics scored significantly lower than the GZTS norm group on Emotional Stability, Objectivity, Sociability and Masculinity. Cornell found that anxiety reaction patients were significantly different than college students on E and O. Nielsen found that boys who tended to be socially isolated also scored low on O. Other groups scoring significantly lower than controls on both the GZTS O and E scales include patients in counselling or therapy, delinquents, criminals, and alcoholics. Several studies on problem drivers have consistently found a negative relationship between the emotional health cluster of the GZTS, including O and E, and both accidents and violations.

There also is construct validity evidence for O.

With respect to occupational groups, discussed later, jobs can be ranked by incumbent's mean O score with a great deal of conceptual consistenc In particular, police officers place very high on this ranking. Analyses with other personalit tests have shown O to be significantly related t similar objectivity test constructs, such as the and Q4 scales on the 16PF, the D, Mf, and Pt scales of the MMPI, and To, Ie, Ai and Sc scales of the CPI (Guilford et al 1976).

Other relationships also have been found, but in short, the O scale of the GZTS appears to be both useful in terms of classifying people and clear in its relationship with an emotional objectivity construct.

- Emotional Stability (E): The E scale of the GZTS can be characterized by several dichotomies. It indicates evenness of moods versus mood fluctuation; optimism and cheerfulness versus pessimism and gloominess; composure versus excitability; and feeling in good health versus feelings of ill health, guilt or worry. Overall, a high score on E means that the individual tends to react consistently across situations. High E

implies that stress will not result in a disoriented response. The high E individual tends to react to stimuli within himself rather than from without. Thus, in situations where consistency of behavior is required in the face of inconsistent conditions the high scoring E individual will perform well. It is also important to note, that where an individual's dominant pattern is characterized by a psychological disorder, high E will indicate the pervasiveness of that pattern as well.

As discussed above, both E and O have been supported in criterion-related and construct validity studies. Briefly, E has been found to significantly differentiate psychotics, delinquents, criminals, alcoholics and problem drivers (Guilford et al 1976). Its pattern of relationships with other scales also is very similar to that obtained with O. Thus, both E and O appear to be well supported as measures of important aspects of the emotional adjustment construct.

c. MMPI-A General Emotional Upset: Unlike the other scales that make up the emotional adjustment construct derived in the present study, the A scale of the MMPI is itself a conbination of many scales. Welsh

(in Welsh & Dahlstrom, 1956) noted that all factor analyses of MMPI scales had revealed at least two major sources of variation. The first of these two factors, A, has been called General Anxiety or emotional upset. The second factor, R, has been called social dependency. Both these factors have been found repeatedly and appear to be "relatively pure measures of two pervasive sources of variance among the basic MMPI scales". (Dahlstrom and Welsh, 1960, p. 85)

These findings have been used to create a shortened version of the MMPI that can be used to indicate general maladjustments. This measure, known as the LARK was administered in the present study and includes A and R in addition to two "validity" or falsification scales. Of these four scales, it is not surprising that A loaded highly on the emotional adjustment factor. (See Table 4. The loading is negative because high A scores indicate a greater degree of anxiety and maladjustment.)

The items of the A scale can be grouped into several content categories. These include ineffective thinking and thought processes, negative emotional tone and anxiety, lack of energy and pessimism,

hypersensativity, and evidence of serious psychological disturbances. These item categories come primarily from four original MMPI scales which load on A: K (defensiveness, negative loading), Pt (obsessive-compulsive, positive loading), Sc (schizophrenia, positive loading) and Gm (general maladjustment, positive loading) (Welsh in Welsh and Dahlstron, 1956). These component scales have often been considered to represent more generalized maladjustment than their names imply (Dahlstrom & Welsh, 1960).

Validity of the A scale has been supported in many studies, as reported by Dahlstrom and Welsh. Diagnosed alcoholics score consistently higher on A than normals. Severity of psychological problems is also highly related to A. Such problems are characterized by poor decision-making, poor social interactions, suggestibility, and confusion under stress. Scores on A also have been linked to progress in therapy. In short, the Factor A, is a useful measure of a wide range of emotional and psychological abnormalities.

d. The DF Opinion Survey: The DF Opinion Survey was an outgrowth of a very comprehensive factor analytic investigation of interests and motivations based on

Murray's need system. Although little research has been reported in the literature for this test, the authors have used it extensively and have conducted research with it. In unpublished factor analytic studies with the GZTS and DFOS, the authors have obtained "emotional stability" factors consisting of the following:

	FACTOR LOADINGS	
Scale	Study 1	Study 2
GZTS-E	.87	.39
GZTS-O	.77	.34
GZTS-F		.45
DFOS-SR	.67	.48
DFOS-RT		.57
DFOS-NF		.40

As a brief discussion below indicates, the SR and RT scales, in particular, have some strong emotional components to justify their inclusion in the Emotion Adjustment factor.

- Self-Reliance (SR): Items at the positive end of this bipolar scale manifest a number of attributes relating to independence, self-reliance, decisiveness, and dependability. Persons with high self-reliance (SR) show a strong sense of responsibili and conscientiousness in their work, rarely blame others for their difficulties, rarely complain an

are able to delay their impulses.

Persons with low SR scores tend to be submissive, subservient and dependent upon others for advice and support. They also crave attention and approval to boost their egos, tend to blame others for their difficulties, and are unable to delay immediate impulse gratification (Guilford, Christensen & Bond, 1956). These latter characteristics are obvious components of emotional instability.

- Realistic Thinking (RT): RT is a bipolar dimension with autistic thinking at one extreme and realistic thinking at the other. High RT scorers tend to be practical, forthright and direct. They take a realistic view of themselves and others, tend to have a matter-of-fact attitude about things. Individuals who score low on RT have been identified as idealistic and impractical decision makers who frequently engage in wishful, fanciful thinking in an attempt to enhance their own self-esteem (Guilford, 1959). Autism is a component of emotional adjustment, therefore, RT appropriately loaded high on the emotional factor in this study.

- Need for Freedom (NF): Individuals low on the NF scale tend to be very systematic and organized. They prefer order, systems and procedures and controls. They are capable of conforming to rigid schedules and are able to accept externally imposed restrictions. Persons with high needs for freedom tend to be non-conforming and disorganized. They dislike restraints in any guise and cannot stick to rigid schedules, preferring freedom and complete flexibility. Those with extremely high scores tend to openly rebel against all restraints and restrictions. Disorganization and rebelliousness are both emotional components; thus, the high negative loading for NF on the emotional adjustment construct in Table 4 is logical and in the proper direction.

e. Concluding Comments

The foregoing literature review of test constructs used in the present study has included a great deal of material. The interested reader is encouraged to consult the references cited if a more in-depth analysis of particular scales or relationships is desired. The objective with regard to the present report, was not to exhaustively review all available

research on the personality scales used. Instead, the authors have attempted to present an overview of evidence relevant to the use of these scales as measures of the socialization, responsibility, and emotional adjustment constructs. Not all of the evidence was unreservedly supportive. Overall, however, the findings weigh heavily in support of the validity of the measures used in the present study. The next section of this chapter further substantiates the usefulness of the present measures by reviewing research specifically related to police departments.

C. POLICE RELATED RESEARCH AND NORM GROUP COMPARISONS

Several researchers have analyzed the importance of socialization responsibility and emotional adjustment in police performance. Matarazzo, Allen, Saslow and Wiens (1964) found that, along with other characteristics, typical police officers are relatively free from pretence and affectation, are able to get along well in the world as it is, are socially appropriate in their behavior, are dependable and responsible, and are able to keep out of trouble. In another study (Baehr, Furcon and Froemel, 1968) the personal characteristics of officers were studied in relation to their field performance. Highly rated performers were associated with interests in family activities, satisfactory family relationships and

other background variables indicating a high degree of socialization, responsibility and emotional adjustment.

Other researchers have used specific instruments relevant for the present study. Gough (as cited by Blum, 1964) found that the So scale of the CPI was significantly related to the performance effectiveness of correctional officers ($r = .35$). Hogan (1971, 1975) used the CPI in two studies of police officer performance. In his 1971 study, Hogan obtained a correlation of .24 between ratings on rookie officers and CPI-So scores. Although this value fell slightly below that needed for significance at the .05 level of confidence, it should be noted that the relationship was not corrected for unreliability in the officer ratings. In addition, a single global rating of performance, as used by Hogan, dilutes the importance of any individual personality characteristic for performance. That is, the global rating includes intelligence, physical abilities, friendliness, and so on, in addition to socialized job performance behaviors. Nonetheless, Hogan was able to obtain a correlation of .30 (significant at .05 level of confidence) between the CPI-Re scale and performance evaluations. Hogan concluded that his findings agreed with those in previous studies characterizing the effective police officer as motivated to achieve, respectful of authority, sociable, practical and self-assured. Similar conclusions were reached in his second study (Hogan & Kurtines, 1975).

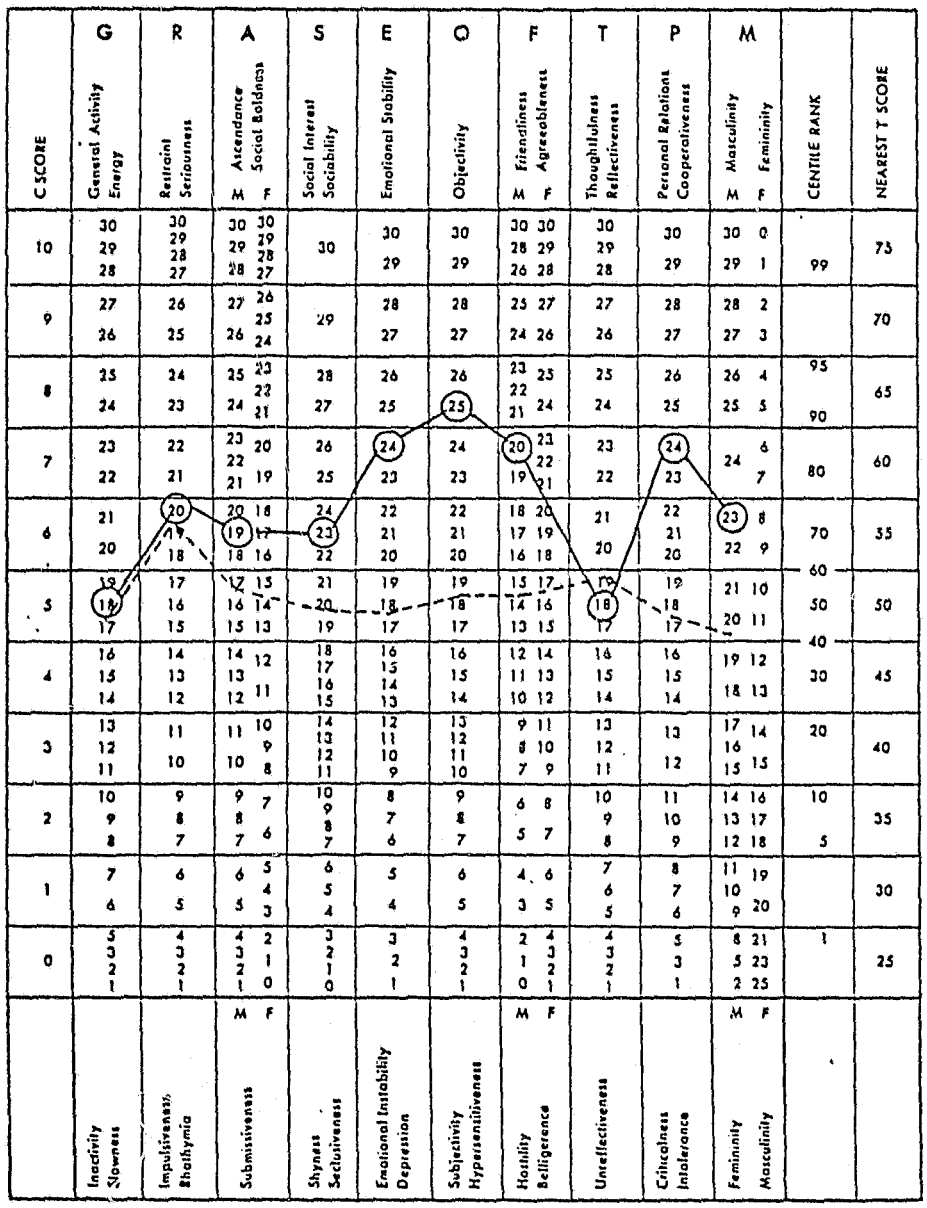
Validity studies have also been performed in police departments using the GZTS and the MMPI, both of which are components of the Emotion Adjustment construct. Hankey (1968) administered the GZTS to 801 police officers. He found that the best predictors of various performance criteria were Personal Relations, Masculinity, Emotional Stability (positive weight), Ascendence and Friendliness (negative weight). Other significant relationships were found for Work Performance with General Activity, Objectivity and Personal Relations.

The pattern of scores in Figure 1 based on the mean scores for Hankey's group presents an exceptionally "healthy" profile (Guilford, Zimmerman & Guilford, 1976). Apparently, police officers in Hankey's sample tended to be emotionally stable, objective, more friendly than hostile, able to get along well with others and masculine in their orientation. A profile based on a large sample of college students, a usual normative group, is presented for comparison. Differences between police officers and this norm profile are particularly noticeable on the E, O, F, P and M scales. Using the GZTS, Hankey was not able to differentiate terminated officers from those who remained on the force, however.

The MMPI has also been used in police department settings. Although no studies were found that used the MMPI-A construct,

FIGURE 1

PROFILE CHART FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY



—— Pattern of Scores for 801 Police Officers (Hankey, 1968).

---- Pattern of Scores for 3178 College Students (Male) (Guilford et. al., p.425).

research has revealed significant relationships using the major components of A. Blum (1964) found that the So scale of the MMPI (schizophrenic personality trends) correlated significantly with three criteria of police officer performance, including instances of serious misconduct (.47). The Pt scale (obsessive-compulsive tendencies) was found to have similar relationships with Blum's criteria.

Normative Data and Group Comparisons

The CPI Manual (Gough, 1975) includes normative information for all CPI scales on various male and female samples. For example, on So and Re, the mean and standard deviation is given for male physicians, scientists, policemen, business executives and female teachers, office workers, mathematicians, and writers. In addition, groups characterized by poor adjustment patterns, such as delinquents and prison inmates also are included for both males and females.

As an illustration of the validity studies on So, Gough (1975) ranked selected normative groups by mean So score for both males and females. The resulting table and the statistical tests performed on it were a further indication of the sensativity of the So scale to the construct of socialization. Unfortunately, Gough's rank order analysis did not include normative information on police officers.

For this reason, tables similar to Gough's original one were constructed from normative information available in the CPI manual. These newly constructed tables contain all occupational groups available, including police officers as well as special groups with poor adjustment patterns. This was done for So, Re, and for the major scales loading on emotional adjustment (i.e. CPI Sc, To and Gi and GZTS O and E).

Several points can be made with respect to Table 7, which contains various groups ranked by mean So. First, across both male and female samples, the more highly socialized groups appear toward the top while the poorly adjusted groups are exclusively at the bottom of the continuum. A t test of mean differences was performed to evaluate the significance of this apparent dichotomy. A conceptual break was placed between samples 13 and 14 for the males and between 11 and 12 for the females. (These breaks were placed at the points where occupational groups ended and the poorly adjusted groups began.) Samples above and below this break then were collapsed into two separate groups and a t statistic, testing the hypothesis of no difference between each group on So, was computed. As shown at the bottom of Table 7 the t statistic was significant at the .01 level for males and at the .001 level for females. This indicates that the magnitude of difference between the mean So score in the occupational group and the mean So in the

TABLE 7

MALE AND FEMALE GROUPS RANKED BY

MEAN SOCIALIZATION (SO) SCORE[1]

Males				Females			
Group	N	Mean So	SD	Group	N	Mean So	SD
Bank Managers	49	39.8	4.7	Nursing Students	168	40.8	4.0
College Students	3103	39.7	4.8	Medical Students	86	39.0	4.5
Physicians	312	39.0	4.2	Psychiatric Caretakers	140	38.7	4.8
Salesmen	85	38.3	4.7	Grade School Teachers	56	38.3	5.2
Business Executives	185	37.9	4.5	Mathematicians	41	38.2	4.0
Policemen	88	37.7	3.9	Airline Hostesses	60	38.1	4.5
Mathematicians	57	37.3	4.4	Social Work Grad. Student	324	38.0	4.6
Architects	124	36.6	4.6	Telephone Co. Supers.	297	37.4	5.4
Military Officers	343	36.3	4.7	Office Workers	177	37.3	5.2
Research Scientists	45	36.1	4.5	College Students	2000	37.0	5.3
Machine Operators	105	36.1	5.0	Writers	30	36.6	5.2
Correctional Officer	223	36.1	5.0	High School Discip. Probs.	87	34.8	7.1
Psychiatric Resident	262	36.0	4.0	Psychiatric Clinic Patient	100	34.7	6.1
Psychiatric Cl. Pat.	100	32.8	7.0	Prison Inmates	338	27.9	6.3
High Sch. Dis. Prob.	91	31.3	5.4	Young Delinquents	25	25.3	5.5
Young Delinquents	142	29.0	6.1				
Prison Inmates	194	27.5	5.4				
Norm Sample	6200	36.7	5.6	Norm Sample	7150	39.5	5.3

t tests of mean differences	t value	sig. level
Samples 1-13 vs. Samples 14-17	32.6	.001
Police Officers vs. Norm Sample	2.37	.01

t tests of mean differences	t value	sig. level
Samples 1-11 vs. Samples 12-15	23.2	.001

[1]Abstracted from Gough (1975).

"poorly adjusted" group could be expected to occur by chance one time in a hundred (males) or a thousand (females). Thus these two groups can be clearly differentiated based on their mean So scores, regardless of sex.

Second, in the male sample, norms for police officers were included in the group rankings for So. Police officers were sixth from the top out of 17 research samples. It was earlier hypothesized that those in the occupation of police work would be characterized by significantly higher socialization than those in the general population. In order to test this hypothesis, another t test was performed between the police officer sample and the general norm sample provided in the CPI manual. This t test was also significant and strongly supports the hypothesis that police officers are more socialized than people in general.

Table 8 makes these same points with respect to Re. Occupations requiring a high degree of responsibility are located at the top while poorly adjusted groups are invariably ranked at the bottom of the Re continuum. For males, police officers ranked fifth out of 17 total samples. In addition, both t tests, as discussed above, were significant, indicating that Re also can differentiate between normal and abnormal groups and between police officers and the general population at significantly better than chance levels.

TABLE 8

MALE AND FEMALE GROUPS RANKED BY MEAN RESPONSIBILITY (RE) SCORES[1]

Males				Females			
Group	N	Mean Re	SD	Group	N	Mean Re	SD
Physicians	312	34.5	4.0	Grade School Teachers	56	34.5	4.5
Research Scientists	45	34.1	3.2	Nursing Students	168	34.5	3.4
Mathematicians	57	34.0	3.6	Mathematicians	41	34.4	3.1
Bank Managers	49	33.1	3.5	Medical Students	86	34.1	3.9
Policemen	88	32.9	3.3	Social Work Students	324	33.5	3.5
College Students	3103	32.8	4.0	Writers	30	31.8	3.9
Architects	124	32.6	3.8	Psychiatric Caretakers	140	31.6	5.3
Military Officers	343	32.2	4.4	Telephone Co. Supers.	297	31.3	4.3
Business Executives	185	32.1	4.9	Office Workers	177	31.0	4.4
Psychiatric Resident	262	31.7	4.0	Airline Hostesses	60	30.9	3.8
Salesmen	85	31.6	4.4	College Students	2000	30.8	4.7
Machine Operators	105	31.1	5.0	Psychiatric Clinic Patient	100	28.8	5.3
Correctional Officer	223	30.4	5.0	High School Discip. Prob.	87	26.0	5.6
Psychiatric Cl. Pat.	100	25.8	5.8	Prison Inmates	338	25.5	6.1
Young Delinquents	142	23.9	5.0	Young Delinquents	25	20.8	6.3
Prison Inmates	194	22.2	6.8				
High Sch. Dis. Prob.	91	21.7	4.7				
Norm Sample	6200	31.1	5.0	Norm Sample	7150	32.1	4.8

t tests of mean differences	t value	sig. level
Samples 1-13 vs. Samples 14-17	-35.03	.001
Police Officers vs. Norm Sample	- 5.03	.001

t tests of mean differences	t value	sig. level
Samples 1-11 vs. Samples 12-15	-31.26	.001

[1]Abstracted from Gough (1975).

Similar analyses were performed for the CPI Sc, To and Gi scales and for the GZTS O and E scales. Without exception, all results supported the foregoing conclusions (see Tables 9 through 13). In fact, police officers had the highest average group scores for Self-Control, Good Impression, Objectivity and Emotional Stability. Although extremely high scores may indicate excessive emotional control on those dimensions, police officers are generally in the high average to high range, and within normal limits. Police officers share these higher averages with other high scoring groups such as physicians, business executives, and firefighter applicants.

Concluding Comments

With the addition of the immediately foregoing literature and analyses, the research covered thus far strongly supports each of the selected scales as criteria for police officer performance. For most scales, evidence of both construct and criterion validation has been presented to clarify the dimensions measured. Furthermore, research has spanned law enforcement agencies, occupational groups, and in addition, various types of poorly adjusted subgroups including delinquents, criminals, alcoholics, psychiatric patients, etc.

Allowing that the three constructs of socialization, responsibility and emotional adjustment have been justified as

TABLE 9

MALE AND FEMALE GROUPS RANKED BY MEAN SELF-CONTROL (SC) SCORES[1]

Males				Females			
Group	N	Mean Sc	SD	Group	N	Mean Sc	SD
Policemen	88	35.7	5.3	Psychiatric Caretakers	140	36.5	6.2
Machine Operators	105	34.7	7.0	Mathematicians	41	33.8	6.1
Physicians	312	33.7	5.9	Grade School Teachers	56	33.5	7.3
Business Executives	185	33.3	7.0	Social Work Grad. Students	324	32.1	7.1
Bank Managers	49	33.3	7.2	Medical Students	86	32.0	6.3
Research Scientists	45	32.7	5.3	Nursing Students	168	31.4	6.5
Correctional Officer	223	32.1	7.1	Telephone Co. Supers.	297	30.2	7.2
Salesmen	85	32.0	6.2	Office Workers	177	29.9	7.2
Mathematicians	57	31.8	6.9	Writers	30	29.6	6.5
Architects	124	30.0	6.2	Psychiatric Clinic Patient	100	29.5	7.8
College Students	3103	29.7	7.1	Airline Hostesses	60	28.6	5.9
Military Officers	343	29.6	7.5	College Students	2000	27.8	7.4
Psychiatric Resident	262	29.3	6.4	Prison Inmates	338	25.7	7.8
Psychiatric Cl. Pat.	100	26.7	9.0	High School Discip. Prob.	87	23.9	8.4
Young Delinquents	142	26.2	7.9	Young Delinquents	25	19.8	7.7
Prison Inmates	194	24.9	9.1				
High Sch. Dis. Prob.	91	21.7	6.9				
Norm Sample	6200	31.0	7.4	Norm Sample	7150	32.0	7.2

t tests of mean differences	t value	sig. level
Samples 1-13 vs. Samples 14-17	13.15	.001
Police Officers vs. Norm Sample	5.93	.001

t tests of mean differences	t value	sig. level
Samples 1-11 vs. Samples 12-15	9.53	.001

[1]Abstracted from Gough (1975).

TABLE 10

MALE AND FEMALE GROUPS RANKED BY MEAN TOLERANCE (TO) SCORES[1]

	Males				Females		
	Group	N	Mean To	SD	Group	N	Mean To
1	Research Scientists	45	27.1	3.3	Medical Students	86	27.6
2	Physicians	312	26.4	3.6	Social Work Grad. Students	324	27.0
3	Psychiatric Resident	262	25.9	3.4	Nursing Students	168	26.0
4	Policemen	88	25.8	4.0	Mathematicians	41	25.5
5	Business Executives	185	25.4	4.4	Grade School Teachers	56	25.1
6	Bank Managers	49	25.3	3.8	Writers	30	24.8
7	Mathematicians	57	25.0	4.2	Airline Hostesses	60	24.5
8	College Students	3103	24.6	4.1	College Students	2000	23.3
9	Salesmen	85	24.1	4.1	Office Workers	177	23.0
10	Architects	124	23.9	37.7	Telephone Co. Supers.	297	23.0
11	Military Officers	343	23.5	4.3	Psychiatric Caretakers	140	20.8
12	Machine Operators	105	23.2	4.5	Psychiatric Clinic Patient	100	18.5
13	Correctional Officer	223	22.1	4.9	High School Discip. Prob.	87	16.2
14	Psychiatric Patients	100	18.0	5.9	Prison Inmates	338	15.5
15	Young Delinquents	142	16.3	5.2	Young Delinquents	25	11.8
16	High Sch. Dis. Prob.	91	15.8	4.8			
17	Prison Inmates	194	15.8	5.7			
	Norm Sample	6200	22.9	4.8	Norm Sample	7150	23.0

t tests of mean differences	t value	sig. level
Samples 1-13 vs. Samples 14-17	-34.4	.001
Police Officers vs. Norm Sample	5.64	.001

t tests of mean differences	t value	sig. level
Samples 1-11 vs. Samples 12-15	-28.01	.001

[1]Abstracted from Gough (1975).

TABLE 11

MALE AND FEMALE GROUPS RANKED BY[1] MEAN GOOD IMPRESSION (GI) SCORES

Males				Females			
Group	N	Mean GI	SD	Group	N	Mean GI	SD
Policemen	88	24.0	5.8	Psychiatric Caretakers	140	23.8	5.5
Machine Operators	105	22.1	5.9	Medical Students	86	20.5	6.0
Business Executives	185	21.7	7.0	Grade School Teachers	56	20.5	6.1
Physicians	312	21.0	6.2	Social Work Grad. Students	324	19.5	6.1
Salesmen	85	20.7	5.6	Airline Hostesses	60	19.3	5.1
Bank Managers	49	20.2	7.1	Telephone Co. Supers.	297	19.1	6.0
Correctional Officer	223	20.0	6.5	Nursing Students	168	19.1	6.0
Research Scientists	45	19.4	5.1	Office Workers	177	18.8	6.2
Military Officers	343	19.2	6.3	Mathematicians	41	18.2	5.6
College Students	3103	17.7	5.7	College Students	2000	17.1	6.0
Architects	124	17.4	5.7	Writers	30	16.8	5.2
Psychiatric Resident	262	17.2	5.7	Prison Inmates	338	16.6	6.8
Mathematicians	57	17.1	6.1	Psychiatric Clinic Patient	100	16.0	6.2
Prison Inmates	194	16.2	6.6	High School Discip. Prob.	87	14.0	5.4
Young Delinquents	142	16.1	6.0	Young Delinquents	25	11.4	5.2
Psychiatric Cl. Pat.	100	15.1	5.6				
High Sch. Dis. Prob.	91	13.1	5.6				
Norm Sample	6200	20.0	6.0	Norm Sample	7150	20.0	6.0

t tests of mean differences	t value	sig. level
Samples 1-13 vs. Samples 14-17	6.37	.001
Police Officers vs. Norm Sample	5.87	.001

t tests of mean differences	t value	sig. level
Samples 1-11 vs. Samples 12-15	5.53	.001

[1] Abstracted from Gough (1975).

TABLE 12

GROUPS RANKED BY MEAN GZTS OBJECTIVITY (O) SCORES (1)

Group	N	Mean	SD
Police Officers	801	24.47	3.78
Salesmen	50	22.86	4.17
Mixed Employees	407	22.0	4.8
Police and Fire Applicants	165	22.0	*
Managerial Candidates	5,313	22.0	*
Assemblers	67	21.45	4.42
Top Level Bankers	121	21.0	*
Drinking Drivers (Light)	169	20.36	5.46
Female Social Workers	89	19.7	5.2
Female Secretaries	92	19.65	4.85
Female Office Workers	49	19.6	4.7
Skilled Craftsmen	446	18.83	5.62
Drinking Drivers (Medium)	123	18.7	6.17
Female Elementary Teachers	121	17.94	5.36
Female Secondary Teachers	147	17.8	5.18
Musicians	104	17.8	5.55
Drinking Drivers (Heavy)	112	16.67	5.63
Delinquent Boys	236	17.0	*
Anxiety Reaction Patients	24	15.0	*
Schizophrenic Males	26	14.0	*
Norm Group (College Males and Females)	5,801	17.66	5.19

T-Test of Mean Differences		T
Police Officers	24.47	35.84
Norm Group	17.66	

*Standard Deviation Unavailable

(1) Abstracted from Guilford, et al, 1976.

TABLE 13

GROUPS RANKED BY MEAN GZTS EMOTIONAL STABILITY (E) SCORES (1)

Group	N	Mean	SD
Police Officers	801	24.27	3.45
Salesmen	50	23.34	4.17
Police and Fire Applicants	165	23.0	*
Managerial Candidates	5,313	23.0	*
Mixed Employees	407	22.8	*
Drinking Drivers (Light)	169	22.52	3.97
Assemblers	67	21.97	3.97
Female Office Workers	49	20.4	5.4
Drinking Drivers (Medium)	123	20.24	5.37
Skilled Craftsmen	446	20.32	4.91
Top Level Bankers	121	20	*
Female Social Workers	89	19.2	6.6
Female Elementary Teachers	121	18.9	6.16
Female Secretaries	92	18.55	5.14
Female Secondary Teachers	147	18.37	6.04
Drinking Drivers (Heavy)	112	17.93	5.93
Delinquent Boys	236	16.5	*
Musicians	104	16.2	6.83
Schizophrenic Males	26	13.0	*
Anxiety Reaction Patients	24	9.0	*
Norm Group (College Males and Females)	5,801	17.26	5.81

T-Test of Mean Differences		T	Sig.
Police Officers	24.27	33.30	P <.001
Norm Group	17.26		

*Standard Deviation Unavailable

(1) Abstracted from Guilford, et al, 1976.

essential to police officer job performance, and that appropriate scales have been found to measure them, it is realistic to ask how appropriate these scales are for the Houston Police Department in particular. The following sections of this chapter summarize three types of research, each conducted to determine if a relationship exists between the test construct scales and job related criteria.

D. COMPARISON OF ACCEPTED AND UNACCEPTED APPLICANTS

Although not a direct evaluation of the job relatedness of the three test construct scales, a comparison of accepted and unaccepted HPD applicants on these scales provides useful information. To make this comparison, it is first necessary to assume that the HPD screening process is job related and that the Department is selecting applicants according to important underlying job dimensions. Consequently, one would next hypothesize that accepted HPD applicants perform higher on the test construct scales than unaccepted applicants. Refutation of this hypothesis would question the job relatedness of the Department's selection procedures, the appropriateness of the underlying constructs, or both.

The above hypothesis was tested by comparing the mean construct scores for accepted and unaccepted applicants. The unaccepted sample was composed of applicants who voluntarily

withdrew from the selection process as well as applicants who were rejected as unfit. The combining of such diverse individuals into one "unaccepted" sample dilutes the expected differences between accepted and unaccepted applicants, further testing the sensativity of the test constructs. The top part of Table 14 shows the results for the t test of mean differences between the accepted and unaccepted groups. As hypothesized, the accepted sample performed significantly better on the test constructs than did the unaccepted sample.

As a further test, the unaccepted applicants were categorized by stage of non-acceptance. The hypothesis underlying this analysis is that persons rejected during the preliminary interview had more obvious and serious personality flaws to cause such a disqualification than persons who "passed" this stage. Similarly, persons rejected only after a complete background investigation/polygraph/final interview should be psychologically more suited for law enforcement than persons who failed to return their background investigation forms (two-thirds of this category), who withdrew after negative data was uncovered by the investigator, or who withdrew for other reasons. Results for testing this hypothesis are also shown in Table 14. In all cases, for each test construct, mean scores increased as the applicant's "suitability" increased.

TABLE 14

t TEST COMPARISON OF MEAN CONSTRUCT SCORE DIFFERENCES BETWEEN ACCEPTED AND UNACCEPTED APPLICANTS

		Mean Construct Test Scores				
		Sex Standardized		Sex x Race Standardized		
	N	Soc	Resp	Soc	Resp	Emot. Adj.
Accepted Applicants	51	51.94	50.04	.228	.283	.421
Unaccepted Applicants	354	49.50*	46.89***	.002	-.012**	-.038****
Accepted Applicants	51	51.94	50.04	.228	.283	.421
Unaccepted Applicants						
- rejected after full investigation	92	50.92	48.76	.087	.182	.124*
- withdrew after Preliminary Interview	117	50.06	47.09*	.57	-.034*	-.087***
- rejected during Preliminary Interview	145	48.15***	45.54****	-.097	-.118***	-.105****

t test significance of mean differences (compared to accepted applicants, one tailed test)
*differences statistically significant at .05 level
**differences statistically significant at .01 level
***differences statistically significant at .005 level
****differences statistically significant at .001 level

CONTINUED

1 OF 5

Obviously, these results do not prove that the test constructs are job related. They do, however, lend support to the position that the constructs are measuring important underlying job dimensions.

E. COMPARISON OF UNACCEPTED APPLICANTS AND CURRENT HPD POLICE OFFICERS

Following from the above, another useful comparison with implications for the job relatedness of the test constructs is to compare mean test scores of current HPD police officers and unaccepted applicants. Mean scores for officers and unaccepted applicants on the sex standardized socialization and responsibility constructs are presented in the top part of Table 15. Since only standardization based on national norms (i.e. sex) could be performed equally on both applicants and officers, the emotional adjustment construct and race/sex standardized So and Re scores are not included in Table 15. (For a discussion of the officer sample, see the next subsection in this chapter.)

Although the results are in the anticipated direction, mean differences were small and insignificant. Before this finding can be interpreted as not supporting the job relatedness of the test constructs, it is necessary to consider test taking "sets", or the motivations and/or roles assumed by those tested. Applicants were not aware of the experimental

TABLE 15

MEAN TEST CONSTRUCT SCORES FOR OFFICERS AND UNACCEPTED APPLICANTS

	N	Sex Standardized Mean Scores	
		Socialization	Responsibility
HPD Officers and Applicants			
HPD Officers	304	51.20	47.17
Unaccepted Applicants	354	49.50	56.89
HPD Officers and Police Norms			
HPD Officers	304	51.20	47.17
Other Policemen[1]	88	51.70	53.80

[1] As reported in the CPI Manual (Gough, 1969).

use of the tests and were purposely allowed to believe that the tests were a part of the screening process. Applicants, therefore, probably had a positive set while taking the tests and probably tried to "fake good" or create a very favorable impression. Administration to officers, on the other hand, stressed the importance of the experimental research, guaranteed that all test results would be kept confidential, and emphasized the need for honesty when completing the tests. Therefore, it is likely that officers did not "fake" their results or may have even "faked bad".

Some support for this possibility was found when HPD officer scores were compared to those for officers from another police department who took the CPI under different conditions. As the bottom of Table 15 indicates, officers scored lower than the other officer sample, Particularly on the responsibility scale. As a further check, it was hypothesized that unaccepted applicants scored higher on the "fake" scales than HPD officers. A comparison of three "fake" scales revealed that applicants did in fact score significantly higher on each of the three scales at the .001 level of confidence (i.e. if there were no real differences, such a mean score difference would only occur by chance once out of a thousand times). Mean scores for the CPI Good Impression (Gi) scale, the MMPI L (lie) scale and the MMPI K (correction) scale are reported below:

	Mean Scores		Standard Deviations	
	Officers	Unaccepted Applicants	Officers	Unaccepted Applicants
CPI - Gi	47.294	53.121	9.888	11.431
MMPI - K	14.089	15.679	4.563	4.708
MMPI - L	4.218	5.428	1.995	2.634

Because of these findings, an attempt was made to compare officers and unaccepted applicants by statistically equalizing their test taking sets. This procedure is analogous to that typically used with the MMPI when its scales are adjusted by K. The Gi scale was added to the MMPI K and L scales because it was created to distinguish between persons who purposely tried to create a favorable impression on the CPI, and it has been shown to correlate highly (.60) with the K scale (Gough, 1975).

Briefly, the statistical procedure (multiple regression) for equalizing test taking set began by regressing the unaccepted applicants' three fake scores against their responsibility and socialization construct scores. Once these regression formulas were obtained (see Appendix D), the contribution of the three "fake" scales was obvious. Next, the officers' mean scores for K, L, and Gi were substituted into the applicant regression equations. This procedure had the effect of converting the mean applicant set into that of the average officer, or lowering the unaccepted

applicants' construct scores relative to the officers' scores.

Results for this equalizing procedure indicate that officers are, in fact, significantly higher than unaccepted applicants at the .001 level of confidence for both responsibility and socialization, see Table 16. These findings represent a direct test of job relatedness and do support prior evidence justifying the use of Re and So as scales which underly important police officer job behavior characteristics.

F. CRITERION-RELATED OFFICER VALIDATION RESEARCH

The last link between job relatedness and the three test constructs was to compare them directly to the job performance of officers in the Houston Police Department. This section summarizes that comparison and a complete technical report describing methodology and results is presented in Appendix E.

Officer Performance Evaluation Scale: The Police Officer Performance Evaluation Scale designed for this research consisted of the 18 job dimensions identified by the Critical Incident Analysis (see Appendix B and discussion in Chapter 4). To maximize rating scale reliability and accuracy, behavior rating scales were developed utilizing methods similar to those used by Landy and Farr (1975).

TABLE 16

t TEST COMPARISON OF MEAN CONSTRUCT SCORE DIFFERENCES

BETWEEN OFFICERS AND UNACCEPTED APPLICANTS WHEN TEST TAKING SET IS CONTROLLED

	HPD Officers			Unaccepted Applicants		
	N	Mean	S.D.	N	Mean	S.D.
Socialization	304	51.200****	8.691	354	47.672	9.464
Responsibility	304	47.174****	8.694	354	43.914	10.167

****Significantly higher than Mean Scores for Unaccepted Applicants at the .001 level of confidence.

Each dimension was behaviorally anchored and contained a definition, together with various performance levels describing behavior ranging from outstanding to very poor. (See Appendix E for more details of the scale development, scoring and analysis and Appendix F for a copy of the performance evaluation scales.)

Sample: HPD officers currently in the Traffic and Patrol Divisions who were hired between 1971 and 1975 were defined as the research sample and were administered the same personality test battery which was taken by HPD job applicants (i.e. the CPI, LARK, six scales from the GZTS and four scales from the DFOS). Utilizing identical procedures as those used with applicants, test construct scores were developed for officers: sex standardized So and Re scores using national norms, sex/race standardized So and Re scores based on HPD applicant norms, and a sex/race standardized Emotional Adjustment score based on HPD applicant norms.

The officers also were evaluated by their Sergeants. All (Patrol and Traffic Division) Sergeants who supervised officers in the sample attended a training session during which the Police Officer Performance Evaluation Scale was explained. The Sergeants took the scales home, completed and returned them within a week. Sergeants had no knowledge of the psychological test results.

Results: To increase the probability that Sergeant ratings were valid evaluations of officer job performance, the first analysis compared how well two or more Sergeants agreed in their ratings of individual officers. Only those officers' whose Sergeants agreed fairly well in their rating were retained for further analysis. Officers with only one performance evaluation also were excluded from the sample. The final sample consisted of 116 officers with fairly reliable ratings. Scores for all Sergeants rating an indivi officer were then averaged, resulting in one set of 18 perfo mance evaluation scores for each officer.

The product-moment correlation coefficient was computed between the five test construct scores and the 18 performanc dimensions. Three statistical corrections to these correlations were necessary. First, neither the personality test nor the performance evaluations were perfectly reliable. The reliability coefficient was .72 for the So scores, .71 for the Re scores, .70 for the Emotional Adjustment score, and .80 for the performance ratings. Therefore, the original validity coefficients were corrected for unreliability of scores.

The second correction was for restriction of range in the test construct scores. For officers, these scores had a smaller range than scores for the original applicant sample.

The correction was applied to estimate what the correlation would have been if officers' test construct scores had the same range as applicant personality scores. Thirdly, to minimize any potential confounding between males and females (see Technical Report) sex was controlled by partialling sex out of the validity coefficients. Table 17 lists the final corrected correlations between the five test construct scores and the 18 job dimensions criteria.

Originally, it was hypothesized that So would be related primarily to the conscientiousness to duty and honesty job dimensions. Relationships with professional conduct, physical and emotional restraint, thoroughness in reporting and overall performance also were expected, but not as strongly. Table 17 shows that each of the hypothesized relationships was statistically significant. Also significant, were the correlations between So and ability to act independently, investigative thoroughness and job knowledge.

As a measure of responsibility and dependability, Re was expected to be related primarily to conscientiousness to duty, investigative thoroughness, thoroughness in reporting and overall effectiveness, and secondarily to judgment and decision making, professional conduct, ability to act independently, perceptual vigilance and honesty. Re was significantly related to thoroughness in reporting,

TABLE 17

FINAL CORRELATIONS[1] BETWEEN PERSONALITY SCORES AND OFFICER PERFORMANCE EVALUATION

	Socialization[2]		Responsibility[3]		Emotional Adjustment[4]
	Sex Stan.[5]	Sex/Race Stan.[6]	Sex Stan.	Sex/Race Stan.	Sex/Race Stan.
Conscientiousness to Duty	.203**	.212**	.230***	.262****	
Perceptual Vigilance				.172*	
Safety Consciousness					
Thoroughness in Reporting	.218***	.227***	.320****	.349****	
Concern for Others				.184**	.213***
Professional Conduct		.162*	.255****	.279****	.301****
Judgment and Decision Making	.276****	.277****	.134**	.208**	.162*
Physical and Emotional Restraint	.187**	.192**		.158*	.346**
Relationships with Peers					
Effectiveness in Emergency/Stressful Situations					
Willingness to Risk Personal Safety - Courage					
Ability to Act Independently	.213**	.127***	.224***	.238***	
Investigative Thoroughness	.196**	.204**	.241****	.266****	
Honesty	.189**	.202**	.172*	.207**	.187**
Physical Ability			-.174*	-.160*	-.219***
Interpersonal Effectiveness					.291****
Job Knowledge	.203**	.196**	.204**	.221***	
Overall Rating	.206**	.213**		.158*	

[1]Sex partialed out of Pearson product-moment correlation coefficients. Correlations were corrected for unreliability and restriction of range. Sample = 112.
[2]CPI Socialization/Delinquency Scale.
[3]CPI Responsibility Scale.
[4]Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Standardized by National Sex Norms.
[6]Standardized by HPD Applicant Sex and Race Norms,
*Significance level = .05.
**Significance level = .025.
***Significance level = .01.

professional conduct, conscientiousness to duty and investigative thoroughness. It also was related to concern for others, perceptual vigilance, physical and emotional restraint, judgment and decision making, job knowledge, ability to act independently, honesty, overall effectiveness and physical ability (negatively).

The emotional adjustment score was expected to be most highly related to physical and emotional restraint and less so to judgment and decision making, professional conduct and interpersonal effectiveness. These relationships were supported. Table 17 shows that emotional adjustment was related to physical and emotional restraint as well as judgment and decision making, professional conduct, concern for others, interpersonal skills, honesty and physical ability (negatively).

Thus, each of the three test constructs was significantly related to a number of important job performance dimensions. Officers with construct scores indicating high socialization, responsibility or emotional adjustment received significantly better performance evaluations than officers with personality scores indicating less socialization, responsibility or Emotional Adjustment.

G. SUMMARY AND CONCLUSIONS

The objective of the foregoing chapter was to review evidence

with respect to the test constructs used in the present study. In attempting to cover the issues with as much breadth as possible, various kinds of evidence were reviewed First, dimensions of police officer performance across many different departments were compared. Almost without exception, the three critical dimensions obtained in the present study were also found by other researchers. Thus, socialization, responsibility and emotional adjustment consistently appear to be important factors in the domain of police performance behaviors.

Second, the scales used to measure these three factors were presented and their validity research reviewed. The two CPI scales of So and Re were found to be valid representations of the socialization and responsibility constructs, respectively. Specifically, both criterion-related and construct validity studies have supported the use of CPI-So and Re as referents of important and pervasive personality characteristics. A similar treatment of emotional adjustment was presented. The measurement of this construct, however, included components of four personality inventories: the CPI, GZTS, DFOS and MMPI. The scales used from each of these inventories were found to be independent components of emotional stability, and the final sum highly representative of general emotional adjustment.

Third, information relative to these scales and police officer performance was presented. Studies that have used So, Re, and components of emotional adjustment generally supported their importance in performance effectiveness. In addition, a demonstration of the construct validity of these scales was performed. Normative data for various occupational and poorly adjusted groups was obtained for each of the major scales. The groups were then ranked from highest to lowest mean scale score. In all cases, the scales could differentiate normal occupationsl groups from poorly adjusted groups. Furthermore, police officer groups were found to be consistently higher on the scales than the normal population. It was concluded that the scales used to measure socialization, responsibility, and emotional adjustment have direct applicability to police officer settings.

The next three kinds of evidence analyzed the test constructs with respect to their job relatedness specifically for the Houston Police Department. A comparison of accepted versus not accepted applicants revealed significant differences on each test construct. It was also found that applicants dropped early in the selection process had significantly lower test construct scores than applicants dropped later. Current HPD officers were also compared with the applicant groups. After corrections were made for test taking "set", current officers were found to be significantly higher on

the test constructs than non-accepted applicants.

Finally, test construct scores for HPD officers were investigated with respect to ratings of 18 behaviorably anchored performance dimensions. In this criterion related validity study, it was found that the officers' scores on the test constructs were significantly related to appropriate job performance ratings.

Thus, So, Re, and emotional adjustment were directly related to important aspects of police performance in the Houston Police Department.

The evidence summarized above, although not without limitati: provides a step-by-step linkage of police officer job behaviors to the test constructs selected to measure socializatio: responsibility, and emotional adjustment. Based on a variet: of content and criterion validity research which included various occupational groups, police officers in general and HPD officers in particular, the job-test constructs have been demonstrated to have much more than tangential validity. Therefore, the link has been established; the test construct scales are job related and have the necessary support to serve as criteria in the validation of applicant background histories.

CHAPTER 6

RESEARCH LIMITATIONS AFFECTING THE INTERPRETATION OF RESULTS

There are a number of restrictions on this type of research that the reader must be continually cognizant of to properly interpret the findings. The most important of these limitations are discussed in the following sections of this chapter.

Specificity of Applicant Data

The purpose of the Preliminary Interview Checklist (P.I.C.), the primary source material for this research, was to standardize the collection of applicant background data and to eliminate interviewer subjectivity in evaluating applicant information. Thus, the majority of P.I.C. questions were objective and only required the interviewer to note the applicant's quantitative response. The P.I.C. utilized over 150 pertinent questions to allow each background topic area (e.g., educational and employment histories) to be studied item by item (i.e., high school grades, number of times disciplined during high school, etc.).

The most obvious advantage for computing specific item validity coefficients is the potential identification of relevant items and question priorities. For example, the findings for drug usage could show a significant relationship of the job performance constructs with the use of hallucinogens,

but might show only an insignificant relationship to marijuana usage. Since exclusion for marijuana usage was one of the most frequent reasons for rejecting applicants, knowledge of the effectiveness of such a selector is necessary information for the Department in its efforts to improve its selection efficiency. For this reason, the P.I.C. format and the analytical procedures selected stress the evaluation of individual items.

Item by item analysis, unfortunately, has several serious drawbacks, with the first being the necessity for studying each item in a vacuum. Thus, each applicant who reported an arrest for a felony received the same negative code. Mitigating circumstances are excluded; the disposal of the case is eliminated; the severity of such arrest is unknown except for the broad category of misdemeanor versus felony; how long ago the event took place is not known except for whether it occurred as a juvenile or an adult; and the changes that the individual has since undergone are not considered. This same limitation applies to most items throughout the P.I.C.

A second drawback is the "non-retroactiveness" of codes. That is, the applicant who reported a conviction for a serious felony while an adult would not receive negative codes for a less serious juvenile felony or misdemeanor conviction item, unless convicted separately of each.

To partially compensate for such drawbacks, special combinations of items were created when deemed appropriate. For example, in the criminal record section additional variables were developed, such as total number of: arrests, convictions, juvenile arrests, felony arrests, and several others.

As an additional compensator, a regression equation was computed by regressing items within each topic area against each job construct. The purpose for this regression was not to develop a prediction formula, but to roughly estimate what level of predictability might occur if the relevant topic areas were considered as a whole. The derived multiple correlation coefficient (R), then, should be the best estimate of the validity of each broad topic area (i.e., one's criminal record, financial stability, employment stability, and so on). Since age is a very important moderator for certain topics, some of the regression equations were computed both with and without applicant age being taken into consideration.

Although a multiple correlation has the advantage of maximizing the data "fit", it still suffers from the limitations which follow; therefore, it should be thought of as a conservative estimate of the true predictor-construct relationship.

Loss of Relevant Negative Applicant Data

Another disadvantage of the highly structured interview and

coding procedures was the inability to retain and analyze some very significant data which was not specifically requested during the interview. Typically, there are many time constraints on interviews, and interview response data varies greatly from individual to individual. It is virtually impossible to plan for all contingencies and to code all responses that occur during an interview.

As an illustration of the type of information not retained, consider the criminality item codes. The P,I,C. only requested information from applicants as to the number of times they were arrested and convicted for committing misdemeanor and/or felony offenses. There were, however, many applicants who admitted that they had committed some type of crime without being apprehended. Some of these "felony arrest-free" coded applicants were drug users and others committed serious felonies such as arson and armed robbery.

Due to the uniqueness of most non-codable responses, new codes were not developed at the time of data analysis. Therefore, relevant data were lost for many items, and the obtained validity coefficients and multiple correlations for each topic are probably underestimates of the "true" relationships.

Self Report Data

Applicant responses during the preliminary interview are

susceptable to distortions, outright lies and misleading responses. A recent study by Cascio (1975) investigated the relationship between reported and verified responses to 17 biographical items for 112 current police officers. The biographical items were basically factual, easily verifiable and consisted of current marital status, times married, age at first marriage, number of dependents, number of siblings, number of full time jobs, and similar questions. Although most reliability coefficients were quite high, [median correlation (r) of .94], two were lower than .50: age at first marriage (r=.41) and type of high school attended (r=.46). Since this concurrent research was conducted on a sample of presently employed police officers under non-threatening conditions, and since the items selected were basically factual and easy to verify, one can only speculate on the reliabilities that would be obtained with applicant samples for subjective and difficult to verify items such as: number of thefts, drug usage, homosexual and abnormal sexual activities, military reenlistment codes, times fired by an employer, probable employer reference ratings, current financial condition, drinking habits, and so on.

As a check on the validity of the applicant self report data in this research, preliminary interview responses of those applicants who proceeded to the background investigation stage were compared to the facts later obtained about them.

Some number of these post-preliminary interview applicants completed the entire investigation process consisting of a records check (traffic, criminal, military and educational records); a background investigation involving personal interviews with relatives, employers, coworkers, neighbors and friends; a polygraph examination; a medical examination; and a final interview. However, many applicants did not complete the entire process and were rejected at whatever point in the process sufficient disqualifying information became available. A specific breakdown by stage completed was not available for the applicant sample, but it is known that some were rejected solely on the basis of later obtained criminal record files and traffic records (no further investigation was performed), on confirmed disqualifying polygraph admissions for out-of-town applicants (no background investigation was performed), and on initial background investigation data of a disqualifying nature (investigation immediately ceased and background history was not complete).

The sample size for this special analysis was 151 applicants who successfully passed the preliminary interview and agility test phases of the selection process, who had received some type of background check, and who had either been accepted or rejected because of the additional findings. Included in the sample of 151 were 43 applicants who were accepted by the Department. (Those applicants still active in the selection

process were excluded from the analysis.) Based on the followup information, it was estimated that at least 45 percent of the applicants had seriously and purposely distorted their responses, typically on more than one preliminary interview topic. Examples of serious distortions include: omission of all short tenure jobs; theft from prisoners while a police officer employed by another law enforcement agency; being fired from another police department for beating up spouse; having sex with a five year old next door neighbor; commission of armed robbery; history of alcoholism; extreme drug usage; extreme prejudice toward minorities; and so on. Of the remaining applicants, 36 percent were judged to have committed minor distortions. This category included minor purposeful discrepancies (e.g., one instance of abnormal sexuality; additional minor thefts; and apparently accidental misinformation for topics such as traffic tickets, criminality of relatives, minor theft discrepancies, etc.).

Therefore, only 19 percent of the applicant sample provided completely valid information during the preliminary interview. On the other hand, multiple gross distortions were found in the responses of nearly one half of the applicants, a startling magnitude when one realizes that this number certainly would be higher if each subject had received a thorough background investigation.

The next question of interest was to identify in which topic areas the distortions occurred. Table 18 shows the frequency of distortions by topic areas. The table *DOES NOT* indicate frequency of negative data, but only indicates the degree to which an applicant's behaviors were significantly more negative than indicated by his/her initial responses. In addition to presenting the percent change in negative data, Table 18 also shows frequency of occurrence where the degree of negativity significantly increased, where response difference may have been accidental, and where the polygraph examination resulted in strongly suspected but unconfirmed negatives of a disqualifying nature.

As might be expected, there were substantial increases in negative data for questions relating to employment (primarily for predicted reference ratings and number of times fired or asked to resign), theft, drug usage, sexual abnormalities, family instability, predicted personal references relating to prejudice, financial stability, drinking habits and emotional stability. Again, the obtained percentages in Table 18 are conservative, since additional unreliability would no doubt be found if full investigation had been completed on everyone.

The major impact of this unreliability will be to reduce the magnitude of the obtained correlations between the criteria constructs and the applicant background predictors. Validity coefficient attenuation should be especially severe for items

in such socially sensitive topics as employment history, drug usage, theft, sexual abnormalities, family stability and immorality, credit maturity, and personal references.

A proper correction for attenuation would include both the tendency for applicants to falsify their responses and the proportion of negative responses initially occurring. In other words, the corrected magnitude of validity coefficients will increase as the incidence of reported negative responses becomes small. Thus, for example, the correction would be greater for applicants convicted of a felony (very small percentages) than for applicants admitting some type of drug usage, assuming other considerations are equal.

To further clarify this concept, a Falsification Correction Table was prepared. When estimating the falsification correction factor, all one needs to know are the frequency of occurrance of negative data during the preliminary interview (provided later by topic item) and an estimate of applicant reliability by item (Table 18 provides data for such estimates). Next, one refers to Table 19 and determines the percent increase appropriate for each obtained validity coefficient; an example follows:

> Assume that the correlation (r) between applicants' predictions of their employment reference ratings and the responsibility construct is r = .20. Also assume that

only 5 percent of applicants report unfavorable references during the preliminary interview. Table 18 indicates that over 20 percent of applicant responses on this item should be increased to negative (an estimate which assumes any corrected response data would be offset by the failure to fully investigate all applicants). Applying these numbers to the Falsification Correction Table (Table 19), the correlation of r = .20 should be increased by 56.5 percent, or the validity coefficient corrected for predictor unreliability would be r = .313. Similarly, a validity coefficient or r = .15 would increase to r = .234, and a coefficient of r = .10 would increase to r = .157. The statistical derivation of Table 19 is presented in Appendix G.

Restriction of Range on Applicant Data

In addition to applicants minimizing their negative characteristics, there is a restriction of range problem associated with the results of this validation study. Partly due to inclinations and interests and partly to one's evaluation of his/her prospects for employment, the applicant sample is probably not random; some self screening appears to occur because of HPD's known job requirements. To review, applicants begin their screening process at the Houston Civil Service Department where they are provided a copy of HPD's Class A police officer requirements. These requirements clearly

TABLE 18

COMPARISON OF APPLICANT PRELIMINARY INTERVIEW RESPONSE DATA WITH INFORMATION OBTAINED DURING THE RECORDS CHECK, BACKGROUND INVESTIGATION, POLYGRAPH EXAMINATION AND/OR THE FINAL INTERVIEW

(N = 151)

	Percent Increase for any Negative Data	Frequency of Additional Negative Data		
		Significantly More Negative	Possibly Accidental	Unconfirmed Polygraph
Employment Data	34%	45	5	1
- Reference Ratings Only	22%	32	2	-
- Behaviors (Number of Times Fired, Tenures)	18%	23	3	1
Theft	32%	32	9	7
Drug Usage	30%	34	3	9
Sexual Abnormalities	26%	32	1	6
- Homosexual Only	19%	22	-	6
- Other	13%	19	1	-
Family Stability	17%	25	-	-
- Cheat on Spouse	9%	14	-	-
- Beat up Spouse	5%	8	-	-
- Miscellaneous	3%	3	-	-
Personal Reference Ratings	15%	23	-	-
Credit/Financial Condition	15%	20	2	-
Emotional Adjustment	10%	14	1	-
Drinking Habits/D.W.I.	10%	14	-	1
Traffic Tickets/Driving Record	8%	11	1	-
Criminal Records	6%	6	4	-
Medical History	5%	7	-	-
Education/Degree/Grades/Etc.	3%	5	-	-
Military Discharge/Adaptation	2%	3	-	-

TABLE 19

FALSIFICATION CORRECTION TABLE

MULTIPLICATION FACTORS TO INCREASE VALIDITY COEFFICIENTS DUE TO UNRELIABLE SELF REPORT RESPONSE DATA

Percent Applicants Providing Negative Responses during the Preliminary Interview	Assumed Percentage of Applicants not Providing Negative Data (see Table for rough estimates)						
	5%	10%	15%	20%	25%	30%	35%
2.5%	1.327	1.528	1.685	1.821	1.946	2.064	2.179
5.0%	1.197	1.340	1.459	1.565	1.664	1.759	1.852
7.5%	1.142	1.255	1.353	1.443	1.528	1.610	1.691
10.0%	1.111	1.205	1.289	1.368	1.443	1.516	1.590
12.5%	1.092	1.172	1.246	1.316	1.384	1.450	1.518
15.0%	1.078	1.149	1.215	1.278	1.340	1.401	1.464
17.5%	1.068	1.131	1.190	1.248	1.306	1.363	1.421
20.0%	1.060	1.117	1.171	1.225	1.278	1.331	1.386
22.5%	1.054	1.106	1.156	1.205	1.255	1.306	1.357
25.0%	1.049	1.096	1.143	1.189	1.236	1.284	1.333
27.5%	1.045	1.089	1.132	1.175	1.220	1.265	1.311
30.0%	1.041	1.082	1.123	1.164	1.205	1.248	1.293
32.5%	1.038	1.076	1.115	1.153	1.193	1.234	1.277

state that applicants must have a high school degree or equivalent; must have a good driving record and must not have received more than two moving traffic law citations within the past twelve months; must not have been convicted of a felony offense, D.W.I., or any crime involving moral turpitude; must not have been convicted in any court martial higher than summary and must have an Honorable Discharge if a veteran; must not have any emotional or temperament problems; must have a stable family and employment history; and must have a "character and reputation ... of the highest order as established by the background investigation ..." (see Appendix H for a copy of HPD Officer Applicant Requirements).

Applicants who obviously fail to satisfy such standards probably do not waste their time going to the Department's recruiting center for a personal interview. Those who do so anyway account for a large portion of those who purposely lie about their backgrounds. Although there are statistical formulas to correct validity coefficients for this type of restriction, the problem is too complex to make realistic adjustments feasible.

Therefore, reported validity coefficients are not corrected for restriction of range of applicant response data. The effect of this research inadequacy will be to underestimate the true relationship of the underlying job behavioral constructs with the background characteristics of an unrestricted

total applicant population.

As examples of the impact of restriction of range (or self-selection) on the findings, population data for educational attainment and felony convictions were obtained and are cited in order to describe the restriction of range problem. Whereas 89.8 percent of the HPD applicants had graduated from high school, only an estimated 77 percent of the Texas area population (aged 20 to 29) had graduated from high school in 1976. This discrepancy is significant and would result in an increase in validity coefficients for educational attainment of over 35 percent (38 percent for $r = .10$ and 36 percent for $r = .20$).

As for felony record, only one-half of one percent (0.5 percent of the HPD applicants reported any felony convictions. However, it was determined that about 1.2 percent of Houston Standard Metropolitan Statistical Area (SMSH) adults aged 17 to 35 have been incarcerated for felony convictions by the Texas Department of Corrections. Although this population's felony conviction statistic is higher than obtained for the sample, it is too low because it does not account for Houston area inmates in out-of-state prisons. Furthermore, the statist: does not include persons convicted but not imprisoned due to probation or other reasons, nor does it include persons who were guilty and found innocent or who were never apprehended.

These examples of range restriction are only presented to

demonstrate that a restriction of applicant characteristics has occurred on many variables and that a statistical correction, if possible to calculate, might result in a substantial increase to obtained validity coefficients. Because of the difficulties involved in obtaining appropriate population statistics, restriction of range corrections were not formally applied to the data in this study. Therefore, the reader must realize that many reported applicant background data-test construct correlations in fact are substantially higher due to the applicant self-selection phenomena.

Selection of Job Performance Constructs

Many different personality constructs can be justified for use in this study. Even though the job analysis identified 11 major job dimensions or personality constructs, this research only uses three of them - socialization, responsibility and emotional adjustment. While these appear to be the three most appropriate constructs for the entire study, they are not necessarily appropriate for each preliminary interview topic or item. As an example, an applicant's traffic ticket and accident history might show some relationship to his/her scores on the selected constructs, but it is possible that the proper job related construct for traffic record items is a construct related to the applicant's "caution" or "safety mindedness". Another example of this type of limitation is that high school and college grades should be related more to

an intelligence construct than to sense of responsibility, etc. Or, reference data might be most appropriate for comparison with such constructs as initiative, leadership skills, interpersonal effectiveness, etc.

The unavailability of certain desired constructs and the complexities that would be required to switch from construct to construct depending on P.I.C. item required the use of a small number of constructs. The three that were selected appeared to have the broadest relevancy, so it was decided to base all research conclusions on the constructs of socialization, responsibility and emotional adjustment. On occasion, therefore, the obtained validities will seriously understate the true relationships between the biographical item and appropriate job performance constructs.

Validity of Constructs

Assume that the underlying constructs of responsibility, socialization and emotional adjustment are perfectly appropriate for each item. Even if true, the validity of the psychological test scales create another limitation on the potential magnitude of the research findings. That is, the CPI Responsibility (Re) scale is not a perfect scale to measure an applicant's sense of responsibility. There are "responsible" applicants who score below average on Re and vice versa. Thus, even when the measured constructs are appropriate, what

is measured is close to responsibility, but not necessarily a perfect measure of responsibility. Although this could severely limit the expected size of the validity coefficients in this research, a statistical correction for the problem is not appropriate.

Scale Unreliability

Even if the test scales were perfect measures of appropriate underlying performance constructs, the score that an applicant received on a certain day under the prevailing conditions might vary from his/her "true score". ("True scores" of applicants are constant, but "obtained scores" tend to vary to some extent.) Since validity coefficients cannot exceed the square root of the reliability coefficient, it is accepted practice to correct for attenuation due to unreliability by the following formula:

$$\rho_{xy} = r_{xy}/\sqrt{r_{yy}}$$

where ρ_{xy} = the corrected estimate of the validity coefficient, r_{xy} = the uncorrected validity coefficient and r_{yy} = the criterion (test) reliability coefficient.

Since the "true construct score" is intended to represent a lasting quality or long-term underlying construct, the type of reliability coefficient selected should minimize moment to moment variations. Thus, test-retest correlations or coefficients of stability should be used in the correction

formula. Although one would want stability over a number of years, test-retest coefficients for one year were selected for this research (see Appendix I for more details). One year reliability coefficients are conservative corrections, only covering the approximate time period from date of application through completion of the probationary period.

Assumptions of Linearity

For a variety of reasons, the validity coefficients always were computed by using Pearson product-moment correlation coefficient (r) procedures. As noted by Guilford (1956) and others, the Pearson r is not entirely appropriate unless both variables are measured on continuous metric scales, and unless the regression is linear. These points require some discussion.

Although none of the application blank items is strictly continuous, most had sufficient discrete categories so that the assumption of continuity represents only a slight distortion. However, the assumption of linear regression is potentially subject to severe violation.

As an example, consider the relationship of the socialization construct to number of felony convictions. A linear hypothesis (in the logical direction) requires that an increase of one conviction be accompanied by a specific decrease in socialization score. In other words, the assumption is that the

difference between no convictions and one conviction is the same as the difference between four convictions and five convictions. In reality, however, it is probable that there is a considerably greater difference in mean socialization score between zero and one conviction than between four and five convictions.

Situations similar to the example described above can be expected to exist whenever the probable effect on the construct of going from no negative data to some negative data is greater than the effect of going from a lot of negative data to still more negative data. When this is the case, it is probable that a transformation of the independent variable would be a better predictor of the construct than the variable itself.

To test this hypothesis, several "criminality" background items which seemed to meet the criterion described above were selected and transformed in two ways: a logarithmic transformation ($X_L = \log(1 + X)$ and an inverse transformation $[X_I = 1/(1 + X)]$. In both cases, $(1 + X)$ rather than X was used to avoid the difficulties caused when $X = 0$. Both of these transformations have the property of successfully reducing the scale interval as X increases linearly, with the inverse transformation giving a more exaggerated reduction relative to the logarithmic transformation. Both transformed variables were correlated with the constructs. A comparison

of the correlations obtained for the constructs is shown in Table 20 for selected predictors of a "criminality" nature

In all cases, the correlations with the socialization construct were highest for the inverse transformation. In fact, when none of the predictors had shown a significant relationship with the construct, both the logarithmic and inverse transformations showed significant correlations with the construct for all variables except "number of times purchased stolen goods". Both the actual magnitude and significance level of the correlation coefficients with the responsibility construct likewise increased with the transformations for all variables except "number of thefts.". The transformations did not have a particularly beneficial effect on the correlations between the variables and emotional stability.

It was decided that the inverse transformation or even a more exaggerated type of transformation would be appropriate with certain types of applicant data. Regardless of which transformation is most appropriate, it is obvious that the non-linearity of a scale can severely affect the obtained correlations, particularly when these correlations are later adjusted for unreliability and/or restriction of range.

However, the investigators felt strongly that the adoption of various non-linear hypotheses for variables is not appropriate unless there is excellent *a priori* justification for a particular non-linear hypothesis. This would almost always

TABLE 20

CORRELATIONS OF UNTRANSFORMED AND TRANSFORMED PREDICTORS WITH CONSTRUCTS

	Standardized by Sex and Race								
	Socialization			Responsibility			Emotional Stability		
"Criminality" Items	X^1	$X_L{}^2$	$X_I{}^3$	X^1	$X_L{}^2$	$X_I{}^3$	X^1	$X_L{}^2$	$X_I{}^3$
Number of Thefts	.04	.11**	.14****	.15****	.15****	.14****	.16****	.15***	.11**
Value of Items Stolen	.06	.12***	.14****	.06	.15****	.15****	.04	.11**	.09*
Times Purchased Stolen Goods	.01	.07	.08	.09*	.11**	.10**	.01	.05	.05
Value of Stolen Good Purchases	.03	.11**	.11**	.09*	.10**	.09*	.01	.07	.08

[1]Correlations between construct and variable.
[2]Correlations between construct and log (1 + variable).
[3]Correlations between construct and 1/(1 + variable). (Sign of correlation coefficient has been reversed to account for reversal of scale direction.)
*Significantly different from 0 ($p < .05$).
**Significantly different from 0 ($p < .025$).
***Significantly different from 0 ($p < .01$).
****Significantly different from 0 ($p < .005$).

not be the case, so the researchers decided to avoid a melange of different models and concentrated their efforts on the calculation, analysis and presentation of linear correlation coefficients, remaining cognizant of the fact that better associative methods exist in some cases.

Cultural Effects

The hypotheses under consideration are that several underlying constructs are related to a variety of predictors. Typically, it is assumed that constructs are equally appropriate for all subjects regardless of race or sex. Since normative data differs by sex for the CPI test scales, the personality constructs were standardized by male and female norms. This procedure should completely control sex bias in the constructs.

Should racial effects also be controlled? On the one hand the answer is no. If racial minorities have a greater incidence of felony convictions and other types of negative data, then their socialization scores should be lower than for Whites. The negation of this effect might eliminate significant relationships for topics such as criminal history, financial instability, immoral behaviors and other areas where frequency of occurrence tends to be higher for minority applicants. However, if minority applicants tend to have lower personality test results purely because of environmental-cultural differences, and their cultural backgrounds independently tend to cause more minority convictions, then the validity coefficie

could be spuriously high.

To solve this dilemma, a decision was made to study both possibilities by analyzing the data under two conditions: 1) use of national sex-standardized scores for responsibility and socialization; and 2) use of HPD applicant sex and race standardized scores for responsibility, socialization and the emotional adjustment factor. This second standardization procedure has the effect of making the average White male applicant as responsible, socialized and emotionally adjusted as the average Black male, Hispanic male and female applicant. (See Appendix C for details.)

By comparing resultant correlations for both standardization procedures, it is quite easy to determine the extent of any racial impact. That is, if the validity coefficients for the sex/race applicant standardizations are equal to or higher than the sex only standardized coefficients, the possibilities of an adverse racial effect would be minimal. If the reverse occurs, then the adverse racial effect would necessitate a differential validation of the biographical items to assure predictive validity for minorities.

The Null Hypothesis

To determine the importance of any predictor-construct relationship the researchers applied a Null Hypothesis which assumed that there were *NO* relationships between any applicant predictors and job behavior constructs. To reject the Null

Hypothesis, therefore, the obtained relationships must be statistically significant at least at the .05 level of confide This .05 level means that the validity coefficient would have reached such a magnitude less than five times out of 100 by chance if the Null Hypothesis were true. (Similarly, a .005 significance level would mean that the chances were less than five out of 1,000 of observing as high a validity coefficient by chance, given the Null Hypothesis.)

In other words, an adversary position is assumed: there are no relationships between applicant data predictors and criteric constructs unless evidence is obtained to indicate otherwise at a probability of .95 or greater (.05 level of confidence). Any item attaining statistical significance, therefore, justifies rejection of the assumption of no relationship between that item and a relevant criterion. Items not attaining statistical significance may or may not be related to the construct; that is, they may only have not attained a statistical correlation of the magnitude necessary to refute the hypothesis that no relationship exists.

Conclusions

Two of the research limitations (item specificity and criterion unreliability) were compensated for by statistical procedures. Criterion test scales were corrected for unreliability using a standard formula and topic items were combined and analyzed by linear regression equations. Nevertheless, when evaluating

item validity coefficients, the reader should remember that each individual item still is being studied in a vacuum, often excluding behavioral severity, mitigating circumstances and moderator variables such as age and background.

Only two major considerations arise that might cause excessively high validity coefficients. The first of these is the possibility that the interviewing officer somehow systematically miscoded applicant responses. This possibility is remote and probably irrelevant, since the personality tests were kept confidential and not computer scored until after all applicant data was collected and coded. The second consideration involves the possibility that any obtained validities might only reflect sex or race differences. This possibility was controlled by separately standardizing the test construct scales by applicant race and sex.

The remaining research constraints were not eliminated and will have a major limiting effect on the size of the obtained correlations. These constraints include the loss of significant uncoded negative data (i.e., arson, drug pushing, etc.), the restriction of range affecting the applicant sample (few persons with criminal records bother to apply), the failure to use other relevant job performance constructs (i.e., safety consciousness, interpersonal effectiveness), the imperfect validity of the construct scales, the possibilities of non-linear relationships, and the use of self report data which

may have a severe reliability problem (only 19 percent of a test sample were found to have given completely accurate preliminary interview responses).

These remaining restraints can only serve to minimize the validity coefficients and reduce the chances of obtaining statistically significant and meaningful results. There is little doubt that the elimination of these restrictions would significantly increase the size of the obtained validity coefficients, in many cases by a multiple greater than two, in effect doubling the indicated degree of relationship. Typically, one would expect criterion validity coefficients be of a magnitude of r = .25 to 4 = .35 to have practical meaning. Because of the large sample size involved and because a correction factor would be substantial, any item that attains statistical significance at the .05 level of confidence should have meaning and practical utility for selecting police officers. This means that correlations in the .10 to .25 range could very well be equivalent to traditional research correlations of .20 to .45 or higher.

It must also be remembered that the Null Hypothesis assumes no relationship and only validity coefficients significant at the.05 level of confidence are reported in the results sections of this volume. Due to the restrictions placed on correlational size, the reader also should consider each item's significance level and the number of related items that also attain

significance. That is, if five or more criminality items (out of nine) are statistically significant, then logical confidence in the meaningfulness and size of the true relationship between criminal behaviors and job performance constructs should increase. Findings of significant relationships for related items are important to justify a topic's overall meaningfulness and utility in selection.

CHAPTER 7

RELATIONSHIPS BETWEEN JOB PERFORMANCE CONSTRUCTS AND APPLICANT BACKGROUND DATA

In order for the reader to evaluate the appropriateness of the logic underlying this research design, the first results presented will focus on the criminal records of applicants, which is the single most obvious topic area for use in selecting law enforcement officers. Naturally one should expect at least some of the applicants' criminal background data to be significantly related to each of the underlying job performance constructs and especially to the socialization construct as measured by the CPI Socialization (So) scale. In fact, as compared to the other applicant background topics, criminal behaviors should rank among the highest variables when correlated with the socialization construct. Therefore, if criminal background items are not significantly related to socialization, serious doubts would be cast upon the utility of this scale in the evaluation of other background characteristics. However, there should be strong confidence in the design and research conclusions if: 1) the constructs are significantly related to criminal record items, 2) socialization has higher correlations with respective criminal record items than either the responsibility or emotional stability constructs and 3) the validity coefficients associated with criminal records are among the highest for the So construct.

Results for each topic area will be presented and discussed separately. Presentation will consist of the following sequence: 1) listing of each Preliminary Interview Checklist (P.I.C.) item and its descriptive statistics, 2) the logic used by the researchers to evaluate the relevancy of each item for the three constructs and whether it has sufficient variation for inclusion in subsequent item analyses, 3) description of statistically significant (at the .05 level of confidence) item-construct correlations, corrected for construct unreliability (uncorrected correlations can be determined from data presented in Appendix I, 4) discussion and description of any special item combinations formed to increase variance or to partially compensate for probable item interactions and moderator effect, 5) multiple regression analysis for relevant topic items (with or without age as a moderator) and 6) conclusions and recommendations relative to justification of the topic area for use in selection by the Houston Police Department.

Civilian Criminal Record

Distribution statistics are presented in Table 21 for each admitted civilian arrest and conviction P.I.C. item. As expected, there appears to have been a significant restriction of range in the applicant sample, since very few applicants reported any type of arrest or conviction. In particular, there were virtually no applicants (2.5 percent or less) reporting any felony arrests or convictions as either an adult or juvenile. (Although the

TABLE 21

DISTRIBUTION STATISTICS FOR CIVILIAN CRIMINAL RECORD ITEMS

ORIGINAL CRIMINAL RECORD ITEMS	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
Misdemeanor Items				
1. Number of Juvenile Arrests	405	0.126	.412	10.1%
2. Number of Juvenile Convictions	401	0.052	.291	3.7%
3. Number of Adult Arrests	403	0.199	.587	14.1%
4. Number of Adult Convictions	403	0.109	.409	8.4%
Felony Items				
5. Number of Juvenile Arrests	405	0.010	.100	1.0%
6. Number of Juvenile Convictions	403	0.002	.045	0.2%
7. Number of Adult Arrests	403	0.025	.155	2.5%
8. Number of Adult Convictions	402	0.005	.071	0.5%
Immediate Family Items				
9. Number of Misdemeanor Arrests	379	0.325	.819	22.2%
10. Number of Misdemeanor Convictions	371	0.221	.686	15.9%
11. Number of Felony Arrests	388	0.157	.507	12.6%
12. Number of Felony Convictions	381	0.071	.277	6.6%
SPECIAL COMBINATIONS				
13. Sum of all Juvenile Arrests	405	0.136	.421	
14. Sum of all Juvenile Convictions	400	0.055	.295	
15. Sum of all Adult Arrests	403	0.223	.619	
16. Sum of all Adult Convictions	402	0.114	.414	
17. Sum of all Felony Arrests	403	0.035	.183	
18. Sum of all Misdemeanor Arrests	403	0.323	.709	
19. Sum of all Misdemeanor Convictions	400	0.163	.497	
20. Sum of all Arrests	403	0.357	.761	
21. Sum of all Convictions	398	0.171	.503	

low proportion of felony convictions would justify exclusion from analysis, the topic area is of sufficient importance to warrant further examination.)

To partially compensate for the low incidences of reported criminal behavior, special variable combinations were created: any type of juvenile arrests/convictions; any type of adult arrests/convictions; all juvenile and adult misdemeanor arrests/convictions; all adult and juvenile felony arrests; all arrests; and all convictions.

As Table 22 shows, three out of four validity coefficients for admitted misdemeanor arrests and convictions (the first category in the table) are significantly related to socialization. (All significance data is reported for a one-tailed test since directional hypotheses were established for each item, and since inverse relationships would be meaningless.) The reported relationships would be higher if corrections were made for self report unreliability and the other research limitations.

The next category in Table 22 shows the high restricted felony items. In spite of the fact that negative data was obtained on so few applicants, several of these validity coefficients reached statistical significance at the .05 level of confidence. Corrections for falsification would again increase these correlations significantly. Validity coefficients for arrest records of the applicant's immediate family were low, but significant for the

TABLE 22

VALIDITY COEFFICIENTS[1] FOR CIVILIAN CRIMINAL RECORD ITEMS WITH JOB BEHAVIOR CONSTRUCTS

ORIGINAL CRIMINAL RECORD ITEMS	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
Misdemeanor Items					
1. Number of Juvenile Arrests	.190****	-	.210****	-	-
2. Number of Juvenile Convictions	.128****	.110**	.148****	.122***	-
3. Number of Adult Arrests	.119***	-	.117***	-	.096*
4. Number of Adult Convictions	-	-	-	-	.105*
Felony Items					
5. Number of Juvenile Arrests	.083*	.151****	-	.160****	.102**
6. Number of Juvenile Convictions	-	-	-	.083*	-
7. Number of Adult Arrests	-	-	-	-	-
8. Number of Adult Convictions	-	-	-	-	-
Immediate Family Items					
9. Number of Misdemeanor Arrests	-	-	-	-	-
10. Number of Misdemeanor Convictions	-	-	-	-	-
11. Number of Felony Arrests	.107**	-	.097*	-	-
12. Number of Felony Convictions	-	-	-	-	-
SPECIAL COMBINATIONS					
13. Sum of all Juvenile Arrests	.205****	.081*	.224***	.096**	-
14. Sum of all Juvenile Convictions	.126***	.122***	.148****	.136***	-
15. Sum of all Adult Arrests	.115**	-	.118***	-	.109**
16. Sum of all Adult Convictions	-	-	-	-	.115**
17. Sum of all Felony Arrests	-	.107**	-	.117***	-
18. Sum of all Misdemeanor Arrests	.211****	-	.220****	-	.109**
19. Sum of all Misdemeanor Convictions	.107**	.102**	.117***	.096*	-
20. Sum of all Arrests	.209****	-	.220****	-	.103**
21. Sum of all Convictions	.103**	.101**	.112**	.095*	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
22. Items 1 through 8	R = .256****	.196***	.267****	.193****	.102**
23. Items 1 through 8 plus Age	R = .271****	.362****	.285****	.359****	.102**

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

felony arrest category.

Results for the special variable combinations are presented in the fourth category in Table 22. Clearly, most of these variables are related to the socialization construct, with seven out of nine being significant at the .05 level of confidence. Thus, the applicants' admitted arrest and conviction records are related to important job performance constructs and should be considered carefully when evaluating applicants.

A recent study, reported at the time of this writing, indicates that a rather severe restriction of range might have occurred. Dr. Gary Schwartz for the Illinois Department of Mental Health's Institute for Juvenile Research projected that one-third of all Illinois juveniles had committed at least one offense which would be classified as a felony if committed by an adult. For comparison purposes, our sample includes less than 5 percent of juveniles and adults who admitted being arrested or convicted for a felony offense.

Additional support for the hypothesized effect of restriction in range is evidenced by the findings that arrest items were more significant than conviction items; that misdemeanor items were more significant than the lower variance felony items; and that juvenile criminal behaviors were more significant than adult criminal behaviors. If the sample included a greater number of applicants with felony arrests and convictions, the obtained

correlations would no doubt show statistical significance for these low frequency items.

Even more limiting than restriction of range are the self report falsification problems and the failure to code non-apprehended criminal behaviors where no arrest was made. To further clarify this point, the frequency of applicants reporting any type of juvenile or adult felony arrest was only about 3.5 percent, compared to over 25 percent who admitted the commission of a serious felony during the background investigation or polygraph examination. These admitted acts (serious theft, arson, armed robbery, narcotics peddling, blackmarketing, sex with children, etc.) would have resulted in a felony arrest and conviction if the applicant had been apprehended for his/her criminal behavior. If such applicants were added to the felony arrest categories, the falsification correction factor (see Table 19 for 3.5 percent admitted negatives by 25 percent falsification) would result in a validity coefficient increase of over 80 percent! Thus, the validity coefficients for the sum of all felony arrests (Item 1) would increase from correlations of .107 and .117 to correlations of .196 and .214, respectively. Other reported correlations in Table 22 should also increase by a substantial amount.

As the findings clearly indicate, there are only minor and insignificant differences between the validity coefficient standardized by sex only and those standardized by sex and race. Although the correlations for criminal behavior tend to favor

slightly the sex/race standardization, direction fluctuates for other items and topics. In all cases for all topics, however, the findings are essentially equal and the results should be appropriate for Whites, Blacks and Hispanics.

The last category in Table 22 shows the multiple correlations (corrected for unreliable test scales). With age excluded, the multiple correlations are highest for the socialization construct at .36. As might be expected, age has a significant relationship with the responsibility variable, and the inclusion of age raises these multiple correlations substantially, to approximately .36. Since these multiple correlations are not corrected for applicant falsification, construct validity, non-linearity, etc., the true contribution of criminal behaviors for predicting applicants' performance on pertinent job behavioral constructs is significantly underestimated by these findings.

Recommendations and Conclusions: Civilian Criminal Background Items

The use of data pertaining to past criminal behavior is justified as part of the applicant selection process due to its relation with the socialization and responsibility constructs. During the evaluation process the applicants' felony conviction records should be stressed, but due consideration also should be given to their general arrest and conviction histories, to both

juvenile and adult behaviors and to both misdemeanors and felony incidents. Naturally, mitigating circumstances should be allowed to impact the final evaluation. The felony records of an applicant's immediate family show some relevance but such findings should be considered as less important than the applicants' own behaviors. Because of research limitations the obtained validity coefficients should be viewed as conservative estimates of the true contribution of civilian criminal record data for predicting police officer job behavioral constructs.

Military History

Table 23 shows the descriptive statistics for the military history items. Obviously, few individuals apply to HPD who have unfavorable military experience, with virtually no applicants having court martials and less than five percent reporting unfavorable reenlistment or draft codes. Because of the small variance, two special variable combinations were made. The first special variable simply summed the applicants' reenlistment and discharges codes, while the second added together all adjustment and improper behavior codes. Both of these special variables should be an index of the applicants' general adjustment while serving in a military environment.

As the validity coefficients reported in Table 24 indicate, the socialization construct is significant at the .01 level of confidence with all three measures of military adjustment and

TABLE 23

DISTRIBUTION STATISTICS FOR MILITARY ADAPTATION AND CRIMINALITY ITEMS

MILITARY ITEMS	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
All Male Applicants				
*1. Ever Been in the Service	370	1.616	.487	N.A.
2. Draft Classification	333	1.042	.200	4.2%
Had Military Experience				
3. Reinlistment Classification	91	1.044	.205	4.4%
*4. Discharge Code	141	0.936	.273	0.8%
5. Number of Article 15's	142	0.352	.792	20.4%
*6. Number of Special Court Martials	142	0.021	.145	2.1%
*7. Number of Summary Court Martials	142	0.007	.084	0.7%
*8. Number of General Court Martials	142	0.0	.0	0.0%
9. Self Rating of Adjustment	141	2.135	.699	15.6%
SPECIAL COMBINATIONS				
10. Reinlistment and Discharge Codes (Items 3 and 4)	74	1.987	.309	
11. Reinlistment, Discharge, Article 15's, Court Martials and Adaptation (Items 3, 4, 5, 6, 7 and 8)	74	4.581	1.250	

*Item 1 was excluded because of construct irrelevance and items 4, 6, 7 and 8 due to low variance.

TABLE 24

VALIDITY COEFFICIENTS[1] FOR MILITARY ADAPTATION AND CRIMINALITY ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
MILITARY ITEMS					
All Male Applicants					
2. Draft Classification	-	-	-	-	-
Had Military Experience					
3. Reinlistment Classification	.227**	.253***	-	.213**	.321****
5. Number of Article 15's	.254****	-	.234****	-	-
9. Self Rating of Adjustment	.179**	-	.183**	-	-
SPECIAL COMBINATIONS					
10. Reinlistment and Discharge Codes (Items 3 and 4)	.286***	.230**	.258**	.225*	.268**
11. Reinlistment, Discharge, Article 15's, Court Martials and Adaptation (Items 3, 4, 5, 6, 7 and 8)	.362****	.336****	.358****	.320****	.226*
MULTIPLE REGRESSION COEFFICIENTS[5]					
12. Items 3, 4, 5, 6, 7, 8 and 9 R =	.426****	.364****	.345****	.317****	.387****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

criminality. Reenlistment code is also related to the responsibility and emotional adjustment constructs, a logical finding since unfavorable reenlistment data should relate to the serviceman's overall adjustment. Coefficients for the special combination variables are impressive, reaching a correlation of .36 between socialization and the second combination. The fact that variable combinations are more powerful than the individual items supports the hypothesis that the data is too specific and that important interactions and considerations can be lost. Additional support for this conclusion is seen by the multiple correlations which are as high as .426 for socialization. It should also be noted that the findings for military criminal behaviors agree with those found for civilian criminality, which should strengthen the confidence in the research results.

Because of the extensiveness of "don't know" responses for the reenlistment code item, there is probably a much greater incidence of falsification and of poor reenlistment codes than obtained. Therefore a proper correction for self response falsification tendencies could significantly boost the obtained validity coefficients. Even without any adjustments, the relationships between military background data and relevant job behavior constructs are moderatly strong, comparing favorably to the magnitude of validity coefficients found in more traditional criterion-related validity research.

Recommendations and Conclusions: Military History Related Background Items

The use of military history and adaptation is justified in the Houston Police Department selection process. In particular, information pertaining to the applicant's reenlistment status, type of discharge, number of court martials, number of Article 15's, and general adjustment to military life should be considered. The applicant's draft classification by itself was not significantly related to the research constructs. It is unknown to what extent the low frequency of negative data influenced the findings, but in either case military draft status has no validation support for use in rejecting job applicants. (Negative draft status data might, however, be a lead for the investigator to follow up on, in case there are special circumstances involved.) The use of military history data is also logically related to selection for entrance into the Houston Police Department in that any law enforcement agency is a para-military environment requiring a certain type of "adaptation on the part of its members.

Comments Regarding Appropriateness of Methodology

To aid the reader's evaluation of the research model, three relevant questions were proposed in the first section of this chapter relating to the significance and type of validity coefficients obtained. Separate findings for the civilian and

military criminal items answered each of these questions positively: 1) a number of criminal record items were significantly related to one or more of the job behavioral constructs, 2) the socialization construct had higher validity coefficients with criminal behaviors than did the other two behavioral constructs, and 3) the validities for socialization and criminality are among the highest reported in this research for the socialization construct. Therefore, the construct validity model utilized appears to have a sound basis and should establish confidence in the remaining results.

As for evaluating the utility of the validity coefficients, the limitations previously enumerated, the size of the individual criminality coefficients, the consistency of significance among related items and multiple correlation of .36 and above indicate that the use of these topics can significantly aid the selection process. Individual items can reasonably be expected to attain statistical significance at the .05 level of confidence and, in fact, a number achieved significance at the .005 level of confidence. Based on the magnitude of the obtained correlations the expected maximum possible upper limit of the remaining validity coefficients for individual items should approximate .35. If this is the case, then significant correlations in the .10 range should be both practical and meaningful. That is, a single item with a correlation of .10 might be accounting for nearly ten percent of the variance that can be measured. In practice these

correlations should be much higher and any single, personal background item will usually be evaluated in conjunction with other relevant items. The multiple correlation coefficient is a more reasonable estimate of the topic's utility, but again the multiple correlation has the same restrictions as the items that comprise it.

Employment History and References

Table 25 presents the item distribution statistics and Table 26 shows the descriptive statistics and validity coefficients for nine employment behaviors and experiences and eleven self report reference ratings. Additional P.I.C. items relating to an applicant's prior experience as a police officer have been excluded because of small sample size.

As Table 26 clearly illustrates, there is a consistent relationship between employment experiences/reference ratings and the job behavioral constructs. Employment ratings given by the applicants (i.e., estimates how employment supervisors would rate applicants current job behavior) were particularly related to the responsibility construct, with a multiple correlation in the .30's. The multiple correlation using all employment related P.I.C. items was .42, quite a substantial size for only one background topic area. However, it is very logical and predictable that items most related to the responsibility construct would be those pertaining to an applicant's employment stability

TABLE 25

DISTRIBUTION STATISTICS FOR EMPLOYMENT HISTORY AND REFERENCE ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
GENERAL ITEMS FOR ALL				
1. Ever Self Employed	404	0.134	1.046	7.2%
2. Ever Police Officer	401	1.903	.297	90.3%
HAD ONE OR MORE FULL-TIME JOBS				
3. Currently Employed	369	1.325	.481	32.9%
4. Number of Full-Time Jobs	370	2.983	1.971	
5. Why Leave Last/Current Job	323	1.207	.681	5.6%
6. Number of Times Fired	370	0.281	1.151	18.3%
7. Number of Times Asked to Resign	368	0.057	.244	4.7%
8. Number of Times Quit without Notice	370	0.219	.573	16.0%
9. Months Average Job Tenure	367	11.834	13.286	
CURRENT SUPERVISOR RATINGS (FULL-TIME)				
10. Resourcefulness, Initiative	370	1.557	.693	6.5%
11. Follow Orders	370	1.484	.663	5.4%
12. Common Sense	369	1.518	.672	5.8%
13. Perseverance	370	1.541	.646	4.3%
14. Leadership Skills	368	1.617	.650	5.1%
15. Plan and Organize Work	369	1.580	.566	3.0%
16. Peer Relationships	370	1.443	.649	4.6%
17. Absenteeism Record	369	1.439	.610	4.3%
OTHER RATINGS (FULL-TIME)				
18. Worst Supervisor Rating	366	1.850	.874	15.0%
19. Worst Peer Rating	367	1.621	.706	5.3%
20. Suitability for HPD	366	1.568	.614	1.9%

TABLE 26

VALIDITY COEFFICIENTS[1] FOR EMPLOYMENT HISTORY ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
GENERAL ITEMS FOR ALL					
1. Ever Self Employed	-	-	-	-	-
2. Ever Police Officer	-	-	-	-	.111*
HAD ONE OR MORE FULL-TIME JOBS					
3. Currently Employed	.185****	.133***	.177****	.116**	-
4. Number of Full-Time Jobs	.127***	-	.138****	-	-
5. Why Leave Last/Current Job	.141***	.145****	.150****	.176****	-
6. Number of Times Fired	.103**	-	.105**	-	-
7. Number of Times Asked to Resign	-	-	-	-	-
8. Number of Times Quit without Notice	.178****	.174****	.161****	.151****	.165****
9. Months Average Job Tenure	.144****	.136****	.123***	.150****	.141****
CURRENT SUPERVISOR RATINGS (FULL-TIME)					
10. Resourcefulness, Initiative	-	.170****	-	.159****	-
11. Follow Orders	.094*	.119**	-	.096*	-
12. Common Sense	.096*	.176****	.089*	.169****	.102*
13. Perseverance	-	.169****	-	.159****	.136***
14. Leadership Skills	-	.171****	-	.181****	-
15. Plan and Organize Work	.157****	.284****	.136****	.265****	.209****
16. Peer Relationships	-	.095*	-	-	-
17. Absenteeism Record	.209****	.262****	.164****	.228****	.139****
OTHER RATINGS (FULL-TIME)					
18. Worst Supervisor Rating	.126***	-	.126***	-	-
19. Worst Peer Rating	.093*	-	.090*	-	-
20. Suitability for HPD	.138****	.120**	.111**	.106**	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
21. Reference Items 10 through 17	R = .235****	.341****	.191****	.311****	.260****
22. All Items (3 through 20)	R = .374****	.428****	.369****	.419****	.345****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

****Statistically significant at .0001 level of confidence.

(number of times fired, average job tenure, currently employed, etc.), and ratings of work performance and absenteeism.

Since employment background items obtained the largest overall falsification indices, the true validity coefficients are much higher than reported in Table 26. For example, the correction for falsification would increase each of the rating validities by about 60 percent (see Tables 18 and 19, and apply correction associated with 5 percent admitted negatives and 22 percent falsification). Thus, the typical rating validity correlation of about .17 would increase to .27. The absenteeism rating would increase from a correlation of .26 to .42, and the multiple correlation for applicants' view of supervisors' ratings would increase to .54. The multiple correlation for all employment items would increase to .64 by application of the falsification correction. Employment background data, therefore, is an extremely important predictor of the police officer job behavior constructs.

Recommendations and Conclusions: Employment-Related Background Items

The job behavior constructs were consistently related to employment history items, particularly those pertaining to employment stability and self report employer reference ratings. Thus the Department is justified in collecting and utilizing employment data during the background investigation. Although actual

employer reference ratings were not utilized in this research, the self report ratings and associated falsification correction data indicate that employer references are very important predictors of job behavior constructs and should be used in the future screening of police officer applicants.

Educational Behaviors

Item statistics for applicant educational backgrounds are provided in Table 27. All items relating to general education and high school adjustment have sufficient variance for further analyses as do most college related behavioral variables. Only P.I.C. items 14 and 15 (times placed on non-academic probation and frequency of other types of disciplinary problems) had low variance and were excluded from the validity analyses. A special combination variable (Item 18) was created to consider the applicant's most recent educational adjustment. Item 18, therefore, was developed by using the applicant's college attitude code if applicable, or if not, his/her high school attitude code.

Validity coefficients for the general educational items were all significant at the .005 level of confidence for the responsibility construct, and mostly significant for the remaining two constructs (see Table 28). Level of education, high school grades and attitudinal adjustment in particular were found to be important general educational predictors. The majority of items for the "college only" sample were also significant, again

TABLE 27

DISTRIBUTION STATISTICS FOR EDUCATIONAL ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
GENERAL ITEMS APPLICABLE TO ALL				
1. Highest Education or Equivalency Code Attained	404	3.328	2.561	
2. High School Grades/Quartile	404	2.603	1.107	
3. Times Suspended/on Probation in High School	403	0.223	.601	16.4%
4. Attitude Code Toward High School	394	2.033	.615	15.0%
5. Ever Attend College	404	1.386	.488	38.6%
6. Number Courses in Law Enforcement	404	1.696	3.778	
HAD SOME COLLEGE EXPERIENCE				
7. Still Attending College	239	1.636	.482	
8. Type Degree Attained, if any	246	3.602	.790	78.5%
9. Times Dropped out of School	245	0.551	.616	49.6%
10. Number of Courses Dropped	247	1.802	2.668	
11. Number of Courses Failed	248	0.956	1.752	
12. Overall Grade Point Average	236	2.494	.690	
13. Times on Academic Probation	247	0.320	.583	27.2%
*14. Times Other Probation	249	0.020	.141	1.2%
*15. Times Other Discipline	249	0.020	.210	0.7%
16. Percent Self Supported Financially	238	57.26%	39.85%	N.A.
17. Attitude Code Toward College	247	1.660	.667	7.3%
SPECIAL COMBINATION				
18. Attitude to Most Recent Education	396	1.821	.683	

*Items 14 and 15 were excluded from analysis because of small variance.

TABLE 28

VALIDITY COEFFICIENTS[1] FOR EDUCATIONAL ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
GENERAL ITEMS APPLICABLE TO ALL					
1. Highest Education or Equivalency Code Attained	.100**	.217****	.095*	.197****	.118***
2. High School Grades/Quartile	.136****	.204****	.151****	.201****	-
3. Times Suspended/on Probation in High School	.112**	.167****	.115**	.142****	-
4. Attitude Code Toward High School	.154****	.174****	.181****	.188****	.089**
5. Ever Attend College	.133****	.267****	.127****	.256****	.205****
6. Number Courses in Law Enforcement	.105***	.140****	-	.128****	.123***
HAD SOME COLLEGE EXPERIENCE					
7. Still Attending College	-	.157***	-	.150**	.116*
8. Type Degree Attained, if any	.140**	.192****	.147**	.170****	.123*
9. Times Dropped out of School	-	-	.107*	-	-
10. Number of Courses Dropped	-	-	-	-	-
11. Number of Courses Failed	.245****	-	.281****	-	.109*
12. Overall Grade Point Average	.115*	.190****	.141**	.179****	.163***
13. Times on Academic Probation	-	-	-	-	-
16. Percent Self Supported Financially	.128*	.161***	.117*	.165***	.150**
17. Attitude Code Toward College	.287***	.253****	.282****	.259****	.243****
SPECIAL COMBINATION					
18. Attitude to Most Recent Education	.293****	.290****	.297****	.296****	.261****
MULTIPLE REGRESSION COEFFICIENTS[5]					
19. General Items 1 through 6	R = .211****	.356****	.243****	.337****	.224****
20. College Items 7 through 17	R = .372****	.344****	.370****	.341****	.280****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

stressing the importance of educational level, grades and adjustment (seriousness of attitude and number of courses failed). The magnitude of a number of the pertinent validity coefficients were in excess of .20, indicating a meaningful relationship even without considering research restrictions.

The special combination variable for seriousness of attitude toward studies (Item 18) was significantly related to all constructs, with correlations of approximately .28. The multiple correlations indicating overall contribution of the educational topic reached a magnitude of .37 for college items and .35 for items with general appropriateness. These overall contributions should be regarded as minimal because of uncorrected research limitations.

As an illustration of the impact of the restriction of range limitation, 89.8 percent of the applicant sample had graduated from high school but only an estimated 77 percent of the population from which these applicants came had graduated from high school in 1976. A correction for this restriction in range would increase most of the validity coefficients by over 35 percent. Thus, the unrestricted correlation between responsibility and college experience would increase from .267 to .360 and the multiple correlation for the general educational items would increase from .35 to .468. As another example, the non-linear transformation correction would increase the correlation coefficients for overall grade point average from .179 to .245

for responsibility, and from .163 to .255 for the emotional adjustment construct. Compared to the original correlation coefficient of .163 for grade point average-emotional adjustme: corrections for both non-linearity and restriction of range would more than double the validity coefficient to a correlatic of .344.

Recommendations and Conclusions: Education-Related Background Items

Many educational items are related to the important behavioral constructs underlying police officer job performance. Therefor the Houston Police Department is justified in continuing to obtain and evaluate applicants' educational attainment, academi grades and attitudinal adjustment. Although level of educatio attained is important, the research clearly demonstrates that ability and/or desire to apply oneself to academic achievement at any level is equally important.

Research findings not only support the high school degree entrance requirement but might support the exclusion of the G.E.D. Equivalency as an alternative to a full high school education, or increasing the educational entrance standard to some level of college attainment. A test of mean differences (see Table 29) revealed that applicants with a G.E.D. had significantly lower socialization scores than those with a high school degree (or more education). This finding suggests that

TABLE 29

MEAN CONSTRUCT SCORE COMPARISONS BY LEVEL OF EDUCATION

A. G.E.D. VERSUS HIGH SCHOOL COMPARISONS

		Mean Construct Scores				
		Sex		Sex x Race		
Educational Level	Sample Size	Soc	Resp	Soc	Resp	Emot. Adj.
G.E.D.	44	44.43	45.20	-.544	-.234	.149
High School Graduate	230	50.60****	46.36	.106****	-.053	.070

B. COMPARISON OF TWO OR MORE YEARS' COLLEGE EXPERIENCE WITH LESS EDUCATION

		Mean Construct Scores				
		Sex		Race x Sex		
Educational Level	Sample Size	Soc	Resp	Soc	Resp	Emot. Adj.
Less than 2 Years of College	124	49.54	46.07	.004	-.091	-.043
Two or More Years of College	281	50.43	50.48****	.091	.288****	.165

****t test of mean differences shows significance at the .001 level of confidence.

high school dropouts will perform lower on job behavioral constructs related to delinquency and asocial behaviors.

On the other hand, applicants who completed two or more years of college tend to be more responsible than applicants who either did not attend college at all or who did not complete the first two years by the time of application. Establishing any number of college hours as the minimum requirement, however, would exclude 40 percent or more of current applicants, placing additional pressures on recruiting efforts.

Financial Stability

Financial stability background items have been divided into two categories, the first category applying to all applicants regardless of age and credit experience and the second only for persons having some credit experience. Current financial condition belongs in both categories and is reported under both conditions. Specific P.I.C. item distribution statistics are presented in Table 30.

The validity coefficients for most items show significant relationships to each of the three constructs (see Table 31). In particular, items connotating financial maturity and responsibility (i.e., Credit Bureau rating, current financial condition, number of credit accounts behind for one month or more, months delinquent on worst account, number of times purchases have been repossessed, number of credit refusals, number of bounced checks

TABLE 30

DISTRIBUTION STATISTICS FOR FINANCIAL MATURITY ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
APPLICABLE TO ALL APPLICANTS				
1. Ever Established Credit	402	1.192	.394	19.2%
2. Age Financially Independent	400	16.203	6.424	N.A.
3. Number of Bounced Checks	402	1.037	2.172	38.5%
4. Value of Bounced Checks	402	$28.54	$121.81	38.5%
5. Current Financial Condition[1]	399	2.263	.844	36.1%
SOME CREDIT ESTABLISHED				
6. Credit Bureau Rating	320	1.620	.851	14.3%
7. Current Financial Condition[1]	322	2.200	.828	33.3%
8. Number of Accounts Behind One Month+	325	0.311	.945	16.0%
9. Months Behind on Worst Account	323	0.508	1.834	16.1%
10. Number of Repossessions	325	1.123	.631	10.2%
11. Number of Credit Refusals	323	0.430	1.044	30.7%
*12. Number of Bankruptcies	325	1.015	.133	1.5%

[1]Duplicated items.

TABLE 31

VALIDITY COEFFICIENTS[1] FOR FINANCIAL STABILITY ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
APPLICABLE TO ALL APPLICANTS					
1. Ever Established Credit	.219****	.092*	.187****	.088*	.161****
2. Age Financially Independent	-	.095*	-	.100**	.103**
3. Number of Bounced Checks	.174****	-	.168****	.095*	.091*
4. Value of Bounced Checks	-	-	-	-	-
5. Current Financial Condition	.235****	.197****	.214****	.172****	.111**
SOME CREDIT ESTABLISHED					
6. Credit Bureau Rating	-	.152****	-	.113**	.117**
7. Current Financial Condition	.192****	.191****	.197****	.168****	.132***
8. Number of Accounts Behind One Month+	.105*	.176****	-	.136***	.120**
9. Months Behind on Worst Account	-	.113**	.150****	.103*	.086*
10. Number of Repossessions	-	.094*	-	.102*	.098*
11. Number of Credit Refusals	.140****	.113**	.122**	.106*	.115**
MULTIPLE REGRESSION COEFFICIENTS[5]					
13. General Items 1, 2, 3 and 4	R = .346****	.251****	.329****	.283****	.246****
14. General Items 1, 2, 3 and 4 plus Age	R = N.S.	.281****	N.S.	.312****	.290****
15. Have Credit (Items 6, 7, 8, 9, 10, 11 and 12)	R = .245****	.256****	.233****	.230****	.192****
16. Have Credit (Items 6, 7, 8, 9, 10, 11 and 12) plus Age	R = N.S.	.344****	N.S.	.326****	.336****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

and age achieved financial independence) are significantly related to one's general sense of responsibility and emotional adjustment and tend to be related to one's character delinquency tendencies. The multiple correlations, excluding age considerations, range from .23 to .35 and are of sufficient magnitude to link credit maturity to important job related constructs.

The obtained validity coefficients are underestimated due to research constraints, particularly those relating to response falsification. As a conservative estimate, 15 percent of the applicants falsified their responses to credit items. Applying the falsification correction (Table 19) to the number of accounts the applicant is behind one or more months, for example, would increase the validity coefficient from .17 to .21 for the responsibility construct.

Recommendations and Conclusions: Financial Stability Background Items

Background items related to applicants' credit behaviors and financial maturity are significantly related to each of the job behavior constructs. Current financial status and prior credit behaviors, therefore, are justified for use when evaluating police officer applicants. Moderating variables, such as applicant age, how recently applicant had credit problems, circumstances surrounding account delinquencies and so on should

be considered when making the accept/reject decision.

Emotional Stability

"Emotional stability" is somewhat of a catch-all category because it is composed of a number of topics with P.I.C. items referring to emotional control, maturity, general adjustment, stability, etc. Rather than include all relevant topics in this section, only two types of items are presented: those dealing with mental health and emotional control; and those relating to subjectivity and prejudice ratings by applicants. Other topics with items that naturally overlap emotional stability are drinking habits, drug use, employment stability, and so on. These topics are discussed in separate sections of this chapter. To maintain a narrow perspective in this section, only two items, acts of violence toward one's spouse and age, were added to the emotional control items. (Applicant age was added as a logical moderator for emotional control and temper.) Two special combination variables were created, one summing the three prejudice ratings and the other adding the codes for number of physical fights as an adult and reported loss of temper frequencies for the past 12 months. A listing of all emotional stability variables considered in this section and item statistics are presented in Table 32.

As expected, validity coefficients for temper control and prejudice items are significant for each of the constructs,

TABLE 32

DISTRIBUTION STATISTICS FOR EMOTIONAL CONTROL AND PREJUDICE ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
EMOTIONAL STABILITY				
1. Ever Psychological Problem	404	1.092	.289	9.2%
2. Has Active Temper	404	1.433	.511	42.7%
3. Age in Years[1]	405	22.919	3.595	N.A.
4. Times Lost Temper/Year	381	3.525	8.289	37.3%
5. Number of Fights as Adult	404	0.327	.855	19.1%
6. Number of Times Hit Spouse[1]	189	0.466	1.069	23.8%
PREJUDICES				
7. Racial Prejudices[1]	403	1.489	.612	45.2%
8. Religious Prejudices[1]	405	1.094	.324	8.3%
9. Other Prejudices (Youth, Sex)[1]	405	1.689	.813	51.2%
SPECIAL COMBINATIONS				
10. Sum of Fights and Temper Loss (Items 4 and 5)	381	3.856	8.409	
11. Sum of Prejudice (Items 7, 8 and 9)	403	4.273	1.314	

[1]Items also reported in other sections of this chapter.

and particularly for the emotional adjustment construct (see Table 33). In fact, prejudice items had validity coefficients varying from .18 to .24 with the emotional adjustment construct, while the special variable sum of all prejudice ratings correlated .28 with the same constructs. The multiple correlation for all prejudice ratings and emotional control items was approximately .48, which represents a significant contribution to the prediction of an applicant's emotional adjustment and maturity, considering research limitations. As further confirmation of the logic of these conclusions, one should refer to findings for other topics with strong emotional stability impact (especially see drinking habits in the next section).

Recommendations and Conclusions: Emotional Stability Background Items

Background items pertaining to an applicant's mental health, emotional control, subjectivity and prejudice have significant relationships with each of the three job behavior constructs and are justified topics to consider in the selection of police officers. Age is a rather important variable and should be considered when interpreting an applicant's emotional stability. That is, an applicant's emotional maturity and sense of responsibility should be expected to increase with age.

Use of Alcohol

Tables 34 and 35 respectively show the descriptive statistics

TABLE 33

VALIDITY COEFFICIENTS[1] FOR EMOTIONAL ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
EMOTIONAL STABILITY					
1. Ever Psychological Problem	.115**	-	.097*	-	-
2. Has Active Temper	.117***	.122***	.139****	.105**	.113**
3. Age in Years	-	.165****	-	.169****	.255****
4. Times Lost Temper/Year	-	.129***	-	.146****	.169****
5. Number of Fights as Adult	.082*	.086*	.086*	.084*	-
6. Number of Times Hit Spouse	-	-	-	-	.188***
PREJUDICES					
7. Racial Prejudices	-	.123****	.108**	.158****	.180****
8. Religious Prejudices	.160****	.147****	.178****	.165****	.202****
9. Other Prejudices (Youth, Sex)	.130****	.180****	.164****	.209****	.244****
SPECIAL COMBINATIONS					
10. Sum of Fights and Temper Loss (Items 4 and 5)	-	.136****	-	.152****	.156****
11. Sum of Prejudice (Items 7, 8 and 9)	.199****	.242****	.204****	.155****	.282****
MULTIPLE REGRESSION COEFFICIENTS[5]					
12. Prejudice Items (7, 8 and 9) R =	.176****	.198****	.221****	.230****	.284****
13. Items 1, 2, 3, 4, 5, 7, 8, and 9 R =	.320****	.254****	.331****	.324****	.478****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

CONTINUED

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TABLE 34

DISTRIBUTION STATISTICS FOR ALCOHOL BEHAVIOR ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
APPLICABLE TO ALL APPLICANTS				
1. Extent of Drinking	405	2.015	.617	14.3%
DO SOME DRINKING				
2. Average Drinks/Week	342	3.817	5.302	N.A.
3. Times Drunk in Last Year	342	1.915	4.180	54.4%
4. Times D.W.I. in Last Year	340	0.529	1.759	19.7%
5. Times High in Last Year	340	5.891	11.900	80.1%
6. Driving while High in Last Year	337	2.650	9.135	41.8%
*7. Drinking Problems	341	1.038	.300	1.5%

*Excluded due to low variance.

TABLE 35

VALIDITY SOEFFICIENTS[1] FOR ALCOHOL USE ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
APPLICABLE TO ALL APPLICANTS					
1. Extent of Drinking	-	-	-	-	-
DO SOME DRINKING					
2. Average Drinks/Week	-	.099*	-	.095*	.124**
3. Times Drunk in Last Year	.116**	.153****	.154****	.181****	.200****
4. Times D.W.I. in Last Year	-	.162****	.120**	.172****	.197****
5. Times High in Last Year	.109**	.102*	.116**	.120**	.130***
6. Driving while High in Last Year	-	.131***	-	.140***	.104*
MULTIPLE REGRESSION COEFFICIENTS[5]					
8. Items 1 through 7	R = .116**	.162****	.154****	.187****	.210****
9. Items 1 through 7 plus Age	R = N.S.	.240****	N.S.	.260****	.326****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

and validation coefficients for drinking behavior (alcohol use items. Applicants' drinking activities that occurred during the past year are significantly related to each of the constructs, particularly to emotional adjustment and responsibil. Multiple correlations are not large, but when age also is considered a multiple correlation of about .33 was obtained with emotional adjustment. Age acts somewhat as a moderator for alcohol use, since younger adults tend to be more carefree and socially active.

Non-linearity was assumed to be an important limitation for drinking habits. As a check on this hypothesis, non-linear transformations were made for two variables, number of times drunk and number of times high on alcohol during the past 12 months. Although validity coefficients increased for each of the constructs, the increase was particularly noticeable for the emotional adjustment construct, reaching a correlation of .241 for times drunk (compared to .200) and a correlation of .211 for times high (compared to .120). The size of most alcohol use item validities would approach .2 if research limitations could eliminated.

Recommendations and Conclusions: Drinking Habits

Background items pertaining to an applicant's drinking habits are significantly related to the police officer job behavior constructs and are justified factors for evaluation of job

applicants seeking employment with the Houston Police Department. The results do not suggest that applicants should not use alcohol at all, but rather that their drinking habits should be moderate and rational. Alcohol use is particularly related to emotional adjustment, so questionable drinking habits should act as a warning to the HPD background investigator to dig deeper into an applicant's emotional stability and maturity.

Drug Usage

Table 36 presents the item statistics for three types of illegal drug use behaviors: use of marijuana; use of non-marijuana drugs such as LSD, heroin, cocaine, "speed", etc.; and use of non-prescribed medicines ("uppers," "downers," narcotics, etc.) Frequencies for each of these drug use activities were obtained for the applicants' total use and use during the past 12 months. In addition, two special combinations were made summing the applicants' total use of drugs ever and total use during the last 12 months. Two P.I.C. items are omitted (attitudes toward drug use laws) because of interpretation and relevancy problems.

Validity coefficients in Table 37 are not impressive but do indicate some significance for items relating to use of hard drugs and non-prescription medicines. Research limitations for analyzing drug use behaviors are particularly severe, because over 30 percent of the applicants were found to have falsified their preliminary drug use responses. In addition, drug usage

TABLE 36

DISTRIBUTION STATISTICS FOR DRUG USAGE ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
FREQUENCY OF USE EVER				
1. Marijuana	395	22.646	93.641	61.0%
2. Other Drugs	401	1.147	6.664	15.1%
3. Non Prescription Medicine	402	0.672	4.351	10.0%
FREQUENCY IN LAST YEAR				
4. Marijuana	395	1.881	7.953	23.5%
5. Other Drugs	402	0.172	2.137	3.5%
6. Non Prescription Medicine	402	0.236	1.608	5.7%
SPECIAL COMBINATIONS				
7. Sum Frequency (Items 1, 2 and 3)	394	24.484	95.903	
8. Sum Frequency in Last Year (Items 4, 5 and 6)	395	2.291	9.067	

TABLE 37

VALIDITY COEFFICIENTS[1] FOR DRUG USAGE WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
FREQUENCY OF USE EVER					
1. Marijuana	-	-	-	-	-
2. Other Drugs	-	.098**	.082*	.111**	-
3. Non Prescription Medicine	-	-	-	-	-
FREQUENCY IN LAST YEAR					
4. Marijuana	-	-	-	-	-
5. Other Drugs	-	-	-	-	-
6. Non Prescription Medicine	.113**	-	.088*	-	-
SPECIAL COMBINATIONS					
7. Sum Frequency (Items 1, 2 and 3)	-	-	-	-	-
8. Sum Frequency in Last Year (Items 4, 5 and 6)	-	-	-	-	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
9. Items 1 through 6	.113**	.098**	.088*	.164***	-

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

probably is not linearly related to personality dimensions.

Two kinds of non-linear analyses were made for drug usage ite The first technique dichotomized each drug behavior into "did" and "did not" engage in drug use activities. (This dichotomy was deemed necessary to investigate HPD's current requirement of no illegal drug behaviors during the 12-month period preced application.) The second non-linear technique involved the standard inverse transformation for frequency of usage.

As the non-linear validity coefficients in Table 38 clearly indicate, there are significant relationships for the usage of marijuana and other drugs with each of the three constructs. Findings are obviously underestimated because of the non-linearity, restriction of range and falsification problems. Other types of non-linear transformations might be more appropriate for this data but were not performed. The restriction i range problem may be very severe, because during the course of this research study there was publicity surrounding HPD's drug use requirements. And, lastly, falsification corrections would increase the already corrected non-linear coefficients by multiples of about 20 percent for frequency of marijuana use ever, to over 94 percent for use of hard drugs during the past 12 months. Thus, a minimally significant correlation of .088 describing the relationship between socialization and recent us of hard drugs would increase to a much more substantial correla tion of .17.

NON-LINEAR VALIDITY COEFFICIENTS[1] FOR DRUG USAGE WITH JOB BEHAVIOR CRITERIA

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
EVER USE DRUGS - YES OR NO					
FREQUENCY OF USE EVER					
1. Marijuana	.156****	-	.144****	-	-
2. Other Drugs	.103**	.091*	.125***	.102**	-
3. Non Prescription Medicine	-	-	-	-	-
FREQUENCY IN LAST YEAR					
4. Marijuana	-	-	.085*	.083*	.085*
5. Other Drugs	.088*	.118***	.104**	.087*	.088*
6. Non Prescription Medicine	-	-	-	.081*	-
SPECIAL COMBINATIONS					
7. Sum Frequency (Items 1, 2 and 3)	.167****	-	.087*	.165****	-
8. Sum Frequency in Last Year (Items 4, 5 and 6)	.108**	.118***	.106**	.122***	.109**
INVERSE TRANSFORMATION					
FREQUENCY OF USE EVER					
9. Marijuana	.143****	-	.133****	-	-
10. Other Drugs	.104**	.102**	.123***	.110**	-
11. Non Prescription Medicine	-	-	-	-	-
FREQUENCY IN LAST YEAR					
12. Marijuana	-	-	-	-	-
13. Other Drugs	-	.108**	.083*	.116***	.094*
14. Non Prescription Medicine	.101**	.101**	.084*	.084*	-

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

Recommendations and Conclusions: Drug Usage

There is some evidence to support the relationship between drug use background items and important police officer constru It is difficult to evaluate adequately the contribution of thi topic, however, because of the magnitude of applicant response falsification and the probable restriction in range problem. Although usage of drugs and how long ago it occurred should be considered when assessing applicants, the validation findings do not support an unconditional requirement of no drug use at a Because marijuana has been used by the majority of applicants, because most youngsters have experimented with it, and because of the continuing controversy about its effects, the use of marijuana should not be automatically disqualifying. Illegal u of all types of narcotics should be considered in the selectio process along with extenuating circumstances, such as frequenc how long ago and at what age use occurred, what kind of drugs used, and so on.

Admitted Theft

Three distinct topics were covered during the preliminary selection interview relating to theft: total number of times applicant had stolen, total value involved and how long ago la theft occurred. Since people tend to respond only to direct questions about sensitive topics, applicants were asked separ about incidences of stealing or shoplifting, changing of pric

tags and purchasing stolen goods. Three special combination variables also were created: the total number of all thefts; the total value of all theft activities; and the most recent occurrence of any theft activity (see Table 39 for item statistics).

Several problems occurred in attempting to analyze the data which need to be noted. First, the frequency and total value items were often only rough estimates, which research team coders inferred from interviewer notations. Second, those applicants who had committed no theft could not be coded on the items relating to how long ago the last theft occurred, since they should receive neither a zero nor an artificially high number. Third, as compared to the preliminary interview responses, identification of "true" incidences of theft increased markedly during the background investigation and polygraph examination, making responses for all applicants not thoroughly investigated far too low. A problem related to the above was that the incidence of significant falsification was quite high, and underestimated at 32 percent.

In spite of these difficulties, statistically significant validity coefficients were obtained for P.I.C. items relating to number of thefts as well as how long ago the thefts occurred, and for the three items relating to purchasing of stolen goods (see Table 40). The multiple correlation was in excess of .30 with all constructs except emotional stability, which was .28. Con-

TABLE 39

DISTRIBUTION STATISTICS FOR ADMITTED THEFT ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
STEAL/SHOPLIFT				
1. Number of Times	402	5.142	12.254	64.9%
2. Total Value	359	$95.46	$405.75	
3. Number of Months Ago Last	261	68.452	86.826	
CHANGE PRICE TAGS				
4. Number of Times	403	0.181	.705	10.4%
5. Total Value	398	$25.90	$501.13	
*6. Number of Months Ago Last	42	80.048	49.867	
PURCHASED STOLEN GOODS				
7. Number of Times	403	0.305	1.192	17.6%
8. Total Value	396	$11.27	$48.03	
9. Number of Months Ago Last	71	53.113	58.500	
SPECIAL COMBINATIONS				
10. Total Number of Thefts (Items 1, 4 and 7)	402	5.629	12.529	
11. Total Value of Thefts (Items 2, 5 and 8)				
12. Number of Months Ago of Most Recent Occurrence (Items 3, 6 and 9)	405	113.810	105.447	

*Excluded due to small sample size.

TABLE 40

VALIDITY COEFFICIENTS[1] FOR ADMITTED THEFT ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
STEAL/SHOPLIFT					
1. Number of Times	-	.200****	-	.178****	.197****
2. Total Value	-	-	-	-	-
3. Number of Months Ago Last	-	.203****	-	.204****	-
CHANGE PRICE TAGS					
4. Number of Times	-	-	-	-	-
5. Total Value	-	-	-	-	-
PURCHASED STOLEN GOODS					
7. Number of Times	-	.135****	-	.101**	-
8. Total Value	-	.125***	-	.107**	-
9. Number of Months Ago Last	.280***	.240**	.289***	.236**	.269**
SPECIAL COMBINATIONS					
10. Total Number of Thefts (Items 1, 4 and 7)	-	.211****	-	.188****	.194****
11. Total Value of Thefts (Items 2, 5 and 8)	-	-	-	-	-
12. Most Recent (Items 3, 6 and 9)	-	.196****	-	.193****	.133***
MULTIPLE REGRESSION COEFFICIENTS[5]					
13. Items 1, 2, 4, 5, 7 and 8	R = .323****	.338****	.301****	.320****	.281***
14. Items 1, 2, 4, 5, 7 and 8 plus Age	R = N.S.	.379****	N.S.	.351****	.322****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

sidering research limitations, the obtained validity coefficie are significantly underestimating the "time" relationship between background items related to thefts and the police officer behavioral constructs.

As an illustration of the effects of just one research limitat consider the following non-linear hypothesis: Background item relating to the dollar value of thefts should not be on an equa interval scale; rather, scale intervals should decrease as doll value increases (i.e., the difference between the theft of $0 to $100 versus the theft of from $4,000 to $5,000). To test th non-linearity assumption, value of theft was transformed to a n scale by the formula:

$$\text{Transformed Value of Theft} = \frac{1}{1 + \$ \text{ Value of Theft}}$$

(The constant 1 was added in case no theft was reported.) Validity coefficients for the theft value items with the constr scales are compared in Table 41 using the linear scales and the specially derived non-linear inverse transformation scale. As the data in the table clearly indicate, the non-linear hypothe is superior for these items, resulting in statistically significant relationships with each of the constructs, compared to insignificant validities for all but one of the linear theft-construct relationships.

Other untried transformation procedures could result in even

TABLE 41

COMPARISON OF VALIDITY COEFFICIENTS USING LINEAR DOLLAR VALUES FOR THEFT ITEMS VERSUS USING A NON-LINEAR INVERSE TRANSFORMATION SCALE FOR THEFT VALUE ITEMS

	Sex Standardized		Sex/Race Standardized		
	Soc	Resp	Soc	Resp	Emot. Adj.
LINEAR SCALE					
Value of Stolen and Shoplifted Goods	-	-	-	-	-
Value of Price Tag Changes	-	-	-	-	-
Value of Stolen Good Purchases	-	.125***	-	.107**	-
NON-LINEAR[1]					
Value of Stolen and Shoplifted Goods	.169****	.122***	.166****	.168****	.113***
Value of Price Tag Changes	-	-	-	-	-
Value of Stolen Good Purchases	.144****	.152****	.134****	.112**	.091*

[1]Inverse transformation by the formula: transformed value of theft = $\frac{1}{1 + \text{dollar value of reported theft}}$

higher validities than given in this report. Furthermore, a falsification correction would increase these relationships even more by multiplying the obtained non-linear coefficients 1.23 for stolen/shoplifted correlations, by 1.53 for price tag changes and by 1.38 for stolen good purchses. Corrections for non-linearity and falsification, therefore, will more than double most theft validity coefficients. Consequently, the research data does demonstrate that theft behaviors are related to each of the important job behavior constructs.

Recommendations and Conclusions: Theft-Related Background Items

Items pertaining to admitted theft via stealing money, shoplifting, changing price tags and purchasing stolen goods are significantly related to the job behavior constructs and are justified for use during the selection of police officer candidates. Mitigating circumstances, such as type of theft, frequency, total value, how long ago and at what age the theft occurred, etc., should be considered when evaluating applicant theft behaviors.

Marital Stability

Marital history item statistics and validity coefficients are presented in Tables 42 and 43. (Certain items pertaining to stability of prior marriages have been omitted due to the small frequency of applicants with more than one marriage.) Validity coefficients for items relating to incidence of divorce or separations did not attain statistical significance. Although

TABLE 42

DISTRIBUTION STATISTICS FOR MARITAL STABILITY ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
APPLICABLE TO ALL SUBJECTS				
1. Ever Been Married	405	0.565	.689	47.7%
HAS BEEN MARRIED				
2. Number of Times Married	193	1.187	.507	14.5%
3. Number of Times Divorced	192	0.302	.616	24.5%
4. Number of Times Separated	190	0.437	.863	26.8%
5. Number of Times Hit Spouse	189	0.466	1.069	23.8%
6. Amount of Arguing	191	2.293	.868	9.0%
7. Evaluation of Marriage	170	1.447	.705	6.5%
8. Ever Cheat on Spouse[1]	192	1.354	.596	37.1%

[1] Item 8 is also reported in Section 7 of this chapter.

TABLE 43

VALIDITY COEFFICIENTS[1] FOR MARITAL STABILITY ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
APPLICABLE TO ALL SUBJECTS					
1. Ever Been Married	-	-	-	-	.194****
HAS BEEN MARRIED					
2. Number of Times Married	-	-	-	-	-
3. Number of Times Divorced	-	-	-	-	-
4. Number of Times Separated	-	-	-	-	-
5. Number of Times Hit Spouse	-	-	-	-	.187***
6. Amount of Arguing	-	.133*	-	.133*	-
7. Evaluation of Marriage	-	-	-	-	-
8. Ever Cheat on Spouse	-	.197****	-	.161**	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
9. Items 2 through 8	R = .286****	.226****	.323****	.217****	.187****
10. Items 2 through 8 plus Age	R = N.S.	.320****	N.S.	.300****	.300****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.

an applicant's current and past marital status was not shown to be related to the three constructs, an applicant's actions toward current or past spouse were found to be important. More specifically, applicants who tend/tended to argue a lot with, to "cheat" on, or to physically abuse their spouse(s), obtained lower scores on the police officer job behavior constructs.

The multiple correlation coefficient between marital stability and the socialization construct was .32, a moderate relationship considering the limitations imposed by the research design. When applicant age was taken into consideration the multiple correlations for responsibility and emotional adjustment also approximated .30.

Recommendations and Conclusions: Marital Stability Background Items

There is a significant relationship between certain marital stability items and police officer job behavioral constructs. Items relating to current marital status and to prior marital status did not attain the required statistical significance and cannot be justified for use in the applicant selection process by this research. (Research findings do not necessarily mean that no relationship exists for these items; but it does mean that a statistically significant relationship at the .05 level of confidence was not obtained for marital status items. Small sample sizes such as only five applicants being separated or

only 22 being divorced at time of application made such items difficult to study.

However, facts relating to the applicant's handling of the marriage (i.e., physical or verbal violence, sexual promiscuity are related to an applicant's sense of responsibility and emotional adjustment and can be justified as a valid part of the Department's selection process. Additional support for this conclusion is presented under the background topics of immoral sexual behaviors and emotional stability discussed in this chapter.

Immoral Sexual Behaviors

Table 44 shows the distribution statistics for the immoral behavior P.I.C. items, grouped separately for three marital status categories. Although some items have a large variance (i.e., "cheating" on spouse items, adult use of prostitutes and the dating of married persons by single applicants), several important variables had low variances, and thus had to be excluded from further analyses. These excluded items tended to include the more bizarre sexual behaviors (i.e., receipt of payment for sex and self ratings for sexual conduct for which the applicant could be blackmailed). In addition, many sexual behaviors were not coded by the researchers unless the applicant regarded his/her behavior as abnormal. Examples of such lost data include applicants who admitted having sexual relations

with young children, and those admitting to voyeurism, transvestism, sex with animals, and other deviant or unusual practices. This research limitation could severely restrict the possibilities of obtaining significant relationships for this topic.

Validity coefficients for immoral sexual behaviors tended to be insignificant as reported in Table 45. In particular, homosexual behaviors, use of prostitutes and abnormal sexual behaviors were not significantly related to the research constructs. There is, however, a moderately strong relationship between the married applicant's tendency toward adultery and the responsibility construct. Significant relationships also were found between single applicants who dated married persons and each of the three constructs. Multiple correlations were approximately .25 for the group of items related to adulterous behavior. Due to sample size differences, other immoral sexual behavior items could not be included in the regression; therefore, the obtained results should significantly underestimate the contribution of this topic.

One of the more significant research limitations affecting this data is the self selection problem and restriction of range. As an indication that HPD's applicant population may not be random for variables representing this topic, consider the male population incidence of homosexual behaviors:

> It is generally accepted by sexologists that 4 percent of all white men are exclusively

> homosexual all their sexual lives, 8 percent are exclusively homosexual for at least three years between the ages of sixteen and fifty-five, and 37 percent have experienced at least some form of overt homosexuality to the point of orgasm. While these data apply to white men, it has been estimated that the percentages are equally pertinent to the American Negro male population (McCary, 1967, p. 218)

Another limitation, the assumption of linearity, also affected the results. Application of the non-linear inverse transformat formula to the items for married applicants resulted in three additional items attaining statistically significant relationships with the responsibility construct: total "number of pers cheated with" (a correlation of .16), total "number of times cheated" (.13) and "months ago last time applicant cheated" (.1

Recommendations and Conclusions: Immoral Sexual Behaviors

Data relating to the applicant's sexual promiscuity appears to have some relationship to the underlying behavioral job constr In particular, an applicant's tendency to "cheat" on his/her spouse or to date married persons should be considered during the selection process. However, since the topic of immoral act ties tends to have adverse impact, it is recommended that thes items be considered in context and not used as the sole reason for disqualification.

Background items relating to homosexuality and abnormal sexual practices did not attain significant validity coefficients. S there was a substantial falsification of items related to sex-

uality (19 percent for homosexual responses and 13 percent for other items) it is possible that immoral sexual behaviors have a much greater significance than attained in this research. Furthermore, there is a probable restriction of range operating on these items: only a maximum of 15.4 percent of the applicants reported any kind of homosexual activity as compared to national estimates of 37 percent of overt male homosexuality.

In summary, the findings do not support the disqualification of applicants due to personal sexual preferences. Only findings for adultery and the dating of married persons attained statistical significance; other abnormal sexual practices were not statistically significant, perhaps as a result of research limitations. Because most sexual abnormalities are related to basic personality structure, it is recommended that the Department consult with a certified clinical psychologist or psychiatrist as to an applicant's suitability for the police officer job when a tendency toward sexual abnormality (deviancy) is displayed.

Driving Record

Driving record background items were classified into three categories: total occurrence of traffic violations, driving problems during the past year and a self rating of how others would evaluate the applicant's driving habits. In addition, two special combinations were constructed for recent driving behavior: 1) sum of number of accidents and number of moving tickets

TABLE 44

DISTRIBUTION STATISTICS FOR IMMORAL SEXUAL BEHAVIOR ITEMS .

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
APPLICABLE TO ALL APPLICANTS				
1. Number of Juvenile Homosexual Acts	403	0.385	2.922	10.2%
2. Number of Adult Homosexual Acts	403	0.561	5.710	5.2%
3. Number of Juvenile Use of Prostitutes	405	0.126	.573	5.9%
4. Number of Adult Use of Prostitutes	404	3.089	12.513	24.5%
*5. Number of Prostitution as Juvenile	405	0.003	.050	0.2%
*6. Number of Prostitution as Adult	405	0.054	.996	0.7%
7. Number of Abnormal Sexual Acts	395	1.089	.285	8.9%
*8. Number of Blackmailable Sexual Acts	394	1.010	.100	1.0%
*9. Number of Illegitimate Children	404	0.154	.424	3.2%
10. Number of Abortions Participated in	401	0.035	.197	13.3%
NOW SINGLE APPLICANTS ONLY				
11. Ever Date Married Person	234	1.128	.491	20.5%
12. Number of Married People Dated	236	0.225	.526	20.5%
13. Number of Times Dated Married Person	234	0.286	.247	20.5%
EVER MARRIED APPLICANTS ONLY				
14. Ever Cheat on Spouse	192	1.354	.596	37.1%
15. Number of Spouses Cheated on	192	0.375	.592	37.1%
16. Number of Persons Cheated with	188	0.830	2.343	37.1%
17. Total Times Cheated	188	1.718	3.612	37.1%
18. Months Ago Last Time	178	5.742	16.303	37.1%
19. Times Cheated with Married Person	179	1.168	.417	15.6%
20. Plans to Cheat in Future	183	1.273	.664	5.0%

*Eliminated due to low variance.

VALIDITY COEFFICIENTS[1] FOR IMMORAL SEXUAL BEHAVIOR ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
APPLICABLE TO ALL APPLICANTS					
1. Number of Juvenile Homosexual Acts	-	-	-	-	-
2. Number of Adult Homosexual Acts	-	-	-	-	-
3. Number of Juvenile Use of Prostitutes	-	-	-	-	-
4. Number of Adult Use of Prostitutes	-	-	-	-	-
7. Number of Abnormal Sexual Acts	-	-	-	-	-
10. Number of Abortions Participated in	-	-	-	-	-
NOW SINGLE APPLICANTS ONLY					
11. Ever Date Married Person	.114*	.167***	.124*	.150**	.136**
12. Number of Married People Dated	.134**	.115*	.116*	-	-
13. Number of Times Dated Married Person	-	-	-	-	-
EVER MARRIED APPLICANTS ONLY					
14. Ever Cheat on Spouse	-	.197****	-	.161**	-
15. Number of Spouses Cheated on	-	.179***	-	.179***	-
16. Number of Persons Cheated with	-	-	-	-	-
17. Total Times Cheated	-	-	-	-	-
18. Months Ago Last Time	-	-	-	-	-
19. Times Cheated with Married Person	-	-	-	-	-
20. Plans to Cheat in Future	-	-	-	-	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
21. Items 14 through 20	R = .147***	.256****	.218****	.211****	-
22. Items 14 through 20 plus Age	R = NS	.312****	NS	.275****	.221****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

received; and 2) sum of number of accidents at fault and numb[illegible] of convictions for moving violations. P.I.C. items pertainin[illegible] to "how long ago" last warning letter, suspension, or probati[illegible] occurred were excluded because of inability of the researchers to properly code those persons who had never received any such disciplinary action.

Item statistics are presented in Table 46. The validity coefficients in Table 47 indicate that a recent history of traffic accidents/violations is important, but that overall traffic history may not be significant or may need moderation [illegible] age or years driving. Traffic items that attained statistical significance include number of moving traffic tickets received during last year and general driving habits. It is important to note that there could be a significant restriction of range effect operating on this topic, since persons with more than t[illegible] moving violations during the past 12-month period were automat[illegible] cally excluded through self selection or at the City of Houston Civil Service office.

Recommendations and Conclusions: Driving Record Background It[illegible]

An applicant's current driving habits and recent traffic record have significant relationships with the related behavioral job constructs and are justified for use during the applicant sele[illegible] tion process. Background items relating to the applicants' "total" (and earlier) driving history were not significant.

TABLE 46

DISTRIBUTION STATISTICS FOR DRIVING ITEMS

	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
EVER OCCURRED				
1. Number of Traffic Tickets	405	3.042	3.074	84.2%
2. Number of Traffic Convictions	405	2.432	2.485	79.0%
3. Number of Tickets not Paid	405	0.141	.490	10.1%
4. Number of Traffic Accidents	405	1.151	1.183	65.7%
5. Number of Accidents at Fault	402	0.450	.684	54.4%
6. Number of Warning Letters	404	0.092	.297	8.9%
*7. How Many Months Ago Received				
8. Number of License Suspensions	405	0.049	.228	4.7%
*9. How Many Months Ago Last				
*10. Number of Probations	405	0.049	.228	4.7%
*11. How Many Months Ago Last				
LAST YEAR BEHAVIORS				
12. Moving Tickets Received	405	0.531	.797	37.3%
13. Convicted Moving	405	0.419	.840	29.1%
14. Number of Accidents	405	0.222	.482	19.3%
15. Number of Accidents at Fault	405	0.091	.313	7.4%
SELF RATING				
16. Driving Habits	404	1.594	.502	
SPECIAL COMBINATIONS				
17. Recent Occurrences (Items 12 and 14)	405	0.753	1.033	
18. Recent Mistakes (Items 13 and 15)	399	0.506	.948	

*Item 10 was eliminated due to overlap with item 8; items 7, 9 and 11 were eliminated because of coding and analysis problems.

TABLE 47

VALIDITY COEFFICIENTS[1] FOR DRIVING ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
EVER OCCURRED					
1. Number of Traffic Tickets	-	-	-	-	-
2. Number of Traffic Convictions	-	-	-	-	-
3. Number of Tickets not Paid	-	-	-	-	-
4. Number of Traffic Accidents	-	-	-	-	-
5. Number of Accidents at Fault	-	-	-	-	-
6. Number of Warning Letters	-	-	-	-	-
8. Number of License Suspensions	-	-	-	-	-
LAST YEAR BEHAVIORS					
12. Moving Tickets Received	.095*	.155****	.115***	.136****	.115**
13. Convicted Moving	-	.081*	-	-	-
14. Number of Accidents	.108**	.135****	.110**	.127***	-
15. Number of Accidents at Fault	-	-	-	-	-
SELF RATING					
16. Driving Habits	-	.081*	-	.094*	-
SPECIAL COMBINATIONS					
17. Recent Occurrences (Items 12 and 14)	.124***	.183****	.140****	.155****	.102**
18. Recent Mistakes (Items 13 and 15)	-	.097*	.090*	-	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
19. Above Items 1 through 16	R = .108**	.217****	.120***	.150****	.297****
20. Above Items 1 through 16 plus Age	R = N.S.	.275****	N.S.	.244****	.349****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

Emphasis should be placed on evaluating recent behaviors (driving habits, moving ticket violations and accidents). If earlier records are obtained they should be used cautiously and considered relative to the applicants' age and driving experience.

Applicant Reservations About Police Work

As part of the preliminary interview, applicants were quizzed as to reservations about joining the Houston Police Department. Table 48 shows the item statistics for each of these items. Validity coefficients in Table 49 show significant construct relationships for willingness to follow orders, for use of firearms, and the possibilities of injuring someone. Age is an important moderator of these variables and should be considered when evaluating an applicant's reservationships about important aspects of the police officer job.

Recommendations and Conclusions: Applicant Reservations About Police Work

Expressed applicant doubts about joining HPD have significant relationships with important job behavior constructs and may be important in the selection of police officers. In particular, strong applicant reservations about the need to follow orders/ work on any type of duties assigned is a significant indicator of the applicant's sense of responsibility. Similarly, very strong reservations about the possibilities of using force, injuring and/or killing someone are also significant predictors. When

TABLE 48

DISTRIBUTION STATISTICS FOR APPLICANT RESERVATIONS ABOUT POLICE WORK

DOUBTS ABOUT JOINING H.P.D.	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
*1. Completing Academy	404	1.052	.254	0.7%
*2. Pay/Hours/Physical Requirements	370	3.041	.418	98.0%
3. Using Force and Firearms	381	2.079	.347	6.5%
4. Injuring Someone	327	2.275	.721	17.0%
5. Enforcing All Laws	392	2.179	.524	15.4%
6. Following Orders and Working on any Duties Assigned	396	2.053	.246	6.4%

*Excluded due to low variance.

TABLE 49

VALIDITY COEFFICIENTS[1] FOR APPLICANT DOUBTS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
DOUBTS ABOUT JOINING H.P.D.					
3. Using Force and Firearms	-	-	-	-	.099*
4. Injuring Someone	-	.114**	-	.119**	.109*
5. Enforcing All Laws	-	-	-	-	-
6. Following Orders and Working on any Duties Assigned	-	.089*	-	.112**	-
MULTIPLE REGRESSION COEFFICIENTS					
7. Items 3 through 6	N.S.	.114**	N.S.	.119**	.109*
8. Items 3 through 6 plus Age		.256****		.265****	.303****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

evaluating an applicant's doubts, age should be considered as moderator; that is, doubts become more significant as applica age increases.

Miscellaneous Beckground Items

Table 50 shows the item statistics for personal background ite relating to applicant age, sex, number of residences during pa five years, involvement in legal suits/grievances, participat in radical group activities and personal references. Validity coefficients for these variables are presented in Table 51.

Applicant Age

Age was found to be significantly related to both the emotional adjustment and responsibility constructs. Due to current HPD age requirements (19 through 35) there is a significant restriction of range effect, since persons outside this age range are disqualified at the Houston Civil Service Department and were not included in this research. An adjustment for this range restriction, therefore, would substantially increase the magnitude of the significant validity coefficients of .17 for respons bility and .25 for emotional adjustment.

Recommendations and Conclusions: Applicant Age

The significant relationship between applicant age and the emotional adjustment and responsibility constructs

indicates that older applicants are to be preferred for employment. The research results also provide some justification for the minimum age requirement of 19.

The research did not attempt to validate the upper age limit of 35. To do so properly would have required additional criterion constructs and a broader age range for applicants. Although it is possible that age is curvilinearly related to current research constructs, such a finding would not be predicted, so the analyses were not performed on this data.

Applicant Sex

For population sex standardized test scales, females were significantly lower than males on the socialization construct. This finding is difficult to interpret. If national female CPI norms are appropriate for the Texas area, then the type of females who applied to the Houston Police Department during the course of this research might not be typical of the population, having greater tendencies toward delinquencies and asocial behaviors. (Due to existing height and weight entrance requirements, female applicants may not be representative of the female population and could have tendencies to certain personality characteristics as a function of physical stature.) Such conclusions would be erroneous if differences were primarily due to

TABLE 50

DISTRIBUTION STATISTICS FOR MISCELLANEOUS ITEMS

ITEMS	Sample Size	Mean	Standard Deviation	Percent S's Having Negative Data
1. Age[1]	405	22.919	3.595	
2. Sex	405	1.094	.292	
3. Number of Residences in Last Five Years	392	2.487	1.825	
LEGAL PROCEEDINGS				
4. Number of Times Sued	405	0.044	.229	4.0%
5. Number of Times Filed Suit	405	0.067	.260	6.4%
6. Number of Grievances Filed	404	0.040	.251	3.0%
RADICAL GROUP ACTIVITIES				
7. Membership	405	0.005	.070	0.5%
8. Meeting attendance	405	0.015	.186	1.5%
*9. In Sympathy with	405	0.0	0.0	0.0%
PERSONAL REFERENCES				
*10. Evaluation for H.P.D.	402	1.144	.646	0.5%
11. Racial Prejudice[1]	403	1.489	.612	45.2%
12. Religious Prejudice[1]	405	1.094	.324	8.5%
13. Other Prejudices (Youth, Sex)[1]	405	1.689	.813	51.2%

*Eliminated due to low variance.

TABLE 51

VALIDITY COEFFICIENTS[1] FOR MISCELLANEOUS ITEMS WITH JOB BEHAVIOR CONSTRUCTS

	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
ITEMS					
1. Age	-	.165****	-	.169****	.253****
2. Sex	.180****	-	-	-	-
3. Number of Residences in Last Five Years	-	-	-	-	-
LEGAL PROCEEDINGS					
4. Number of Times Sued	-	-	-	-	-
5. Number of Times Filed Suit	-	.114**	.082*	.117***	-
6. Number of Grievances Filed	-	-	-	-	-
RADICAL GROUP ACTIVITIES					
7. Membership	.167****	-	.160****	-	-
8. Meeting Attendance	-	-	-	-	-
PERSONAL REFERENCES					
11. Racial Prejudice	-	.123****	.108**	.158****	.180****
12. Religious Prejudice	.160****	.147****	.178****	.165****	.202****
13. Other Prejudices (Youth, Sex)	.130****	.180****	.164****	.209****	.244****
MULTIPLE REGRESSION COEFFICIENTS[5]					
14. Personal References (Items 9, 10 and 11) R =	.176****	.198****	.221****	.230****	.284****

[1]Pearson Product Moment Correlation Coefficients corrected for test scale unreliability (see Appendix I)
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.
*Statistically significant at .05 level of confidence.
**Statistically significant at .025 level of confidence.
***Statistically significant at .01 level of confidence.
****Statistically significant at .005 level of confidence.

small sample size (n = 38 females) or differences in construct meanings because of sex cultures. As planned, such differences were eliminated when test scales (constr. were standardized by sex and race for HPD's applicant sam

Legal Proceedings

Although the number of times an applicant filed grievance against an employer or was sued did not attain significant results, the number of times an applicant filed suit agai other persons was significantly related to the responsibi construct.

Recommendations and Conclusions: Legal Proceedings

Frequency of initiating suits against others was signific and should be investigated by HPD during the applicant eva uation procedure. Incidence of filing grievances or bein sued by others was not significant and should only be use to provide follow-up leads to the background investigator.

Applicant Radical Group Activities

Although a very small percentage of the applicants report any involvement with radical groups, the importance of th topic warranted further investigation. As one might have predicted, an applicant's membership in a radical group (e.g., Ku Klux Klan or Black Panthers) is significantly related to tendencies toward asocial and delinquent beha

Since there is very likely a restriction of range in the research data, the true importance of this topic might be much greater than indicated by the results.

Recommendations and Conclusions: Radical Group Activities

Background items related to an applicant's membership in subversive groups is significantly related to the socialization construct and justifies consideration by HPD of radical group behaviors during the process of selecting future police officers.

Applicant Personal References

The personal reference ratings were previously reported and discussed in a previous subsection of this chapter, along with other emotional stability items. Since these self ratings were developed to simulate actual reference ratings, and since there is reason to suspect that actual references would be better than applicant responses, the validity coefficients in Table 51 support the use of references by HPD when evaluating police officer applicants.

Recommendations and Conclusions: Applicant Personal References

The statistically significant relationships between personal reference ratings and relevant job behavior constructs support the continued use of personal references during the HPD applicant selection process.

Polygraph Examination

Because of the typical controversy that revolves about the polygraph examination, another validation design (i.e., criter related) would have automatically included the polygraph as on of the predictors. The construct validity methodology for thi study used preliminary interview data, which eliminated this possibility. However, the decision to collect additional data for the falsification correction scale presented the opportuni to obtain examples of the types of information that was uncove during the polygraph examination.

Table 52 summarizes some of the applicant comments made either during the polygraph examination or final selection interview. By the nature of these comments, it is clear that most applica statements occurred during the polygraph interview. Only appli cant comments or admissions are cited in the table. It should obvious from the examples that the polygraph is an excellent t for obtaining critical information about applicants, especiall for topics pertaining to commission of serious illegal activit (theft, arson, burglary), drug usage, alcoholic consumption, emotional control, acceptance of bribes and sexual abnormaliti

In addition, the polygraph is a good method for checking diput data between the applicant and his/her references.

TABLE 52

EXAMPLES OF APPLICANT FACTS

OBTAINED DURING BACKGROUND INVESTIGATIONS

AND FROM POLYGRAPH TEST ADMISSIONS

(N = 131)

1. Applicants with prior law enforcement experience:

   Several applicants admitted engaging in sexual intercourse or homosexual activities while supposedly on duty.

   Applicant admitted stealing prisoner possessions.

   Applicant admitted using marijuana.

   Officer admitted stealing maijuana.

   Applicant had been suspended for brutality to prisoners.

   Applicant admitted taking a bribe.

   Applicant had been fired for beating up his wife.

   Applicant admitted being under much tension and stress and requiring drugs to relieve pain from his ulcers.

2. Sexual habits of a recent nature:

   Applicant admitted fondling five-year old next door neighbor.

   Applicant admitted committing oral sodomy on seven-year old.

   Applicant admitted being a male prostitute.

   Applicant admitted having sexual relations with a married woman while her husband slept in the next room.

   Various admissions of homosexuality, transvestism, and adnormal sexual behaviors.

3. Drug usage:

   Many applicants admitted to extreme drug usage.

Applicants admitted to selling illegal drugs.

Applicant's father was an illegal drug transporter and dru; pusher.

4. Theft of a recent nature:

Applicant admitted to committing armed robbery.

Applicant admitted to fraudulently collecting unemployment compensation checks and was apprehended.

Applicant admitted to being the driver at a number of burglaries.

Applicant admitted being involved in a black market ring during his military service.

5. Morals and emotional stability:

Applicant was a wife beater and once "whipped" her with a loaded pistol.

Applicant had a history of alcoholism and three-day binges.

Applicant admitted hiring a person to set fire to his father-in-law's car.

Applicant admitted setting a building on fire while a volunteer firefighter.

Applicant recently attempted suicide.

References said applicants need psychiatric care, should be committed to a mental institution, are extremely violent and brutal, etc.

References revealed extreme prejudice to minorities.

Applicant fought with police once when stopped for a traff: violation.

Applicant gave assumed name to police.

Applicant obtained false I.D. and passed himself off as a police officer.

Applicant admitted to being a gambler by occupation.

Applicant is far behind in debts and was filed on for non-

Applicant admitted having 14 jobs in last 3 years and 5 jc in the last 12 months.

Recommendations and Conclusions: Polygraph Examination

It is recommended that the polygraph examination be retained as part of the applicant screening process. However, the examination needs to be carefully structured; its purpose being limited to certain critical topics and for checking the validity of any data discrepancies which arise. Only topics which have been validated in this research or which have other justification for inclusion in the selection process should be covered by the polygraph examiner. Invasion of applicants' privacy is warranted only when the questioning revolves around relevant job behaviors and focuses on revealing essential information difficult to obtain by other means. Following current Departmental policy, only confirmed lies and serious admissions should be grounds for disqualification by the polygraph examination.

In addition to standardizing the polygraph examination process, it is recommended that polygraph examiners be monitored periodically to ensure applicant rapport and adherence to structured procedures.

Overall Predictability of Biographical Items

The preceding sections have shown the degree to which individual background items and topic areas are correlated with the job related behavioral constructs. It is appropriate now to determine

the relationship between all biographical items and the constructs, by means of multiple regression analysis.

When developing multiple regressions, care must be taken if the number of potential predictors is large. Since this research used over 150 biographical items, there would be a high probability that spurious items could enter the regression equation. To avoid this possibility the following precautions were taken:

1. Only background items which had attained statistical significance in the topic analyses were included.
2. Only items having high relevancy to most applicants were included (e.g., military history, relevant to less than one quarter of the applicant sample, was excluded).
3. Linear scales only were used (i.e., no variable transformations) in the regression analyses.
4. Regression was carried out in a stepwise manner with a variable requiring a significance level of .05 for inclusic

The input to the regression was an intercorrelation matrix of variables and constructs, adjusted for unreliability of the psychological tests used to measure behavioral constructs. Multiple correlations of .63 were obtained with the socialization and responsibility constructs and .67 with the emotional stability construct. The sizes of these correlations indicate that, as a group, the biographical items account for a significant portion of construct variance. The relationship would be

even stronger if research limitations such as falsification, exclusion of important items because of small sample size, restriction of range, nonlinearity, etc., were taken into consideration.

Thus the data strongly justify the use during the HPD police officer screening process of applicant personal history information found to have significant validity by this study.

CHAPTER 8

UTILITY OF BIOGRAPHICAL DATA

It is reasonable to attempt to quantify the overall utility, or effectiveness of including the background investigation as part of the HPD applicant selection process. Since thousands of dollars are spent in the recruitment of applicants and training of cadets, there is a very real economic payoff in refining the selection procedure to the greatest extent possible. Although it was not the purpose of the researchers to establish new criteria for selection, the data already obtained can be used to approximate the extent to which valid personal history items contribute to the selection of effective police officers.

There was not, nor could there be, direct measurement of the relationship between personal history items and job performance since current police officers had very little negative information in their personal history files. For a utility analysis, therefore, it is necessary to assume that the relationship between the Preliminary Interview Checklist (P.I.C.) background items and job performance constructs (i.e., the multiple correlation of .63) is in fact the relationship between the P.I.C. and job performance.

When applicants are screened by using a "test" or other device which correlates with job performance, then those individuals so selected will have a higher average level of job performance

than a sample of applicants selected without benefit of the valid devices. It is self evident that the more intensely applicants are screened (or the higher the selection ratio), the greater the expected increase in average job performance. To estimate this increase, psychometricians typically use the Taylor-Russell Tables (Guion, 1965).

A validity coefficient measures the predictive value of a test, or in the present study, of the personal items considered in the P.I.C. That is to say, when applicants are screened using a device which predicts or correlates with job performance, then the level of job performance would be higher than it would have been without such screening.

The Taylor-Russell Tables express the relationship between *a priori* job performance and average job performance after implementation of a screening device for a given validity coefficient and a given intensity of selection (i.e., selection ratio). The present case is somewhat different, in that the researchers have only been able to observe *a posteriori* job performance after selection using the personal history data. Nevertheless, the same reasoning used in development of the Taylor-Russell Tables allowed the researchers to take a Bayesian approach and to estimate the difference that could be expected in job performance if personal background investigations had not been performed in selecting current HPD officers.

In order to carry out this analysis the following data must be known or assumed:

1) The validity coefficient of the Preliminary Interview Checklist (P.I.C.) with job performance;
2) The intensity of selection (selection ratio) caused by using P.I.C. data; and
3) The proportion of current HPD officers in entry level positions who are regarded as "good" (average or above average in performance) police officers.

The P.I.C. validity coefficient is assumed to be .63 (based on the multiple regression results). From applicant data the selection intensity for P.I.C. variables has been calculated to be approximately .2; that is, about 80 percent of applicants who would otherwise be eligible for employment with HPD are rejected on the basis of negative personal history data. The proportion of "good" police officers is assumed to lie between 50 percent and 80 percent, based on the officer performance evaluations conducted as part of this research (see Volume VII).

As shown in Table 53, when the proportion of "good" police officers is assumed to lie between 50 percent and 80 percent after being screened by P.I.C. items, data from the Taylor-Russell Tables estimate the range of "good" officers at between 19 percent to 43 percent, if no selection had been made relative to P.I.C. items. In other words, the effect of using personal

TABLE 53

CALCULATION OF PROPORTION OF "GOOD" POLICE OFFICERS ATTRIBUTABLE TO PERSONAL BACKGROUND DATA*

PROPORTION OF "GOOD" OFFICERS		
Personal History Is Used In Selection	Estimated Effect Of Not Using Personal History	Improvement Or Percent Difference
50%	19%	31%
60%	26%	34%
70%	34%	36%
80%	43%	37%

* Assumes selection intensity (selection ratio) of .2 and a validity coefficient of .63.

history data is to increase the proportion of "good" police officers by between 31 percent and 37 percent.

Admittedly these calculations are approximations; yet, they do demonstrate that there is likely to be a rather large gain to the Houston Police Department by using background history data when screening applicants. Assuming that the impact of the background data is a 35 percent improvement in "good" officers, then it is possible to quantify this gain in terms of dollars.

Two methods for estimating the value of "good" police officers are by: 1) computing costs associated with the hiring and training of new officers, and 2) intrinsically establishing a value for public goodwill and good performance. This second method is impossible to do objectively but could include costs associated with all types of officer misbehaviors (i.e., vehicle accident repairs or excessive maintenance costs, time spent investigating justified citizen complaints against officers, dollar value of lost or damaged personal property due to officer negligence, damages caused by a riot which could have been prevented, etc.)

The first method, though limited in scope, is easier to calculate because of known dollar costs. The costs for hiring and training each new Class A police officer have been defined as all expenses that occur for recruiting (travel expenses and recruiter salaries), screening (personnel salaries, background

investigator travel expenses and capital expenses), academy training (academy instructor salaries, cadet salaries, expenses and capital costs), and probationary training (probationary officer salaries and instructor costs). As shown in Appendix J, if this total is divided by the number of new officers produced the cost equals approximately $20,000 per police officer, excluding capital expenses. In other words, the public invests about $20,000, primarily in salary expenses, to obtain one police officer. If this officer is a substandard performer, then not only the initial investment but also the annual salary paid thereafter are not well spent.

Approximately 250 new officers join the force each year. Assuming that the net effect of selection attributable to personal background data is to increase the proportion of good performers by 35 percent, then an additional 87 "good" performers would be hired based on personal history data and background investigations. These additional 87 officers should justify their recruiting and training costs, as well as their salaries, and result in a net gain in dollars well spent to the Houston Police Department and the public of more than $1.7 million per year.

The foregoing should be taken as an approximation only, due to the nature of the assumptions made. On the other hand, it is interesting to carry the analysis further in order to estimate the effects of selection by Personal Inventory Checklist topic areas. However, such an analysis by topic area cannot be

completed in a rigorous manner and should be interpreted with caution.

The estimated correlation between the P.I.C. and police officer job performance is .63. Because the P.I.C. may be considered as a collection of topic areas, one method of apportioning the total effect of P.I.C. "predictability" would be according to the relative magnitudes of the squared multiple correlations of the individual topic areas. Inasmuch as not all topic areas are relevant to all applicants, further factoring can be carried out according to the proportion of applicants to which a topic area applies (e.g., military items only apply to about one-quarter of the sample).

This procedure has been carried out and is shown in Appendix K. The results of the calculations are presented in Table 54. The data indicate that 1) personal references/emotional stability, 2) employment history/references, 3) general education behavior, 4) financial credit history, and 5) admitted theft activities all account for substantial (in excess of $150,000) portions of the estimated total annual increase in dollars well spent of $1.7 million.

It would also be possible to further partition the efficient use of funds per topic area into contributions for individual background items; however, this "third-level" breakdown would be extremely hypothetical and in all likelihood would not yield meaningful results.

TABLE 54

ESTIMATED WELL-SPENT DOLLAR INCREASE PER YEAR

ATTRIBUTABLE TO MAJOR BACKGROUND HISTORY TOPICS

TOPIC AREA	WELL-SPENT DOLLARS PER YEAR
Emotional Stability/Personal References	$355,300
Employment History/References[1]	251,600
General Educational Behaviors	176,800
Financial/Credit History	168,300
Admitted Theft Activities	158,100
Driving History	137,700
Criminal Behaviors	110,500
Marital Stability[1]	78,200
Military Record[1]	64,600
Drinking Habits[1]	57,800
Drug Usage	42,500
Radical Group Membership	50,800
Admitted Immoral Behaviors[1]	35,700
Doubts About the Job	22,100
	$1,700,000

[1] Contribution of topic was reduced proportionate to applicability of results.

CHAPTER 9

SUMMARY AND CONCLUSIONS

The purpose of this investigation was to determine which of th Houston Police Department's background investigation and personal characteristic job requirements are valid. Since the mo frequently used and somewhat simpler validation designs were n appropriate for this research, a rather complex criterion-cons validation model was developed by the researchers. Briefly, th model consisted of identifying job-related behavioral dimensio selecting personality test scales which measure the job dimens collecting both test and background data on a sample of applicants; and using the personality test constructs as criteria i criterion validity study with background history items as predictors.

Based on a comprehensive job analysis and review of research l erature, three critical behavioral job dimensions were selecte for use in the model briefly described above. These three construct criteria are: sense of responsibility/ irresponsibilit socialization/asocial behavioral patterns; and emotional adjustment/maladjustment. Relying on psychological test literature and research, the CPI-Socialization Scale was chosen to measur the socialization job dimension, the CPI-Responsibility Scale to measure the responsibility dimension and a factor score composed of emotional stability variables from the CPI, MMPI, GZ and DFOS Tests to measure the emotional adjustment job dimens

To determine whether or not the selected test construct scales are actually job related, five special analyses were performed which concluded that: 1) the test construct scales have both construct and criterion related validity and do measure what they purport to measure; 2) compared to other occupational norms, police officers score significantly higher on each of the three construct scales; 3) accepted applicants scored higher on each scale than rejected applicants; 4) current HPD officers had higher socialization, responsibility and emotional adjustment scores than rejected applicants; and 5) in a criterion validity study the three test constructs were found to be significantly related to current police officer job performance.

Applicant personal history data then was correlated with the job related test constructs on three different levels. First, all important background items were regressed against the constructs. The resulting multiple correlation of .63 demonstrates that an applicant's personal history data can make an important contribution to the selection of police officers. Furthermore, a utility analysis revealed that information obtained during the background investigation process contributes significantly to selection of "good" officers. Specifically, elimination of the personal history investigations might result in a lowered quality of officer personnel and subsequently in a lower level of performance at a conservatively estimated cost equivalent effect of $1.7 million/year.

The next level of analyses considered the overall contribution of each background topic area. For each topic, the resulting multiple correlations were statistically significant for at least two of the test constructs. In general, the findings support continued use in the selection process of such topics as: criminal records, military history, educational history, employment history and references, financial and credit behaviors, drinking habits, drug usage, admitted criminal behaviors, family instability, admitted "immoral" behaviors, driving history, radical group behaviors, personal references and personal doubts about entering law enforcement. The utility analysis for these background history topics estimates that most topics could make a contribution amounting to $40,000 per year or more.

The third level of analysis investigated over 150 specific questions asked during applicant personal history investigations. These validation findings can be divided into two categories: 1) items which attained statistical significance and are important to the selection process and 2) items which evidenced little or no validity for selecting applicants.

1. Significant Background Items

A number of background items were found to be significantly related to the criteria and definitely should be considered during the applicant evaluation process. Normally these

CHAPTER 1

INTRODUCTION

This volume is one in a series of eight which describe an exhaustive research study of the Houston Police Department's job requirements, hiring practices, Academy training effectiveness and promotional procedures. Volume V of this series reviewed each Class A police officer selection requirement as to adverse impact, job relatedness and justification via legal, precedent, business necessity or research findings. (Data covered in this volume, therefore, have been summarized previously in Volume V.)

The purpose of this volume is to present information on the validation of Class A police officer selection standards of a non-physical nature. The validation study of physical job requirements (i.e., height, weight, vision, health, etc.) is reported in Volume VI. Thus, this volume only reports on the validity studies of personal characteristic variables evaluated during the applicant investigation, i.e., the preliminary interview, background investigation, polygraph examination and final interview. Topics under the purview of this research include requirements pertaining to applicant age, education, employment history, driving record, military record, financial history, marital stability, criminal record, subversive activities, drinking habits, drug use, immoral behaviors, illegal behaviors, emotional adjustment and references.

The next level of analyses considered the overall contribution of each background topic area. For each topic, the resulting multiple correlations were statistically significant for at least two of the test constructs. In general, the findings support continued use in the selection process of such topics as: criminal records, military history, educational history, employment history and references, financial and credit behaviors, drinking habits, drug usage, admitted criminal behaviors, family instability, admitted "immoral" behaviors, driving history, radical group behaviors, personal references and personal doubts about entering law enforcement. The utility analysis for these background history topics estimates that most topics could make a contribution amounting to $40,000 per year or more.

The third level of analysis investigated over 150 specific questions asked during applicant personal history investigations. These validation findings can be divided into two categories: 1) items which attained statistical significance and are important to the selection process and 2) items which evidenced little or no validity for selecting applicants.

1. Significant Background Items

A number of background items were found to be significantly related to the criteria and definitely should be considered during the applicant evaluation process. Normally these

items are only indicative of relevant job behaviors and should be confirmed by data from other items and/or topics. However, extreme information for any of these variables could in itself be grounds for applicant rejection. A listing of all these significant items by construct are summarized in Table 55.

Overall, these research findings did not identify any single background item with sufficient validity to independently justify the rejection of police officer applicants. When validation results are tempered by logic, however, it is obvious that certain types of background data are sufficient to result in automatic rejection. A summary of these logical, personal characteristic disqualification variables include:

- minimum age of 19;
- must not have received more than two moving traffic violations in the preceding 12-month period;
- no D.W.I. or D.U.I.D. convictions;
- must have high school diploma or equivalent;
- no serious military convictions;
- must not be an alcoholic or drug addict;
- must not have committed any serious acts as an adult (i.e., engaged in felony behaviors but was not apprehended);
- no serious mental illness or emotional problems;
- must not have made any serious, purposeful lies during the selection process.

TABLE 55

SUMMARY OF VARIABLES SIGNIGICANTLY RELATED

TO JOB PERFORMANCE CONSTRUCTS

	Job Constructs		
	Socialized Behaviors	Sense of Responsibility	Emotional Adjustment
CIVILIAN CRIMINAL BEHAVIORS	✓	✓	✓
Juvenile Arrests/Convictions	✓	✓	
Adult Arrests/Convictions	✓		✓
Misdemeanor Arrests/Convictions	✓	✓	✓
Felony Arrests/Convictions		✓	
All Arrests	✓		✓
All Convictions	✓	✓	
MILITARY HISTORY	✓	✓	✓
Reenlistment & Discharge Codes	✓	✓	✓
Number of Article 15's	✓		
Military Adjustment Rating	✓		
EMPLOYMENT HISTORY	✓	✓	✓
Currently Employed	✓	✓	
Employment Tenures	✓	✓	✓
Why Leave Last Job	✓	✓	
Times Fired	✓		
Times Quit/No Notice	✓	✓	✓
Eight Employer Reference Ratings	✓	✓	✓
Peer Ratings	✓		
HIGH SCHOOL HISTORY	✓	✓	✓
Highest Grade Attained	✓	✓	✓
High School Grades	✓	✓	
High School Probation	✓	✓	
High School Attitude	✓	✓	✓
COLLEGE HISTORY	✓	✓	✓
Ever Attend College	✓	✓	✓
Number Law Enforcement Courses	✓	✓	✓
Number Dropout of School	✓		
Number Courses Failed	✓		✓
Overall Grade Average	✓	✓	✓
Type Degree Attained	✓	✓	✓
Attitude Toward Studies	✓	✓	✓
Percent Financially Self-supported	✓	✓	✓

Table 55 (Continued)

	Job Constructs		
	Socialized Behaviors	Sense of Responsibility	Emotional Adjustment
SOCIAL BEHAVIORS			
Ever Establish Credit	✓	✓	✓
Age Financially Independent	✓	✓	✓
Number of Bounced Checks		✓	✓
Current Financial Condition	✓	✓	✓
Credit Bureau Rating	✓	✓	✓
No Accounts Behind One Month+		✓	✓
Months Behind on Worst Account	✓	✓	✓
No Repossessions		✓	✓
No Credit Refusals	✓	✓	✓
EMOTIONAL CONTROL			
Ever Psychological Problems	✓		
Have Active Temper	✓	✓	✓
Times Lost Temper/Year		✓	✓
Number of Fights as Adult	✓	✓	
Number of Times Hit Spouse			✓
PREJUDICES	✓	✓	✓
Racial Prejudice Ratings	✓	✓	✓
Religious Prejudice Ratings	✓	✓	✓
Other Groups	✓	✓	✓
DRINKING HABITS	✓	✓	✓
Average Drinks/Week		✓	✓
Times Drunk/Year	✓	✓	✓
Times DWI/Year	✓	✓	✓
Times High/Year	✓	✓	✓
Times Drive While High/Year		✓	✓
DRUG USAGE (NON-LINEAR)	✓	✓	✓
Marijuana Use	✓		
Hard Drugs	✓	✓	
Recency of Use	✓	✓	✓
ADMITTED THEFTS	✓	✓	✓
Times Stolen		✓	✓
Purchased Stolen Goods		✓	
Recency of Thefts	✓	✓	✓
MARITAL STABILITY	✓	✓	✓
Ever Married			✓
Times Hit Spouse			✓
Amount Argue with Spouse		✓	
Ever Cheat on Spouse		✓	

Table 55(Continued)

	Job Constructs		
	Socialized Behaviors	Sense of Responsibility	Emotional Adjustment
IMMORAL BEHAVIORS	✓	✓	
Date Married Persons (Single Applicant)	✓	✓	✓
No Married Persons Dated	✓	✓	
Ever Cheat on Spouse		✓	
Number of Spouses Cheated On		✓	
DRIVING BEHAVIORS IN LAST YEAR	✓	✓	✓
No Moving Tickets	✓	✓	✓
No Accidents	✓	✓	
Rating of Driving Habits		✓	
RESERVATIONS ABOUT POLICE WORK		✓	✓
Using Force			✓
Injuring Someone		✓	✓
Following All Orders		✓	
MISCELLANEOUS			
Applicant Age		✓	✓
Times Sued Others	✓	✓	
Radical Group Membership	✓		

If the rationale for attributing such importance to these variables is not apparent, the reader should refer to Volume V which reviews the reasoning process in addition to reviewing federal and state statutes, legal precedent, and other research findings from independent studies of police officer job requirements. Further, the next chapter in this Volume presents a readability analysis of HPD Academy reading materials which confirm the educational degree conclusions.

2. Insignificant Background Items

Several research variables did not attain statistically significant validity coefficients. Although these variables could in fact be related to important job behavioral characteristics or justified by other considerations, this research cannot support the use of the following items for rejecting applicants:

- having an unfavorable military draft code (this is probably a moot point since abolition of the draft);
- current marital status (too few subjects were separated or divorced to adequately study this topic);
- having a prior history of separations or divorces;
- having been sued;
- having filed a grievance against a former employer;
- having a legal abortion or illegitimate children;
- having engaged in "immoral" sexual behaviors other

than adultery (the restriction of range problem appeared to have affected the abnormal sexual behavior items).

Since these items have not been validated, research fi di cannot be cited to justify them as reasons for disqualify applicants. Nevertheless, they might result in important leads for further pursuit by the background investigator. Whereas an unfavorable draft code itself may not be disqualifying, a follow-up probe which revealed significant mental or physical problems might justify such a rejection. Similarly, probes into prior marital difficulties might reveal applicant tendencies toward violence, hostility, prejudice or adultery. Because of the disproportionate impact of items relating to immoral acts and separation fr spouse, such data must be supported by other means to just fy collection and evaluation during the applicant selecti process.

CHAPTER 10

READING GRADE LEVEL OF TRAINING AND PROMOTIONAL MATERIALS

Introduction

As a part of their Academy training and normal duties, Houston Police Department officers must read and understand a variety of written materials. While in the Academy, cadets read both required and supplementary materials which they must comprehend in order to progress through the Academy. As sworn officers, there is a constant flow of written material which must be understood in order to perform daily duties in a satisfactory manner. (See Volume IV for clarification of officer job duties and requirements.) Finally, promotion through the ranks of the Department depends on the ability to read and comprehend those written materials listed as pre-requisite reading for the promotion exams.

The degree of comprehension of written material depends on two factors: 1) the ability of the individual to comprehend written material and 2) the reading difficulty level of the written material itself (henceforth referred to as its readability). Determining the readability of written materials is important in that reading level is closely related to the last grade reached in school (Dale, 1954). That is, a person with a high school education (12th grade) should be able to read and comprehend written material judged to be at the 12th

grade equivalent of readability.

The determination of written material readability, or reading difficulty level, is a problem that has been attacked from many perspectives - all of which are valid to some extent. Most experts agree that the three main variables used to predict readability are vocabulary load, sentence structure, and human interest (Lorge, 1944). Lorge further subdivides these three basic variables. Vocabulary load has been operationalized as: number of consecutive words; percentage of different, infrequent, uncommon, or hard words; percentage of polysyllabic words; some weighted measure of vocabulary difficulty; vocabulary diversity (related to percentage of different words); number of abstract words; and number of affixed morphemes (prefixes, inflectional endings, etc.). Sentence structure or style has been interpreted as: percentage of prepositional phrases; percentage of indeterminate clauses; number of simple sentences; and average sentence length. Human interest has been based on: number of personal pronouns; number of words expressing human interest percentage of colorful words; number of words representing fundamental life experiences; and number of words usually learned early in life (Lorge, 1944).

There is another class of variables that, while much more difficult to quantify, must be taken into consideration when analyzing the readability of materials. These variables are a combination of psychological and situational variables. They

are, in probable order of importance: motivation to read the material; interest in the material; familiarity with the basic vocabulary of the material (especially important when reading technical material); distractions in the external environment; and fatigue.

This lengthy and varied list of variables affecting readability is presented in order to indicate the complexity of evaluating the Department's reading material. There is no single, 100 percent accurate method of determining the exact reading difficulty level of a given set of written materials. A search of the relevant literature revealed no less than fifteen different methods for ascertaining the readability of written material - all of which have been used and found to be more or less successful.

After a careful examination of the available tehcniques, three methods of determining readability were chosen. As each method emphasizes one or two aspects of readability to the exclusion of others, it was reasoned by the researchers that the use of three methods would provide a more comprehensive and precise picture of the reading difficulty of a given piece of written material than any single method. The three methods chosen were: The Dale-Chall Formula, the SMOG Reading Index, and the Lorge Readability Index. Each of the three methods chosen is based on a combination of different variables. The Dale-Chall Formula, the most efficient indicator of readability of the three formulas used, is based mainly on two variables:

average sentence length and percentage of unfamiliar words. The SMOG Reading Index is based solely on the number of polysyllabic words in the sample; and the Lorge Readability Index is based mainly on the three variables of average sentence length, ratio of prepositional phrases, and ratio of hard words. These three readability formulas were chosen to encom and deal effectively with the salient characteristics of the written material of interest in this study. An examination o the written materials involved in this study revealed that th majority of material utilized a large technical/legal vocabulary. All three readability formulas chosen are based, at least partially, on some measure of vocabulary (i.e., the Dale-Chall considers percentage of unfamiliar words; the SMOG is based exclusively on number of polysyllabic words, and the Lorge examines the ratio of hard words).

Police Academy Reading Materials

A list of both required and supplementary reading materials was obtained from the Houston Police Academy. This list was inclusive of all reading material in use at the Academy as of October 1975.

A standardized format was developed for obtaining samples of written material from each of the sources listed (see Appendix It is generally recommended that three samples be obtained fr a source to assure a representative sample of the material in

that source (Lorge, 1944; McLaughlin, 1969; and Fry, 1968). In this case, however, five samples were taken to insure a truly representative sample of the material in each volume.

The only reading materials used in the Police Academy that were not subjected to a readability analysis were assorted Academy handouts. Most of these materials were in an outline format and were to be used in conjunction with lectures. As such, they were not considered suitable for readability analysis.

Each of the three readability formulas was applied to the Police Academy reading materials. Results for the readability formulas are presented in Table 56 in order of precision, with the Dale-Chall being the most precise, followed by the SMOG and Lorge, respectively. Readability levels for the Dale-Chall Formula range from a 7th or 8th grade level to beyond the level for college graduates. Further, two of the five required readings had a Dale-Chall Formula at the college graduate level (i.e., Texas Penal Code and Texas Motor Vehicle Laws). The less precise SMOG and Lorge resulted in a top grade level of 13.6 and 12.0, respectively, for the same required reading materials. Since the reading materials are probably new to the Academy cadets, these findings may be too conservative. That is, cadet lack of familiarity with the technical/legal jargon used in these reading will affect their ability to read and comprehend the material; it may be even *more* difficult for them than indicated by the Dale-Chall score.

TABLE 56

LIST OF HOUSTON POLICE ACADEMY

READING MATERIALS AND THEIR READABILITY INDICES

	Grade Level		
Required Reading	Dale-Chall Formula	SMOG Reading Index	Lorge Formula
HPD Rules Manual, February 1973	11-12	10.4	7.3
Texas Penal Code, 1973	16+	12.2	12.0
Texas Motor Vehicle Laws, 1973-74.	16+	13.6	10.1
Police Patrol: Tactics and Techniques. By Thomas F. Adams, Prentice-Hall, 1971.	11-12	9.8	7.5
How to Recognize and Handle Abnormal People. By Robert A. Matthews and Lloyd W. Rowland, The National Association for Mental Health, 1974.	7-8	7.6	5.4
Supplementary Reading			
The Law, The Supreme Court, and the People's Rights. By Ann Fagan Ginger. Barron's Educational Series, 1974.	11-12	10.6	7.4
Field Interrogation. By Allen P. Bristow. Charles C. Thomas (Pub.), 1964.	13-15	9.6	8.2
The Meaning of the Constitution. By Angela Roddey Holder. Barron's Educational Series, 1974.	11-12	11.4	7.6

Nevertheless, it is obvious from this data that cadets must have at least a 12th grade readability level to be able to comprehend all the required Academy material. More likely, the true readability is between 13.6 and college graduate levels, particularly for the Texas Penal Code and Texas Motor Vehicle Laws.

Another method of establishing an overall grade level equivalent for the Academy materials is to consider the readability level for each sample of training material that was analyzed. A distribution of 15 readability indices (5 samples per source, each sample analyzed by the Dale-Chall, SMOG and Lorge indices) are presented in Table 57 for each textbook. As these results clearly indicate, if cadets are expected to be able to read and comprehend 90.8 percent of the Academy material, they should be able to read at the third to fourth grade college level. If only 72.5 percent comprehension is required, then the effective reading grade level could be that of a high school graduate.

Promotional Reading Materials

In order to obtain representative reading materials for promotional exams for both Class A and Class B and C positions, source lists of reading materials for the last five years were obtained. A table was constructed using the volumes included in these lists, as well as the year(s) used, title of position for which the source was required reading, and the specified

TABLE 57

DISTRIBUTION OF READABILITY INDEX FREQUENCIES FOR FIVE READING SAMPLES AND THREE READABILITY MEASURES FOR THE EIGHT ACADEMY TEXTBOOKS

	Texas Penal Code	Texas Motor Vehicle Laws	Police Patrol: Tactics & Techniques	How to Recognize and Handle Abnormal People	The Law, Supreme Court, and the People's Rights	Field Interrogation	The Measuring of the Constitution	Houston Police Department Rules Manual	Total	Percent	Cumulative Percent
6th or Below											
6th - 7th grade			1	8	1		2	3	15	12.5	12.5
7th - 8th grade			3	2	3	3	4	1	16	13.3	25.8
8th - 9th grade	1	2	2	2	1	2	1	2	13	10.8	36.6
9th - 10th grade			2	3	3	2	2	3	15	12.5	49.1
10th - 11th grade	2	1	2		1	2	2	1	11	9.2	58.3
11th - 12th grade	1	4	1		4	4	2	1	17	14.2	72.5
12th - 1st year college	3	2			1			1	7	5.8	78.3
1 - 2 years college	1						2	1	4	3.3	81.6
2 - 3 years college	2	1	4			1		1	9	7.5	89.1
3 - 4 years college		1			1				2	1.7	90.8
Beyond college graduate	5	4				1		1	11	9.2	100.0

chapters if the entire volume was not required (see Appendix M). A volume was chosen from this table for readability analysis if it was on the Department's required promotional reading list for at least two different years for any given position. Two different sources that met these criteria were chosen for each of the classified positions. For the Class B and C positions one volume per position was chosen for readability analysis (see Table M3 in Appendix M for the volumes chosen for readability analysis by this method). Five samples of written material were taken from each of the promotional reading materials following the same procedure used with Academy material (see Appendix L).

The three readability formulas were then applied to the promotional reading material. As with the Academy material, each volume of the promotional reading material was examined in regard to its reading grade level (as indicated by the three formulas. Table 58 shows the resultant grade levels for Class A positions. Clearly, the Dale Chall indices for Class A positions are in the college range, with five out of fourteen at the college graduate level. Similarly, the results for the Class B and C positions place the Dale-Chall indices at the college level, with two out of six at the college graduate level (see Table 59).

Caution must be exercised when interpreting these results because officers must wait at least two years before being

TABLE 58

SAMPLE OF HOUSTON POLICE DEPARTMENT PROMOTION MATERIAL

FOR CLASS A POSITIONS AND THEIR READABILITY INDICES

	Grade Level		
	Dale-Chall Formula	SMOG Reading Index	Lorge Formula
Community Relations and Riot Prevention	13-15	11.0	8.5
Municipal Police Administration	13-15	11.4	8.1
Criminology	16+	11.4	8.8
Administrative Action	13-15	10.4	8.0
Crime, Correction, & Society	16+	10.4	8.8
Fundamentals of Criminal Investigation	11-12	9.0	7.4
Supervision of Police Personnel	13-15	9.6	7.5
Police Supervision: Theory and Practice	16+	10.2	8.5
Basic Law Enforcement	16+	10.0	9.0
Police Administration	13-15	11.0	8.5
Police Personnel Administration	13-15	10.6	8.2
Supervision in the Administration of Justice	13-15	10.4	8.7
Rules Manual HPD	11-12	10.4	7.3
Texas Penal Code	16+	12.2	12.0

CONTINUED

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TABLE 59

SAMPLE OF HOUSTON POLICE DEPARTMENT PROMOTION MATERIAL

FOR CLASS B AND C POSITIONS AND THEIR READABILITY INDICES

	Grade Level		
	Dale-Chall Formula	SMOG Reading Index	Lorge Formula
Electronic Fundamentals for Technicians	16+	9.2	8.4
Radio Operator's Q & A Manual	16+	9.2	8.4
An Introduction to Toolmarks, Firearms, and the Striagraph	11-12	9.4	7.5
Gradwohl's Legal Medicine	13-15	10.4	8.1
The Science of Fingerprints	13-15	9.4	8.0
Practical Fingerprinting	13-15	9.4	8.8

eligible to take a promotional examination. During that two-year period, officers become very familiar with the technical legal jargon that is used in the law enforcement field. This familiarity with the "official vocabulary" increases their ability to read and comprehend police-related written materia Therefore, while a volume may have a readability index of college graduate (16+), the experienced officer will probably be able to obtain a working knowledge of the material due to his familiarity with the terminology. For all practical purposes, then, such a volume would have a reading difficulty level somewhat lower than what is indicated by the Dale-Chall indices.

Discussion and Conclusions

The readability equivalent grade levels for both the Academy and promotional reading materials primarily range from eighth grade through college graduate. As the minimum requirement, therefore, all applicants should be able to read at least at the 12th grade level, and more reasonably at a level above that of the average high school graduate.

The obvious importance of reading skills to success in the Academy and to career progress in the Department have a numbe of implications for selection and training. First, it appear that the requirement of a high school education by the Houst Police Department is justified. This opinion is based on the readability indices of a sample of reading materials conside

to be representative of that to which both the Academy cadet and the commissioned police officer are exposed in the line of duty.

Second, because of the importance of reading skills, the Department should install some measures of reading ability to be used in the screening of job applicants. Unless such a measurement has been validated for this purpose in prior research, it is recommended that a readability test be selected and administered experimentally to all cadets until it can be validated against Academy performance criteria.

And third, the Department should consider remedial reading programs and simplification of training course materials when feasible. In particular, the Department might initiate or support the development of simplified versions of the most difficult source materials, i.e., the Texas Penal Code and Texas Motor Vehicle Laws.

In conclusion, it should be noted that these findings are substantiated by an independent research study sponsored by the Texas Commission on Law Enforcement Officer Standards and Education, 1976. This study used the FOG Readability Index to determine the readability of materials used in training municipal police officers throughout the State of Texas. The readability analysis covered 10,000 pages of separate reading material from which a total of 475 samples of 100 words or more text were selected for analysis. The average readability

index of the material was found to be at the 15.84 grade level. Further, only 22.7 percent of the material analyzed was found to have a readability index below the 12th grade equivalency.

LIST OF REFERENCES

A comprehensive bibliography that includes all reference sources reviewed during the conduct of the study and cited in this volume is presented in Volume I of this report.

GLOSSARY

Construct: A concept or theory devised to integrate in an orderly manner the diverse data about a phenomenon.

Construct Validity: A measure of the relationship between a test or measure and a psychological construct or concept.

Correction for Unreliability: The statistical process for estimating a population correlation coefficient given that one or both variables are subject to errors of measurement. (i.e., unreliability)

Correlation Coefficient: A number, ranging between -1.0 and +1.0 that indicates the degree of linear relationship between two variables. Correlation coefficients close to -1.0 indicate strong inverse linear relationships, while coefficients close to +1.0 indicate strong direct linear relationships.

Criterion (criteria): The standard(s) used to validate a psychological test or measure.

Criterion Validity: A measure of the relationship between a test or measure and a performance criterion.

Factor Analysis: A mathematical procedure for reducing the complexity of a group of variables by creating a smaller number of "factors" which combine the information contained in related variables.

Factor Loading: The correlation between a single variable and the factor.

Inverse: For a variable X ($X \neq 0$), the quantity $\frac{1}{X}$.

Linear: A relationship between two or more variables such that a fixed increment in one results in some other fixed increment in the rest no matter what the values of the variables.

Logarithm: For a number X ($X > 0$), the logarithm of X is that number y satisfying the equation $X = 10^{y}$.

Mean: The average value; the sum of a group of observations divided by the number of observations.

Multiple Correlation Coefficient: Same as correlation coefficient, except that more than two variables are involved in the relationship.

Multiple Regression Analysis: A statistical procedure whereby the value of a variable is predicted by the values of several other variables when all variables are measured on the same individual.

Null Hypothesis: In statistics, a hypothesis is assumed to be true unless the weight of evidence indicates likelihood that it is not true.

Phi Coefficient: Same as correlation coefficient, except that each variable assumes only two values.

Population: In statistical terminology, the totality of possible subjects whose characteristics could be observed.

Reliability Coefficient: A measurement of repeatability of measurement of a variable usually expressed by means of a correlation coefficient.

Restriction of Range: A phenomenon that tends to reduce the observed correlation between variables relative to the population correlation when a portion of the population is not able to be observed.

Sample: A subset of a population, usually chosen in accordance with some rule.

Significance Level: In testing a null hypothesis, the probability that the results obtained could occur given the truth of the null hypothesis. A significance level of .05 means that under the null hypothesis, results as extreme as those obtained would occur less than one time out of twenty.

Standard Deviation: A measure of the dispersion of a group of values, representing the average distance of the values to the mean.

t test: A statistical test of a null hypothesis that the means of two groups of observations are equal.

Taylor-Russell Tables: Tabulated results indicating the gain in average job performance to be expected when a job related test is used in applicant selection.

Transformation: Changing of data to a new scale of measurement, such as by taking the logarithm of each value.

Validity: The degree to which a psychological test or measure is actually related to the criterion or whatever it is intended to measure.

Validity Coefficient: If quantitative scores are available on both the test or measure and the criterion, a coefficient of relationship (correlation coefficient) between the test scores and criterion scores.

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APPENDIX A

COPY OF PRELIMINARY INTERVIEW CHECKLIST FORM

INTRODUCTION

1. Greetings: Hello, how are you today, ...

2. Purpose of initial interview

   a. To find out about you in general and specifically in the last ten years

   b. Many questions are of a personal nature

      - Not trying to embarrass you
      - Will be kept completely confidential
      - Is necessary to evaluate your qualifications
      - Is necessary to get information to aid in background investigation

   c. You may be asked the same or very similar questions later during a polygraph test, so we would like to stress that you answer all questions honestly.

      1) If you are processed further after the initial interview, we will be contacting your previous employers, schools, friends and others who can provide information about you when we conduct a very thorough background investigation. You may also be asked to take a polygraph exam; therefore it is extremely important that you answer all questions honestly.

3. Questions

   a. Now, do you have any questions?

   b. Answer questions

   c. If there are no (further) questions, we will begin the interview.

   d. Let me stress once again that you will be subject to a thorough background investigation, so answer all questions honestly and to the best of your ability.

If a circled question is not applicable, enter a dash (-).
If the answer to a circled question is not known by the applicant, enter D/K.
Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

PRELIMINARY INTERVIEW CHECKLIST

INTERVIEWER: _____

BACKGROUND DATA

(1) Name (Last, First, Middle) _____
D.O.B. / / / I.D. # (from log) _____

(2) Date / / / Age ____ Sex ☐ M ☐ F Race ☐ White ☐ Black ☐ Mexican-American ☐ Other: _____

3. Nickname _____ Other Names _____ Maiden Name _____

(4) Why do you want to be a police officer (write brief summary of reasons)? ____
_____
_____

5. (Out of Towners) What attracted you to Houston? _____
_____

(6) How many residences have you lived in during the last five years? (excluding military service, dorm rooms, etc.) ____

TRAFFIC RECORD

1. D.L. Number _____ State _____ Expiration Date _____
Any restrictions? Type _____
Type of License (e.g., Chauffeur's) _____

(2) HAVE YOU EVER HAD ANY TRAFFIC TICKETS? HOW MANY ALTOGETHER? ____
- (a) How many were you convicted on? ____
- (b) How many are not paid? ____
- (c) How many moving violation tickets have you had in the last 12 months? ____
- d. What were they for? _____
- (e) How many were you convicted on? ____

(3) HAVE YOU EVER HAD ANY TRAFFIC ACCIDENTS? HOW MANY ALTOGETHER? ____
- (a) How many were your fault? ____
- b. Were there any serious injuries? _____
- (c) How many of the accidents were in the last 12 months? ____
- (d) How many of those in the last 12 months were your fault? ____

(4) HAVE YOU EVER RECEIVED ANY WARNING LETTERS? HOW MANY? ____
- (a) How long ago was the last one (estimate in months)? _____
- b. What for? _____

(5) HAS YOUR LICENSE EVER BEEN SUSPENDED? HOW MANY TIMES? ____
- (a) How long ago was it last suspended (estimate in months)? _____
- b. Why was it suspended? _____

(6) HAVE YOU EVER BEEN PUT ON PROBATION? HOW MANY TIMES? ____
- (a) How long ago were you last put on probation (estimate in months)? ____
- b. Why were you put on probation? _____
_____

(7) How do you think others would evaluate your driving habits on the following four-point scale? (Read the phrases only, not the numbers, to the applicant and ask him which describes his driving habits the best. Make a ✓ on the line next to the response).
____ 1 = Always safety conscious
____ 2 = Usually safety conscious
____ 3 = Usually careless
____ 4 = Always careless

8. Additional comments _____

CIVIL SUITS

(1) HAVE YOU EVER BEEN SUED? HOW MANY TIMES? ____
- a. When? _____ b. What for? _____
- c. Settled or pending? _____ d. In or out of court? _____
- e. Did you win or lose? _____

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a numb entered, even if it is zero (0).

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39 (2) HAVE YOU EVER SUED ANYONE? HOW MANY TIMES? ____
a. When? _____ b. What for? _____
c. Settled or pending? _____ d. In or out of court? _____
e. Did you win or lose? _____

40 (3.) HAVE YOU EVER FILED A GRIEVANCE WITH A LABOR UNION OR ORGANIZATION? HOW MAN TIMES? ____
a. When? _____ b. Against whom? _____
c. Disposition? _____

4. Additional comments _____

IV. MILITARY HISTORY

41 (1) Draft classification: ____ 1 ☐ Not Unfavorable 2 ☐ Unfavorable (check on
42 (2) Reinlistment code: ____ 1 ☐ Not Unfavorable 2 ☐ Unfavorable (check one)
43 (3) IS EITHER YOUR DRAFT CLASSIFICATION OR REINLISTMENT CODE DUE TO A PHYSICAL DISABILITY? 1)___ Yes 2)___ No (check one)
Type? _____ Disability pay? _____
44 (4) Have you ever been in the service? 1)___ Yes 2)___ No (check one)

5. (IF NOT IN SERVICE) a. If 4F, 1Y, or Conscientious objector, reason: ____
_____
b. Have you ever tried to enlist? What happened? _____
_____

6. (IF WAS IN THE ARMED SERVICES) a. Branch _____ Rank _____
b. Duties _____
c. Date in _____ Date out _____
45 (d) ANY ARTICLE 15'S, OFFICE HOURS, CAPTAIN'S MASS, ETC? HOW MANY? ____
1) What for? _____
2) Disciplinary actions _____
46 47 48 (e) WERE YOU EVER COURT MARTIALED? HOW MANY TIMES FOR EACH OF THE FOLLOWING TYPES? ____ General ____ Special ____ Summary (enter a number in each space)
1) What for? _____
2) Disciplinary actions _____
49 (f) Type of discharge: 1)___ Honorable 3)___ Undesirable
2)___ General 4)___ Dishonorable (check one
50 (g) Based on the following scale, how did you adapt to the military service? (Read phrases only; check the most appropriate response.)
____ 1 = loved every minute of it
____ 2 = very few problems adjusting
____ 3 = some problems adjusting
____ 4 = lot of difficulty adjusting
____ 5 = hated every minute of it
(What kind of problems did you have? What part of the service didn't you like?) _____
_____

7. Additional comments _____

V. EDUCATION

52 (1) Do you have a: G.E.D.? ____ High school diploma? ____ 40 hours college? Did you attend a vocational school? If so, how many years? ____ Did you attend college? If so, how many years? ____
53 (2) What was your overall grade average in high school? What was your class standing?

____ A+	____ B+	____ C+	____ D+	____ 1 = Top quarter	(check one)
____ A	____ B	____ C	____ D	____ 2 = Second quarter	
____ A-	____ B-	____ C-		____ 3 = Third quarter	
(check one)				____ 4 = Bottom quarter	

If a circled question is not applicable, enter a dash (-).
If the answer to a circled question is not known by the applicant, enter D/K.
Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

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(3) Were you ever suspended or placed on probation while in high school? How many times? ____ Why? _____

(4) Based on the following scale, what was your attitude toward high school? (check one)
____ 1 = took it very seriously; studied hard
____ 2 = took it fairly seriously
____ 3 = did not take it very seriously
____ 4 = did not take it seriously at all; ignored studies

(5) HAVE YOU EVER ATTENDED COLLEGE? 1)____ Yes 2)____ No (check one)
- (a) Are you still attending? 1)____ Yes 2)____ No (check one)
- (b) Did you obtain a degree? 1)____ MA 2)____ BA 3)____ AA 4)____ No (check one or more)
- c. If you did not graduate, why not? _____
- (d) Did you ever drop out? How many times? ____ Why? _____
- (e) How many courses did you drop? ____ (If dropped same course more than once, count each time)
- (f) How many courses did you fail? ____ (If failed same course more than once, count each time)
- (g) What was your overall grade point average? ____ out of 4.0 (convert all grades to a 4-point scale)
- (h) Were you ever put on academic probation? How many times? ____
- (i) Were you ever put on any other type probation? How many times? ____ What for? _____
- (j) Did you ever receive any other type of disciplinary action? How many times? ____ What for? _____
- (k) To what extent did you support yourself financially while attending college? ____ None ____ All ____ % (out of own pocket only; do not consider scholarships)

(6) Based on the following scale, what was your attitude toward college? (check one)
____ 1 = took it very seriously; studied hard
____ 2 = took it fairly seriously
____ 3 = did not take it very seriously
____ 4 = did not take it seriously at all; ignored studies

(7) Have you ever taken any courses in law enforcement? How many? ____
Courses: _____

8. Additional comments _____

EMPLOYMENT HISTORY

1. HAVE YOU EVER APPLIED TO THE HOUSTON POLICE DEPARTMENT BEFORE? ____
   a. When? _____ b. Outcome? _____
      1) If rejected, reason: _____
      2) Has this reason been rectified now? _____
2. HAVE YOU EVER APPLIED TO ANY OTHER CITY DEPARTMENT IN HOUSTON? ____
   a. When? _____ b. Department? _____
   c. Outcome? _____
3. HAVE YOU EVER APPLIED TO ANY OTHER POLICE DEPARTMENT OR LAW ENFORCEMENT AGENCY? How many? ____ a. When? _____ b. Where? _____
   c. Was background investigation conducted? ____ Yes ____ No ____ Don't know
   d. Outcome? _____

(4) HAVE YOU WORKED FOR ANOTHER POLICE DEPARTMENT OR LAW ENFORCEMENT AGENCY?
   1)____ Yes 2)____ No (check one)
   a. What were your dates of employment? _____ to _____
   b. Duties/Division _____
   _____

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

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75 ⓒ Reason for leaving: 1)____ Voluntarily resigned 3)____ Asked to leave
4)____ Fired 2)____ Layed off (check one)
Why? _____

d. Are you eligible to return? 1)____ Yes 2)____ No

77 ⓔ WERE ANY DISCIPLINARY ACTIONS TAKEN AGAINST YOU? HOW MANY? ____
1) When? _____ 2) What for? _____
3) Disciplinary actions _____

79 ⓕ WERE THERE ANY CITIZEN COMPLAINTS AGAINST YOU? HOW MANY? ____
1) When? _____ 2) What for? _____
3) Outcome? _____

6 ⓖ HAVE YOU EVER BEEN THE SUBJECT OF AN INVESTIGATION? HOW MANY TIMES?
1) When? _____ 2) By whom? _____
3) What for? _____ 4. Outcome? _____

8 ⓗ DID YOU EVER ACCEPT ANY BRIBES? HOW MANY TIMES? ____
1) What type of bribes (money)? _____
2) Value _____ 3. What were they for? _____

10 ⓘ DID YOU EVER FAIL TO TURN IN CONFISCATED OR PRISONERS' PROPERTY?
HOW MANY TIMES? ____ What? _____

12 ⓙ DID YOU EVER ENGAGE IN ANY MISCONDUCT THAT WENT UNDETECTED? HOW MANY TIMES? ____ What? _____

k. EVER INJURED ON DUTY? 1)____ Yes 2)____ No How many times? ____
What for? _____ Time lost? _____
How injured? _____

14 ⑤. HOW MANY FULL-TIME JOBS HAVE YOU HAD, INCLUDING PRESENT JOB? ____

15 ⓐ Are you presently employed? 1)____ Yes 2)____ No (check one)

b. (CURRENT OR LAST EMPLOYMENT)
1) Time employed ____ months
2) Major duties and responsibilities _____
_____
3) What kind of problems did (or do) you have with your co-workers
_____
4) How would your immediate supervisor evaluate you on your work?
Strong points _____
Needs for improvement _____

⑤ On a 4-point scale with 1 being very favorably, 2 being favorably, 3 being unfavorably, and 4 being very unfavorably, how would you evaluate you on: (enter a number on each space)

16 ____ initiative, resourcefulness, and willingness to take responsibility
17 ____ willingness to follow orders
18 ____ common sense or ability to make decisions
19 ____ perserverence or stick-to-itiveness
20 ____ leadership ability
21 ____ ability to plan and organize
22 ____ ability to get along with co-workers
23 ____ absenteeism record

24 ⑥ Reason for leaving (check one): 1)____ Voluntarily resigned resigning (that is, the applicant decided to look for or take another job) 3)____ Asked to leave 4)____ Fired 2)____ Laid off
5)____ Temporary job. Why? _____
_____

If a circled question is not applicable, enter a dash (-).
If the answer to a circled question is not known by the applicant, enter D/K.
Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

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⑦ Based on the following scale, how do you think your immediate supervisor will evaluate you for becoming a police officer?
____ 1 = very favorably
____ 2 = favorably
____ 3 = unfavorably
____ 4 = very unfavorably (check one)
What reservations might he mention? _____

_____

c. (IF OTHER JOBS)
① Average tenure (in months)? ____
② HAVE YOU EVER BEEN FIRED? HOW MANY TIMES? ____ When? _____
③ HAVE YOU EVER BEEN ASKED TO RESIGN? HOW MANY TIMES? ____
When? _____ Why? _____
④ HAVE YOU EVER QUIT A JOB WITHOUT GIVING SUFFICIENT NOTICE?
HOW MANY TIMES? ____ When? _____ Why? _____
_____
⑤ When we talk to your previous supervisors about you, how do you think they will evaluate you? (Put a ✓ by the worst evaluation the applicant would get.) ____ 1 = very favorably
____ 2 = favorably
____ 3 = unfavorably
____ 4 = very unfavorably
⑥ When we talk to your previous co-workers about you, how do you think they will evaluate you? (Put a ✓ by the worst evaluation the applicant would get.) ____ 1 = very favorably
____ 2 = favorably
____ 3 = unfavorably
____ 4 = very unfavorably

⑥ Have you ever been self employed? How many times?
7. Additional comments _____

FINANCIAL CONDITION
① HAVE YOU EVER ESTABLISHED CREDIT? 1)____ Yes 2)____ No (check one)
ⓐ When we check your credit with a credit bureau, how do you think it will come back? (check one) 1)____ Excellent 2)____ Good 3)____ Fair 4)____ Poor. Why? _____
_____
② What do you consider your current financial condition to be: 1)____ Excellent 2)____ Good 3)____ Fair 4)____ Poor (check one)
a. Why? _____
ⓑ ON HOW MANY ACCOUNTS ARE YOU NOW BEHIND AT LEAST ONE MONTH? ____
① How far behind (in months)? ____ (for the most delinquent account)
2) Circumstances? _____
③ HAVE YOU EVER HAD ANY REPOSSESSIONS? HOW MANY? ____
a. What? _____
b. When? _____ c. Why? _____
④ HAVE YOU EVER BEEN REFUSED CREDIT? HOW MANY TIMES? ____
a. When? _____ b. Why? _____
⑤ HAVE YOU EVER HAD A CHECK RETURNED BECAUSE OF INSUFFICIENT FUNDS? HOW MANY TIMES? ____
a. When? _____ ⓑ For how much altogether? _____
c. ____ Intentionally ____ Unintentionally (check one)
⑥ HAVE YOU EVER DECLARED BANKRUPTCY? 2)____ Yes 1)____ No (check one)
When? _____ Why? _____
Disposition? _____

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a n entered, even if it is zero (0).

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7. How do you feel about:
   a. Living on a cadet's salary? _____
   b. Spending $200 for books and expenses, and going for three weeks with pay? _____
   c. Relocation expenses? _____

[57] (8) At what age were you financially independent? ____

9. Additional comments _____

VIII. DRINKING HABITS

[58] (1) DO YOU DRINK? ARE YOU A LIGHT, MODERATE, OR HEAVY DRINKER? 1)____ Not a 2)____ Light 3)____ Moderate 4)____ Heavy (check one)

2. What do you drink? ____ Beer ____ Wine ____ Liquor (check all that appl.

3. How often do you drink? _____

[60] (4) How many drinks do you average per week? ____

5. Where do you usually drink? _____

6. Do you frequent any lounges or taverns? Names: _____
   a. How often do you go there? _____
   b. How long do you usually stay? _____

[62] (7) HOW MANY TIMES HAVE YOU BEEN INTOXICATED IN THE LAST 12 MONTHS? ____
   a. When were you last intoxicated? _____

[64] (b) How many times have you driven while intoxicated in the last 12 month

[66] (8) HOW MANY TIMES HAVE YOU BEEN TIPSY IN THE LAST 12 MONTHS? ____

[68] (a) How many times have you driven while tipsy within the last 12 months?
   b. When were you last tipsy? _____

[69] (9) What kind of problems, if any, has your drinking resulted in?
____ 3 = Serious ____ 2 = Minor ____ 1 = None at all (Check which one be describes these problems.)

10. Do you consider your drinking a problem? 2)____ Yes 1)____ No (check one)

11. Additional comments _____

IX. ARREST RECORD

[70][71] (1) HAVE YOU BEEN ARRESTED AS A JUVENILE? HOW MANY TIMES FOR FELONIES? ____ FOR MISDEMEANORS? ____
   a. When and where? _____
   b. What for? _____

[72][73] (c) Number of times convicted on felonies? ____ On misdemeanors? ____

[74][75] (2) HAVE YOU EVER BEEN ARRESTED AS AN ADULT? HOW MANY TIMES FOR FELONIES? ____ FOR MISDEMEANORS? ____
   a. When and where? _____
   b. What for? _____

[76][77] (c) Number of times convicted on felonies? ____ On misdemeanors? ____

3. Additional comments _____

X. FAMILY ARRESTS

1. HAVE ANY MEMBERS OF YOUR IMMEDIATE FAMILY (PARENTS, CHILDREN, BROTHERS, SI SPOUSE) OR CLOSE RELATIVES (THOSE WHOM YOU ASSOCIATE WITH OR COULD BE INFL BY) EVER BEEN ARRESTED?

[78][79] (a) How many times for felonies? ____ for misdemeanors? ____
   b. Who? _____
   c. When and where? _____
   d. What for? _____

[5][6] (e) Number of times convicted for felonies? ____ for misdemeanors? ____
   f. How did you feel about what they did? _____

2. Additional comments _____

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

PARTY AFFILIATIONS

During our background investigation, we will check into your organizational activities, so if you have been associated with any questionable groups, I'd like your explanation beforehand.

(1) ARE YOU A MEMBER OF, OR HAVE YOU EVER BEEN A MEMBER OF, THE KU KLUX KLAN, BLACK PANTHERS, OR ANY ORGANIZATION THAT MIGHT BE CONSIDERED RADICAL OR SUBVERSIVE?
How many? ____ Which ones? _____

(2) Have you ever attended a meeting of, or are you in sympathy with, any organization that might possibly be considered radical or subversive? How many meetings? ____ How many in sympathy with? _____

3. How many, if any, of your family members or friends belong to any of these types of organizations? ____

4. Additional comments _____

PHYSICAL HEALTH

1. What, if any, serious illnesses or injuries do you have or have you had?
_____
a. When? _____ b. Are there any present effects? _____

2. What, if any operations have you had? _____
a. When? _____ b. Are there any present effects? _____

3. How many times have you been hospitalized? ____
a. What for? _____ b. When? _____

4. Are you presently on any medication?
a. What kind? _____
b. What for? _____ c. How long? _____

5. What physical defects, if any, do you have? _____

6. Are you involved in any type of formal or informal physical fitness or weight control program? Describe _____

7. Additional comments _____

MENTAL HEALTH

1. DO YOU HAVE OR HAVE YOU EVER HAD ANY NERVOUS OR MENTAL DISORDERS? 2)___ Yes 1)___ No (check one)
a. What? _____ b. When? _____

2. DID YOU EVER TAKE MEDICATION FOR A NERVOUS OR PSYCHOLOGICAL CONDITION? 2)___ Yes 1)___ No (check one)
a. What? _____ b. How long? _____

3. Were you ever under the care of a psychiatrist, psychologist or counselor? 2)___ Yes 1)___ No (check one)

4. Has anyone in your family ever had a nervous or mental disorder? ____

(5) DO YOU HAVE AN ACTIVE TEMPER? 1)___ No 2)___ Yes (check one)
(a) How many times per year do you lose control of your temper? ____
b. How do you usually display your temper? _____
c. When was the last time you lost your temper? _____
d. What did you do? _____

6. How do you usually react when you get angry or frustrated? _____
_____

7. How do you normally react to somebody who insults or abuses you? _____
_____

(8) AS AN ADULT, HAVE YOU EVER BECOME INVOLVED IN A PHYSICAL FIGHT? (THAT IS NOT JOB RELATED; ONLY THOSE THAT ARE PERSONAL IN NATURE) HOW MANY TIMES? ____
a. When? _____ b. Who started it? _____
c. Any weapons? ____ d. Circumstances? _____
d. Outcome? _____

9. Additional comments _____

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a num entered, even if it is zero (0).

XIV. DRUG USE

1. Have you ever taken any illegal drugs, such as: marijuana ... hash ... sp ... heroin ... LSD ... cocaine ... others?

			# Times in Life	# Times in Last 12 Mos.	Last Time	Comments (e.g., whom with, where got, where used, etc.)
19 21	(a)	Marijuana				
23 25	(b)					
	(c)					
	(d)					

2. Have you ever taken any prescription medication not prescribed to you? If

		What	# Times in Life	# Times in Last 12 Mos.	Last Time	Comments
	a.					
	b.					
27 29	c.					
	d.					
	e.					

30 (3) How do you feel about the hard drug laws? (check one) 1)____ Too lenient 3)____ Too strong 2)____ Adequate. Comment _____

31 (4) How do you feel about the marijuana laws? (check one) 1)____ Too lenient 3)____ Too strong 2)____ Adequate. Would you enforce them under all circumstances (e.g., on friends)? _____
Comment _____

5. How many of your friends use drugs? ____
Do they try to involve you? ____ Yes ____ No

6. Additional comments _____

XV. FAMILY STATUS AND SEX

32 (1) How many times have you been married? ____

33 (2) Current status (check one): 1)____ Single 2)____ Married 3)____ Widowed 4)____ Separated 5)____ Divorced

34 (3) If ever divorced, number of times. ____

4. (FOR CURRENT OR LAST MARRIAGE).

a. How long (are/were) you married? _____ How many children? ___

35 (b) Have you ever separated? Number of times? ____
How long? _____ Why? _____

37 (c) Did you ever hit your spouse out of anger? How many times? ____
Why? _____

38 (d) Based on the following scale, (do/did) you argue (fight)
____ 1 = never
____ 2 = very seldom
____ 3 = some of the time
____ 4 = most of the time
____ 5 = all of the time (check one)

5. (IF CURRENTLY MARRIED)

39 (a) Based on the following scale, how do you feel about your marriage
____ 1 = very happy marriage
____ 2 = happy marriage
____ 3 = unhappy marriage
____ 4 = very unhappy marriage (check one)

If a circled question is not applicable, enter a dash (-).
If the answer to a circled question is not known by the applicant, enter D/K.
Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

ⓑ Based on the following scale, how does your spouse feel about your becoming a police officer? (check one)
____ 1 = very encouraging
____ 2 = positively
____ 3 = indifferent
____ 4 = negatively
____ 5 = strongly opposed

Objections: _____

6. (IF CURRENTLY SEPARATED)
   a. How long have you been separated? _____ b. Why? _____
7. (IF CURRENTLY DIVORCED)
   a. How long have you been divorced? _____ b. Who filed for divorce? _____ c. Why? _____
8. (IF OTHER MARRIAGES)
   ⓐ Average length (in months) of each marriage _____
   b. Reason each marriage terminated _____
   ⓒ Number of times separated? ____ Why? _____
   ⓓ Ever hit your spouse out of anger? How many times? ____
   Why? _____
   ⓔ How much did you argue (fight)? (check one)
   ____ 1 = never
   ____ 2 = very seldom
   ____ 3 = some of the time
   ____ 4 = most of the time
   ____ 5 = all of the time
9. (IF EVER DIVORCED)
   Who has custody of the children? _____ Are you paying child support? ____
   Ever delinquent on payments? ____ How many times? ____
10. (IF EVER MARRIED)
    DID YOU EVER GO OUT ON YOUR PRESENT OR FORMER SPOUSE(S)? 2)____ Yes 1)____ No (check one)
    ⓐ On how many spouses? ____ ⓑ With how many people? ____
    ⓒ How many times altogether? ____ d. Long affairs or short ones? _____ ⓔ How long ago (in months) was the last time? _____ ⓕ Did you ever go out with a person you knew was married? 2)____ Yes 1)____ No (check one)
    g. Why did you go out on your spouse? _____
    ⓗ Would you do it again?
    ____ 1 = definitely not
    ____ 2 = probably not
    ____ 3 = probably yes
    ____ 4 = definitely yes (check one)
11. (IF SINGLE)
    a. Whom do you live with? _____
    b. Have you ever lived with anybody else? ____
    ⓒ HAVE YOU EVER GONE OUT WITH A PERSON YOU KNEW WAS MARRIED? 2)____ Yes 1)____ No
    ① With how many married people? ____
    ② How many times altogether? ____
12. Have you ever been named in a divorce suit? When? _____
13. HAVE YOU EVER ENGAGED IN ANY SEXUAL ACTIVITY THAT MIGHT BE CONSIDERED ABNORMAL? 2)____ Yes 1)____ No (check one)
    a. What? _____
14. Have you ever engaged in any sexual activity that might be used to intimidate or blackmail you? 2)____ Yes 1)____ No (check one)

1. If a circled question is not applicable, enter a dash (-).
2. If the answer to a circled question is not known by the applicant, enter D/K.
3. Make sure all circled questions that ask for a quantitative response have a n. entered, even if it is zero (0).

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15. What about the following? How many times?

		Juvenile	Adult	Comments
67 69	(a) Homosexual acts			
71 73	(b) Use of prostitutes			
75 77	(c) Received payment for sex			

16. Have you ever had VD? ____ No ____ Yes Type _____
    a. How many times? ____ b. Last time? _____
17. (IF FEMALE)
    78 (a) HAVE YOU EVER HAD AN ILLEGITIMATE CHILD?
    1) How many? ____ 2) When? _____
    79 (b) HAVE YOU EVER HAD AN ABORTION? How many? ____ When? _____
    Legal or illegal? _____
    80 (18) (IF MALE)
    HAVE YOU EVER CAUSED A GIRL OTHER THAN YOUR WIFE (AT THE TIME) TO GET PREGNANT? How many? ____ When? _____
    5 (19) Have you ever arranged for anyone to have an abortion? How many times? ___
    Legal or illegal? _____
20. Additional comments _____

XVI. THEFTS AND DISHONESTY

1. Have you ever stolen or shoplifted anything; that is, have you ever taken anything from an employer, store or person that didn't belong to you?

	What; # of Times	How Long Ago Was the Last Time	Your Age	Total Value (all times combined)	From Who
a.	;				
b.	;				
c.	;				
d.	;				
7 10 14 e.	;				

2. Did you ever change price tags?

	What; # of Times	How Long Ago Was the Last Time	Your Age	Total Value
a.	;			
b.	;			
c.	;			
d.	;			
16 19 23 e.	;			

3. Have you ever purchased items that you knew or suspected were stolen?

	What; # of Times	How Long Ago Was the Last Time	Your Age	Total Value
a.	;			
b.	;			
c.	;			
d.	;			
25 28 32 e.	;			

4. Additional comments _____

XVII. OUTSIDE ACTIVITIES

1. How do you spend your spare time? _____
2. Hobbies? _____

If a circled question is not applicable, enter a dash (-).
If the answer to a circled question is not known by the applicant, enter D/K.
Make sure all circled questions that ask for a quantitative response have a number entered, even if it is zero (0).

---

(3) Organizations? How many? ____ Which ones? _____
4. Comments _____

RESERVATIONS

1. As you know, we will investigate your past. When we interview applicants, friends, and neighbors, we almost always find someone who questions the applicant's acceptability as a police officer. Let's discuss these things now: What type of reservations might people have about you? _____

(2) How do you think your personal references will evaluate your suitability for police work? ____ 1 = very favorably
____ 2 = favorably
____ 3 = unfavorably
____ 4 = very unfavorably (check one)

(3) How will people evaluate you when we ask them about your racial prejudices (e.g., against Whites, Blacks, Spanish, etc.)? ____ 1 = absolutely no prejudice
____ 2 = a little prejudiced
____ 3 = prejudiced
____ 4 = very prejudiced (check one)

(4) How will people evaluate you when we ask them about your religious prejudices (e.g., against Jewish, Catholics, etc.)? ____ 1 = absolutely no prejudice
____ 2 = a little prejudiced
____ 3 = prejudiced
____ 4 = very prejudiced (check one)

(5) How will people evaluate you when we ask about your prejudices against other groups of people, such as hippies, homosexuals, liberals, etc.?
____ 1 = absolutely no prejudice
____ 2 = a little prejudiced
____ 3 = prejudiced
____ 4 = very prejudiced (check one)

6. What is the worst thing you have done in your life: that is, what have you done that you regret the most? _____
7. Using the following scale, what are your reservations about:
1 = absolutely no reservations
2 = some reservations
3 = very strong reservations

(a) Completing the academy? ____
(b) The pay for police officers? ____
(c) Shift work? ____
(d) Physical demands of the job? ____
(e) Using force? ____
(f) Using firearms? ____
(g) Possibly injuring someone? ____
(h) Possibly killing someone? ____
(i) Possibly arresting friends or relatives? ____
(j) Enforcing <u>all</u> laws? ____
(k) Following orders strictly? ____
(l) Working on any type of duties assigned? ____

(Enter a number on each space)

8. What do you feel are the major attractions of police work? _____
9. What do you feel are the major drawbacks of police work? _____
10. Additional comments _____

PRELIMINARY INTERVIEW

APPLICANT EVALUATION FORM

PART I

Based on the information obtained on the preliminary interview checklist, rate the applicant on each of the factors below. Each rating should be made on the basis of the following 5-point scale:

5=negative information; automatically rejects the applicant
4=negative information; points toward rejection, but other factors must be considered
3=negative information, but minor; little or no effect on employment decision
2=no negative information obtained
1=positive information; may be helpful in job success

When rating each factor, review the appropriate section on the preliminary interview checklist, and then circle the number in the rating scale (as defined above) which you feel best summarizes the information obtained. Base your rating only on the basis of the information obtained in the corresponding section of the preliminary interview checklist.

		POSITIVE DATA	NO NEGATIVE	NEGATIVE DATA: MINOR	NEGATIVE DATA: CONSIDER
I.	REASON FOR WANTING TO BE A POLICE OFFICER: . .	1	2	3	4
II.	DRIVING HISTORY: . . .	1	2	3	4
III.	CIVIL SUITS:	1	2	3	4
IV.	A. RELEVANCE OF MILITARY SERVICE:. . .	1	2	3	4
	B. ADJUSTMENT TO MILITARY SERVICE:. . .	1	2	3	4
V.	A. ADJUSTMENT TO EDUCATIONAL SETTING: . .	1	2	3	4
	B. POTENTIAL FOR GETTING THROUGH POLICE ACADEMY:. .	1	2	3	4
VI.	A. EMPLOYMENT HISTORY/STABILITY:.	1	2	3	4
	B. EMPLOYMENT REFERENCES: . .	1	2	3	4
	C. RELEVANCE OF EMPLOYMENT EXPERIENCE FOR HPD WORK: .	1	2	3	4
VII.	A. PAST FINANCIAL CONDITION: .	1	2	3	4
	B. CURRENT FINANCIAL CONDITION: .	1	2	3	4

		POSITIVE DATA	NO NEGATIVE	NEGATIVE DATA MINOR	CONSIDER	REJECT	
VII.	DRINKING HABITS:	1	2	3	4	5	57
IX.	A. ARREST RECORD:	1	2	3	4	5	58
	B. CONVICTION RECORD: . . .	1	2	3	4	5	59
X.	INFLUENCE OF FAMILY AND FRIENDS:	1	2	3	4	5	60
XI.	PARTY AFFILIATIONS:. . . .	1	2	3	4	5	61
XII.	PHYSICAL HEALTH:	1	2	3	4	5	62
XIII.	A. MENTAL HEALTH:	1	2	3	4	5	63
	B. EMOTIONAL CONTROL: . . .	1	2	3	4	5	64
	C. ASSERTIVENESS:	1	2	3	4	5	65
XIV.	DRUG USE:	1	2	3	4	5	66
XV.	A. HISTORY OF FAMILY STABILITY/ MARITAL ADJUSTMENT: .	1	2	3	4	5	67
	B. SEXUAL CONDUCT:. . . .	1	2	3	4	5	68
XVI.	HONESTY:	1	2	3	4	5	69
XII.	A. PERSONAL REFERENCES: . .	1	2	3	4	5	70
	B. SUITABILITY FOR POLICE WORK: .	1	2	3	4	5	71

PART II

Review the information obtained during the preliminary interview as a whole. Now, based on the information obtained and the applicant's actions, attitude, and interpersonal style displayed during the interview, evaluate the applicant on each of the eight factors at the end of this page (these factors are defined in the accompanying manual). For each factor circle the number on the rating scale, as defined below, which best describes the individual.

1=above average
2=average
3=below average

	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
1. TO WHAT EXTENT DOES THE APPLICANT DISPLAY PERSONAL CHARACTER AND RESPONSIBILITY?	1	2	3
2. TO WHAT EXTENT DOES THE APPLICANT DISPLAY EMOTIONAL STABILITY/CONTROL AND PSYCHOLOGICAL ADJUSTMENT?	1	2	3
3. TO WHAT EXTENT DOES THE APPLICANT DISPLAY THE CAPACITY FOR GOOD JUDGMENT AND DECISION MAKING?	1	2	3
4. TO WHAT EXTENT DOES THE APPLICANT DISPLAY THE CAPACITY FOR CONSCIENTIOUSNESS TO DUTY?	1	2	3
5. TO WHAT EXTENT DOES THE APPLICANT DISPLAY THE CAPACITY FOR INTERPERSONAL EFFECTIVENESS?	1	2	3
6. TO WHAT EXTENT DOES THE APPLICANT DISPLAY AN INTEREST IN HELPING OTHERS AND THE CAPACITY FOR EXERCISING GOOD PUBLIC RELATIONS?	1	2	3
7. TO WHAT EXTENT DOES THE APPLICANT DISPLAY THE CAPACITY FOR ESTABLISHING GOOD WORKING RELATIONSHIPS WITH PEERS?	1	2	3
8. TO WHAT EXTENT DOES THE APPLICANT DISPLAY THE CAPACITY FOR EXERCISING LEADERSHIP/SELF-RELIANCE?	1	2	3

9. DISPOSITION: 1. ☐ Investigate
2. ☐ Voluntarily Withdrew
3. ☐ Reject

APPENDIX B

CRITICAL INCIDENT DIMENSIONS

TABLE 5

CRITICAL INCIDENT DIMENSIONS -

CATEGORY EXAMPLES

1. PERSONAL CHARACTER AND RESPONSIBILITY

a. Honesty

Positive - reporting and returning all found, confiscated or recovered money, drugs, goods, etc.; reporting attempted bribes; pretending to accept a bribe so actor can be prosecuted; turning in another officer for stealing.

Negative - lying about inappropriate use of firearms; lying about personal traffic accident; accepting stolen goods from a friend; living with criminals; soliciting or accepting bribes to ignore illegal actions or practices; taking goods while investigating burglary alarm call at a store; keeping confiscated or recovered money, goods, etc., for personal use; committing burglaries or thefts.

b. Abiding by the Law

Positive - not shooting an actor, even though he had a gun and had just shot four officers.

Negative - unnecessarily breaking the speed limit and ignoring traffic laws while on or off duty; telling other officers not to let an actor come out of a building alive.

c. Objectivity, Fairness and Prejudice

Positive - applying the law equally to all; listening to both sides of a story; not letting prejudices affect actions or decisions.

Negative - using authority to harass individuals of minority groups that officer is prejudiced against; using derogatory ethnic terms when talking to minority traffic violator; harassing long-haired teenage males on minor traffic violations; accusing person of violations because of personal dislikes; beating person discovered in a homosexual act; taking sides in a civil dispute; writing excessive tickets to get back at someone; slashing tires of individual who brought charges against officer.

d. Proper Use of Authority

Negative - feeling no one should challenge his/her statements or decisions because he/she is a police officer; overreacting when someone does not listen to or obey him/her; feeling meals should be discounted; using uniform to collect overdue rent; using position to try to impress friends with authority; bringing friend to ride in patrol car and making partner sit in the back seat while officer shows off and harasses citizens.

2. EMOTIONAL STABILITY/CONTROL AND PSYCHOLOGICAL ADJUSTMENT

a. Sexual Conduct

Negative - making obscene gestures and remarks to females; asking females stopped for traffic violation for date; making passes at female employees of businesses on beat; having an affair with a married woman while on duty; taking juvenile runaway to own home to spend the night and having sexual relations with her; raping a female while on duty; forcing prisoners in jail to commit oral sodomy on officer.

b. Use of Alcohol and Drugs

Negative - being intoxicated while on duty; wrecking a patrol car because officer was intoxicated; coming to the station intoxicated while off duty and causing arguments and fights; firing weapons at others while off duty and intoxicated; keeping marijuana taken from actor and smoking it off duty.

c. Separating Personal Life from Professional Obligations

Negative - during the process of divorce officer became very difficult to work with; while having problems at home officer became very irritable, using firearms more than necessary and threatening to shoot actor who would not confess; while on duty arresting juveniles out of officer's district who were harassing his wife; stopping off at home to talk to wife when officer should have been on his way to a scene and arresting an actor

d. Physical Aggressiveness

Positive - preventing another officer from physically abusing an actor; using only necessary force to subdue actor, even though officer was seriously injured by actor.

Negative - using unnecessary force to subdue or arrest an actor; hitting actor for no apparent reason; physically abusing an actor to get a confession; becoming emotionally upset by an offense and beating up the actor; using physical force to get information from witnesses; handcuffing bystander laughing at officer; beating a drunk with a nightstick to try to arouse him.

e. Verbal Aggressiveness

Positive - preventing other officer from verbally abusing an actor.

Negative - using abusive language to a mentally ill person, an intoxicated person, a traffic violator, or an actor; antagonizing and/or threatening an actor, often provoking a fight; arguing with an actor; screaming at bystanders to clear an area; making degrading remarks to a complainant about an actor in the actor's presence.

f. Self Control and Restraint

Positive - ignoring verbal abuse from the public, a traffic violator, or an actor; holding temper; communicating quietly and rationally while being verbally assaulted; remaining calm when actor spits in officer's face.

Negative - getting into own family disturbance and pulling a gun; spraying a suspect's car with tear gas; spinning tires and throwing gravel when leaving traffic violators; doing something childish to get back at someone; laughing at victim rather than helping.

g. Maintaining Control in Emergency or Stressful Situation -

Positive - remaining calm enough to administer effective first aid; remaining calm during gunfire; thinking rationally after being shot; being able to think and react quickly; remaining calm when faced with physical danger.

Negative - getting very excited during a stressful situation; overreacting to people with weapons; panicking and running when another officer is shot; panicking and shooting an innocent bystander when an officer is shot; freezing during gunfire; becoming hysterical when injured; forgetting to give dispatcher location when calling for assistance; becoming confused and giving incorrect information while dispatching during a chase; overusing siren when it should not be used; interpreting tire blow out as sniper and put out "officer assist".

h. Willingness to Risk Personal Safety, Courage

Positive - asking to be exchanged for a hostage; going into a burning building to help people escape; going into building where burglar is known to be; approaching a mentally or emotionally disturbed person armed with a gun.

Negative - running from a room when an actor pulls a gun on partner; watching as partner is both fighting two actors and trying to radio for assistance; refusing to help partner physically subdue an actor; being afraid to fight with an actor; staying in a patrol car while partner searches building for a burglar; being afraid to approach a car stopped after a high speed chase.

3. JUDGMENT AND DECISION MAKING

a. Exercising Caution when Dealing with Actor

Positive - taking precautions so actor cannot jump officer; calling for assistance before situation gets out of hand; calling for assistance rather than trying to cope actors single-handedly.

Negative - approaching stopped car without careful attention to the actions of the occupants; approaching family disturbances without being prepared for gunfire; failing to search an actor; failing to find weapons on an actor because of a careless search; not being prepared for attack when searching prisoner; rushing into a house occupied by a dangerous person without backup; turning back on prisoner; not keeping means of escape available; getting too far from the radio to call for assistance; being careless with an actor who was able to throw evidence away; driving actor to jail in actor's car without notifying anyone; releasing felony offender from jail with municipal offenders.

b. Concern for the Safety of Others

Positive - refraining from using firearms in areas with bystanders; waiting for hostages to reach safety before firing at actor; terminating auto chase in populated areas; driving carefully in congested areas while pursuing fleeing actor; putting protection of partner before apprehension of actor.

Negative - pilot performing dangerous tricks in helicopter to show off for new observer; jumping out of patrol car to chase actor while car is still in gear.

TABLE 5 (CON'T.)

c. Flexibility to Situations and Circumstances

Positive - aiding critically injured persons, even though against department procedures; bending procedures to calm an emotionally upset individual; overlooking traffic offenses for confused out-of-towners; letting people off for marginal violations rather than following the letter of the law.

Negative - being inflexible; following orders blindly, even though circumstances argue against it.

d. Handling and Use of Weapon

Negative - shooting before thinking or when not absolutely necessary; shooting someone before finding out who it is; immediately shooting a fleeing actor instead of attempting to catch him; giving gun to bystander and telling him to shoot first person he sees; shooting at shadow in window of building where officers are inside searching for burglars; walking or running with a cocked gun behind another officer; firing warning shots in heavily populated area; firing at an actor for a minor offense; firing gun through windshield while chasing actor in a car; using firearms without first trying to capture actor without them; pointing gun at another officer while unloading; discharging gun while unloading; showing off with gun and discharging it by mistake, killing observer; leaving gun where actor could grab it; leaving weapons inside an unlocked and unoccupied patrol car.

e. Decision Making

Positive - thinking ahead to possible consequences of actions; deciding to let parents handle children's problem rather than taking juvenile with no record in for a minor offense.

Negative - jumping to conclusions without getting all the facts; acting impulsively without thinking about the consequences; handcuffing actor to the steering wheel of the patrol car and leaving the keys in the ignition; being indecisive and not knowing what to do if something unexpected occurs; arresting people because of emotions rather than for a violation; acting alone rather than with backup support; deciding to rush and shoot actor rather than trying to get him to surrender; not getting all the facts before breaking a door in; telling everyone at a scene to leave (including actors and witnesses).

f. Planning Ability

Positive - developing a systematic plan of attack of actor in building; anticipating all contingencies; anticipating direction of travel of actors to cut them off rather than going to the scene of the crime; setting up surveillances; plan and carry out undercover investigation; developing administrative projects; scheduling time efficiently; determining priorities; keeping track of several things at once.

g. Establishing Communicative Networks

Negative - failing to give full information to officers going to a scene; failing to keep dispatcher informed of activities; perceiving verbal communications incorrectly; not identifying self as police officer.

4. INVESTIGATIVE THOROUGHNESS

Positive - conducting thorough searches of building for possible actors; looking closely for fingerprints; checking background information on actors and witnesses; keeping an open mind; following-up on all leads, even the smallest details, being persistent over a long period of time; using a logical approach; interviewing all possible witnesses; securing all possible evidence; developing reasonable hypotheses; not overlooking any details; verifying statements rather than accepting them as true; looking beyond the obvious means of entry, cause of crime, etc.; making use of all police files to check and cross check information; initiating investigation of an unusual situation or individual.

Negative - conducting poor search of apartment and missing drugs; failing to check out traffic violator for other warrants; not thoroughly checking out burglar alarm call; failing to ask follow-up questions from apprehended actors; ignoring follow-up information provided by complainant; filing case as inactive without exhausting all investigative leads; busting case too soon when it could have led to a bigger case.

5. INVESTIGATIVE VIGILANCE

a. Memory for Details

Positive - remembering license numbers on hot sheet; remembering descriptions, names, and addresses of

people; remembering information given over the radio; remembering actors arrested several months earlier; remembering if car has been sitting in an unusual spot too long.

b. Perceptual Vigilance, Observant

Positive - noting movement of actor assumed to be dead; spotting vehicles or people matching descriptions; noticing suspicious vehicles; noticing suspicious looking people; perceiving nervousness in people; noticing items that are likely to be stolen; noticing patterns of people coming and going.

Negative - failing to keep an eye on what a prisoner is doing and letting him get away; running registration check on outdated license plate; falling asleep while working surveillance of suspect and suspect got away; not noticing incorrect address on warrant.

5. JOB KNOWLEDGE

a. Knowledge of the Law

Negative - arresting someone for a civil rather than criminal matter; making an illegal arrest; not giving a legal warning to actor causing case to be dismissed; searching without search warrant; not keeping abreast of current laws.

b. Knowledge of Procedures

Positive - knowing correct procedures for securing scenes so proper investigation can be made; being able to properly handle a helicopter when engine fails.

Negative - not calling homicide in to investigate shooting; not filing on an actor for the strongest case; failing to write the proper ticket; arresting someone outside jurisdiction without notifying proper law enforcement agency; being unable to answer probationary officer's questions about procedures.

c. Knowledge of Geographic Areas

Positive - knowing beat and where to look for a missing actor.

Negative - missing call because partner drove to the wrong location; giving incorrect location to dispatcher on "assist the officer".

d. Knowledge of First Aid Technique

Positive - being able to deliver a baby; administering artificial respiration; preventing excessive bleeding, preventing choking; treating overdose.

Negative - not recognizing symptoms of epilepsy or recognizing how sick someone is.

7. CONSCIENTIOUSNESS TO DUTY

a. Responsibility for Assignment

Negative - not filing charges when officer should have filed; leaving on vacation without completing an offense report; not filing offense report on crime; being out of assigned district to visit with people; constantly being late for work; not performing assign tasks; spending too much work time on personal errand going home before quitting time; not training rookie officer; refusing to complete a case initiated by another officer; leaving station unstaffed; going to scene of crime and telling complainant they can't investigate a matter when they can.

b. Following Departmental Procedures

Negative - not waiting for owner of building with burglary alarm to arrive before leaving scene; failing to go t court; failing to call supervisor to scene when actor was injured.

c. Following Orders

Negative - disregarding instructions to wait for a supervisor before taking action; doing things own way inst of following instructions of supervisor.

d. Interest in Work

Positive - taking on additional assignment without being asked; volunteering for additional duty; working on d off; suggesting and implementing more effective procedures; studying on own to increase knowledge and improve performance; performing work other officers h shoved aside; setting up investigation of crime on o time; offering to help another officer who is overlo with work; working unusual or long hours demanded by assignment; asking to work overtime to do an extra investigation.

Negative - neglecting duty; refusing to complete offense report; making up excuses not to take calls; speeding away from accident so won't have to make report; refusing to arrest actor when off duty; ignoring suspicious situation; not chasing actor, letting him get away; conducting quick investigation for cases not considered important; cutting an investigation short if it is close to quitting time.

e. Accuracy and Thoroughness in Reporting

Positive - catching errors in reports prepared by others; putting even the smallest details into a report.

Negative - failing to list all stolen property in a report; losing a case in court because of failure to include all important facts in an offense report; giving incorrect testimony in court; misspelling names on a report; forgetting to get names of individuals involved in a traffic accident; putting incorrect amount of fine on a ticket; accepting the incorrect amount of money for bond; failing to get money for actor's bond.

8. INTERPERSONAL EFFECTIVENESS

a. Ability to Assume an Undercover Role

Positive - successfully carrying out role.

Negative - acting stiff and uneasy, giving self away; making self conspicuous rather than blending into background while on surveillance.

b. Establishing Rapport with Actor to Obtain Information

Positive - getting confessions and details of offense; getting confessions and details about past offenses; getting names and information about accomplices.

Negative - being arrogant with and intimidate actor who was about to confess to another officer, causing the actor to stop talking; being insensitive to actor and not getting confession.

c. Developing and Gaining Trust of Informants

Positive - being able to extract negative information from people about their friends; convincing unwilling informant to supply information.

Negative - not being suspicious of informant's "suspicious" behavior.

d. Influencing Behaviors of Distressed or Disturbed Individuals

Positive - calming down angry or upset prisoners; talking people out of committing suicide; calming down and controlling emotionally disturbed or mentally ill persons; talking upset or dangerous persons into surrendering or not harming others; dispatchers calming down telephone caller until police car arrives at location.

e. Talking People Out of Fighting, Rioting, etc.

Positive - talking to an angry crowd and convincing them to disperse; calming two groups down so they won't fight.

9. INTEREST IN HELPING OTHERS/PUBLIC RELATIONS

a. Interest in Helping Others - Humanitarian

Positive - risking personal liability to help injured persons; taking time to explain laws and procedures to citizens; helping people resolve civil problems; voluntarily assisting stalled motorists, people in accidents, etc.; going out of way to obtain information for people; checking by on elderly or handicapped people; escorting lost tourists; helping destitute find a room for the night or employment; taking abandoned children to home overnight and taking them to proper agency in the morning; talking to juveniles about drugs, running away, etc.

Negative - refusing to answer questions from prisoners; putting actor in jail without making sure they get medical treatment; refusing to help injured accident victim.

b. Attitude when Dealing with Others

Positive - building and maintaining good community relations.

Negative - not apoligizing for false accusations; speaking in a negative tone; making degrading remarks or curses traffic violator; questioning witness in a rude manner; refusing to admit that a mistake was made;

being rude to innocent party after wrong apartment was raided; being rude or arrogant to minorities, fellow officers, or citizens for no apparent reason.

c. Sympathy and Concern for Victims or Distressed Individuals

Positive - consoling a person who has lost a loved one; showing concern for the victim of a crime; helping out-of-towner who was robbed get a meal and a place to stay; not writing a ticket to a pregnant lady who was hysterical after causing an accident; caring overnight for children whose parents were killed; comforting person who accidently killed his child.

Negative - not believing victim even when they had numerous cuts and bruises; refusing to help woman in family disturbance because she wouldn't file charges.

J. RELATIONSHIP WITH PEERS

Positive - working together to carry out a formal plan of attack; giving other officers information that may be helpful in their investigations; helping other officers learn how to perform their assignments; working as a team to capture actors; being ready to back up partner if attacked; coordinating helicopter with ground unit efforts.

Negative - leaving partner alone with several dangerous actors; refusing to help partner when apprehending or physically subduing actor(s); leaving scene so other officers will have to investigate; refusing to answer "assist the officer"; dispatcher sending officers he doesn't like on unpopular calls.

K. LEADERSHIP/SELF-RELIANCE

a. Directing and Assigning Tasks to Other Officers

Positive - directing other officers in approach to actors; setting up command post at emergency sites; assigning tasks to officers at emergency sites; determining strategies to control emergencies; carrying out raid on gambling house.

Negative - failing to tell officers who arrive to assist what part of the building to cover.

b. Controlling a Scene Independently; Self-Reliance

Positive - showing command presence; performing without assistance from supervisor; dispersing crowds; contr actions of witnesses and bystanders; securing evidenc and scene of the crime; taking charge of a confusing situation; organizing bystanders into a rescue team to save driver's life; not allowing crowd to interfe with duties.

Negative - not knowing what to do at a traffic accident relieve confusion.

12. PSYCHOMOTOR SKILLS

a. Ability to Shoot Firearms Accurately

Positive - shooting out tire of actor's car during a high speed chase; hitting actor during exchange of gunfire; hitting actor while running; hitting man who was about to stab baby in his arms.

Negative - hitting actor with what was supposed to be a warning shot; missing target.

b. Pursuit and High-Speed Driving Ability

Positive - catching actor after high-speed chase; not losing actor's vehicle in chase, staying with him.

Negative - losing control of car during high speed chase; driving too fast for conditions; hitting another police car in a high-speed chase.

13. PHYSICAL ABILITY

Positive - chasing a fleeing actor approximately one mile ove fences and drainage ditches; apprehending actor after lon chase; apprehending a screaming, kicking, biting, struggl actor; tackling a fleeing actor; disarming an actor; forci an actor into a patrol car; restraining a mentally ill person; holding the arm of a mentally ill person to prevent him from shooting someone; apprehending two people at once without using firearms; pulling man back from ledge of building; pulling man from stopped car who refused to get out; pulling unconscious man from burning car; lowering partner into building on rubber hose; lower self into building from rubber hose; carrying unconscious

TABLE 5 (CON'T.)

people out of burning apartments; kicking in door; jumping ten feet down from a window onto the roof of a next door building; retrieving body from bayou.

Negative - not being able to climb back yard fence while chasing actor; not being able to run as fast as actor and losing him in the chase; after catching up to a fleeing actor, being too out of breath to apprehend him; being unable to reach the gas peddle to drive a police car; being too fat to chase actor; getting thrown through plate glass window; being unable to subdue actor alone; wrestling actor for gun and losing.

APPENDIX C

APPLICANT SAMPLE STATISTICS:

FACTOR ANALYSIS PROCEDURES &

TEST SCORE STANDARDIZATION PROCEDURES

FACTOR ANALYSIS PROCEDURES

Factor analysis, although not a unitary concept, ordinarily includes three steps: preparation of the correlation matrix, extraction of initial factors, and rotation to a terminal soluation (Kim in Nie et. al. 1975, cha. 24). These steps can also serve to explicate the factor analysis in the present study.

The correlation matrix was created from scores on all test scales administered except CPI-So, CPI-Re, CPI-Fe, MMPI-K. CPI-So and CPI-Re were excluded in order to avoid confusing the factor solution with the already identified dimensions of socialization and responsibility. CPI-Fe also was excluded to simplify the factor structure. The MMPI-K scale, planned for later use as a fake scale, was not included. All scores on the remaining scales were standardized by race and sex before being intercorrelated.

The Statistical Package for Social Sciences (SPSS) was used for the analyses (Nie, et. al., 1975). Extraction of initial factors was performed using a principle component analysis where communality estimates replaced the main diagonal of the correlation matrix. An iterative procedure was used to improve these estimates of communality. (Note: in SPSS this is the PA2 method of factoring.)

Various rotations to simple structure were tried. An orthogonal rotation, (quartimax) was selected and factor score coefficients computed. The primary factor obtained accounted for 66 percent of test variance and stressed emotional adjustment. Hence, this factor became the emotional adjustment construct scale for subsequent research.

The following text used in the present investigation may be of interest to the reader: Harmon (1967).

TEST SCORE STANDARDIZATION PROCEDURES

Sex standardized scores were computed by using national normative data presented by Gough (1975).

Sex/race standardized norms were derived from the means and standard deviations presented in Table C1, which follows.

TABLE C1

RAW SCORE TEST MEANS AND STANDARD DEVIATIONS BY RACE AND SEX

		White Males		Black Males		Hispanic Males		Females	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
CPI	Do	29.34	5.33	27.13	5.08	27.72	6.29	29.64	6.42
	Cs	18.53	3.88	18.06	3.81	17.50	4.11	19.62	4.91
	Sy	25.46	4.42	24.45	3.77	24.10	5.62	25.90	4.22
	Sp	35.45	5.21	32.27	4.15	33.79	5.61	34.82	5.90
	Sa	21.75	3.28	20.21	3.17	20.94	4.20	21.90	3.60
	Wb	38.14	4.80	35.32	5.71	36.74	6.26	37.21	4.33
	Re	30.05	4.57	28.75	5.38	28.32	6.41	31.18	4.71
	So	37.13	5.11	36.07	5.50	36.19	6.85	36.56	4.50
	Sc	33.14	7.84	34.39	7.87	32.49	8.70	34.95	5.60
	To	22.35	4.98	18.79	5.46	18.97	5.37	22.82	4.99
	Gi	20.87	6.65	23.53	7.05	22.31	7.76	22.95	6.29
	Cm	26.27	2.05	24.44	3.08	25.21	3.70	25.72	1.97
	Ac	29.61	4.30	29.18	4.70	28.25	5.82	30.18	3.22
	Ai	18.74	4.14	16.34	4.07	16.47	4.21	19.15	4.27
	Ie	38.80	5.22	35.53	5.73	36.25	6.52	38.44	5.18
	Py	12.19	2.34	11.44	2.12	11.77	2.46	11.97	2.96
	Fx	8.13	3.59	6.68	2.91	6.77	3.28	7.85	3.54
	Fe	15.45	3.28	17.24	2.47	15.57	3.49	20.85	2.43
MMPI	L	5.14	2.36	6.02	2.92	5.68	3.01	5.58	2.78
	A	7.05	6.09	9.77	7.62	8.41	6.21	7.19	4.99
	R	15.40	4.14	16.34	4.38	14.85	3.94	16.36	3.96
	K	16.11	4.82	15.48	4.55	14.80	4.76	16.97	4.38
DFOS	SR	20.11	4.43	18.21	5.22	19.46	4.80	19.14	4.34
	CC	16.80	4.60	17.55	4.76	18.77	3.87	15.51	5.21
	NF	9.21	3.90	10.00	4.79	10.41	5.00	9.60	3.70
	RT	16.83	6.12	16.92	5.97	15.82	5.72	18.51	5.52
GZTS	R	19.93	3.74	19.02	4.28	19.39	3.59	19.46	3.40
	A	18.90	4.80	17.65	4.58	18.73	4.66	18.84	4.72
	E	22.57	4.55	20.55	5.38	22.94	4.28	22.11	4.30
	O	20.45	5.14	17.16	6.60	19.24	5.16	19.35	5.23
	F	16.83	5.00	15.34	5.91	16.36	5.75	17.16	4.87
	P	19.35	5.06	15.20	4.98	17.38	4.35	18.00	6.60
Number		238 to 243		90 to 97		66 to 68		37 to 39	

APPENDIX D

ADJUSTMENT FOR APPLICANT TEST TAKING SET

ADJUSTMENT FOR APPLICANT TEST TAKING SET

The regression equation for unaccepted applicants was computed by a stepwise regression analysis procedure which required an F value equal to 3.0 for each variable to enter the equation. The regression formula for SO only attained significance for the Good Impression (Gi) scale:

$$\hat{SO} = 31.980 + .3318\ (Gi)$$

Substituting for the officers' mean good impression score:

$$\hat{SO} = 31.980 + .3318\ (47.294)$$

$$\hat{SO} - 47.672 = \text{Unaccepted applicant mean when adjusted for test taking set.}$$

The regression formula for the Re scale used all three corrections:

$$\hat{Re} = 15.462 + .4843\ (Gi) + .5473\ (K) - .5129\ (L)$$

Substituting for the officers' mean fake scales we get:

$$\hat{Re} = 15.462 + .4843\ (47.294) + .5473\ (14.089) - .5129\ (4.218)$$

$$\hat{Re} = 43.914 = \text{Unaccepted applicant mean when adjusted for test taking set.}$$

APPENDIX E

TECHNICAL REPORT FOR THE CRITERION-RELATED OFFICER VALIDATION RESEARCH

APPENDIX E

TECHNICAL REPORT FOR THE CRITERION-RELATED OFFICER VALIDATION RESEARCH

Development of the Officer Performance Evaluation Scale

The evaluation scale was designed to measure the performance of officers across all critical aspects of their job. The most important dimensions of the HPD officer's job were outlined in the Critical Incident chapter in Volume IV. The categories listed in the appendices of that report and in Appendix B in this volume were used as the basis for development of the performance scale. Two research psychologists independently analyzed and regrouped the 13 major critical incident categories and 42 subcategories into performance dimensions suitable for evaluation. The research team then combined their dimensions, discussed minor differences, and settled on 20 performance dimensions. For the final scale each of the 20 dimensions had a definition and description of three to five levels of performance ranging from outstanding to very poor. Because evaluators often differ in their interpretation of what an outstanding or average officer is, examples explaining what an officer at each performance level might do were included after each of the three to five descriptions.

Following the above principles for construction of the performance rating scale, a definition, a description of five levels of performance (outstanding, above average, average, below average,

very poor), and a list of approximately 15 to 40 specific behavioral examples of officer performance were developed for each of the 20 dimensions. This preliminary performance rating scale then was subjected to an intensive review process by HPD Sergeants. Each dimension began with descriptions of the five levels of performance with the intention of having HPD Sergeants decide if certain dimensions were better suited to only three or four performance levels. The primary reason for this was that in some dimensions it is actually very difficult, if not impossible, to distinguish between above average and outstanding performance. For example, it is possible for most of us to distinguish between a dishonest and an extremely honest officer. But to try to distinguish between average, above average and outstanding honesty would be artificially creating more levels than actually can be discriminated by most supervisors. Therefore, it was left up to the Sergeants to say how finely the levels of performance for each dimension could be divided.

The behavioral examples of each dimension came primarily from the Critical Incident data in Appendix B. Two psychologists wrote as many examples as possible for each of the 20 dimensions. Most dimensions had between 15 and 40 examples. The lists were prepared so Sergeants could assign a scale value of one to five (one being equivalent to outstanding and five being equivalent to very poor) to each example.

A meeting was held with ten sergeants from the Patrol and Traffic Divisions. The purpose of the meeting was 1) to have the Sergeants review and make recommendations on the 20 dimensions and 2) to assign scale values independently to the examples.

For each of the 20 dimensions each Sergeant received one page with the dimension name, definition and descriptions, five performance levels and a second page with a listing of the behavioral examples for that particular dimension. Each dimension was reviewed for completeness, accuracy and readability. The lists of behavioral examples had two columns for the Sergeants to complete. First the Sergeants checked whether the example was appropriate for the dimension. Then each example that was appropriate was assigned a scale value of one to five.

Sergeants suggested which dimensions should have three or four performance levels rather than five. Their suggestions also included eliminating two of the twenty dimensions: marksmanship and pursuit driving. The reviewing supervisors did not feel Sergeants could adequately evaluate their officers on these two dimensions.

After this first meeting the research team made the recommended changes in the evaluation form and analyzed the scale values the ten Sergeants assigned to the behavioral examples. For each dimension, all examples were listed with the scores assigned

by each of the ten Sergeants. For each example means and standard deviations were computed. Examples rated as inappropriate were excluded. Means were rounded to the nearest whole number and examples with a standard deviation of 1.5 or smaller were listed under the appropriate performance level. Thus, a tentative performance evaluation form was prepared with 18 dimensions. Each dimension had one page with a definition of the dimension at the top, and three to five levels of performance with examples listed under each to help minimize different interpretations and expectations. This process resulted in anywhere from zero to fifteen examples listed under any particular performance level, with most having three to five examples.

A second meeting was held with six Sergeants from the Patrol and Traffic Divisions to develop the final form which would have at least one or two but not more than five examples for each performance level. To this end the Sergeants reviewed each performance level of all 18 dimensions and wrote, eliminated and/or revised examples until an adequate number were reached.

After this second meeting the final performance evaluation scale was prepared (see Appendix F). The evaluation scale was designed to minimize the disadvantages of either a rating or ranking format when used separately. The principal disadvantage of the rating format is that all officers could receive high evaluations and then it would be impossible to discriminate a

from above average officers. A forced distribution could have been established but was discarded for several reasons: the number of performance levels differed across dimensions and the number of officers to be evaluated by a Sergeant also varied greatly, from a few to many. Because this would have required a fairly complicated administration procedure, a forced rating system was not used.

The major disadvantage of only using a rating scale is that the difference between all individuals ranked is considered equivalent. In reality there may be large differences between some individuals but little or no difference between others. The traditional ranking scale does not allow for these differences to be identified properly, while the rating format does. However, the ranking format does force the supervisor to differentiate between individuals, and the supervisor cannot give everyone the same evaluation as they can with the rating format.

Because the rating and ranking formats counterbalance each other, a combination of the two was developed. The present scale required a Sergeant first to rate all officers on a particular dimension. Of the eighteen dimensions two were based on three point rating scales, fourteen on four point rating scales and two on five point rating scales. After rating all officers on a dimension the Sergeant was requested to rank order his officers on lines numbered one to sixty. In this way a Sergeant could rank a certain officer well above or below others

to help minimize the effect of tenure on evaluations. A list of all officers by shift in the Patrol and Traffic Divisions was obtained with information on each officer's tenure, sex and race.

The only way to find out which Sergeants could evaluate which officers was to ask the Sergeants. Thus, listings of all officers to be evaluated on each particular shift of a division were compiled. All sergeants on a shift were required to attend a training session where they reviewed the list of officers to be evaluated and crossed out the name(s) of any officer(s) they did not believe they could evaluate in terms of job performance. Of the 490 officers in the total potential sample, complete data and reliable ratings were obtained for 116 officers. Of this number, 95 were male, 21 were female, 106 were White, 5 were Black and 5 were Hispanic.

Training Sessions

Five training sessions were conducted with approximately 13 to 23 Sergeants at each session. A total of 83 Sergeants were scheduled for training. The purpose of the session was 1) to discuss the major problems supervisors have when evaluating subordinates and 2) to explain the evaluation scale and how it was to be completed. The first thirty minutes of the meeting was spent discussing general supervisory evaluation problems. The second thirty minutes was spent explaining the form and

reviewing the example in the performance evaluation form. The last hour was spent with Sergeants beginning the evaluation of their officers.

Most Sergeants completed officer evaluations on the first five to ten dimensions during this hour. After it was clear that everyone understood how to complete the scales, the Sergeants were given addressed, stamped envelopes in which to return the completed forms directly to the researchers within three to five days after the training session. Sergeants were informed that the ratings would be held in strict confidence by the researchers, and that the evaluations would be used for research purposes only.

Analysis

The return rate of the performance evaluation forms was 100 percent. However, five of the 83 forms were not usable. Reasons for unused evaluations included illness of Sergeant, death in a Sergeant's family, or Sergeant knowing only one or two officers on the list. All evaluations were coded and key-punched for subsequent data analysis. In addition to coding the rating scale value of one to five and the ranking value of one to sixty, a third score was recorded for each performance dimension - a stanine score. If a Sergeant evaluated ten or more officers on a dimension, the rank order of the officers was converted to a standard distribution with scores from

one to nine. This procedure standardized scores across Sergeants and divisions. In the one to sixty rating one Sergeant could have ranked fifteen officers on lines 60 through 45 with no blank spaces, while another Sergeant may have used lines 55 through 14 in the evaluation process. Since this third score (called the stanine) is the more traditional ranking method, the researchers also had the chance to compare results of the 1 to 60 ranking format with the more traditional ranking format.

In the initial analysis three sets of scores were used for each officer, ratings (1-3, 4 or 5), rankings (1-60), and stanines (1-9). The analysis showed that sergeants did spread their evaluations out across all performance levels as intended, rather than cluster names of officers at the top of each dimension. Therefore, the main reason for including rankings and stanines, as a backup in case ratings were not distributed over the entire scale, was no longer a problem. Initial reliability estimates of ratings, rankings and stanine scores showed that the ratings were more reliable than ranking and stanine scores. For these reasons the ranking and stanine scores were excluded from further analyses. All of the remaining analyses were carried out on just the ratings.

Reliability coefficients were computed between all Sergeants for each officer. That is, if two Sergeants evaluated one officer only one coefficient was computed; if three Sergeants

evaluated an officer three coefficients were computed, and so on. If more than one coefficient was computed for an officer, the coefficients were averaged (using a Z score transformation) so that there was one reliability coefficient for each officer's performance evaluation. Only officers with a coefficient of .4 or higher were kept in the sample. If the coefficient was averaged, no correlation lower than .3 between any pair of Sergeants was allowed. In addition, officers with only one evaluation were eliminated from the analyses since no reliability index was available for their evaluation.

In order to obtain one set of scores for each officer, all sergeants' evaluations of each officer were averaged to form a composite. The Sergeants' Confidence Ratings were squared and used as weights in the "averaging" procedure. This resulted in weighted means with the evaluations of the most confident Sergeants influencing the officer's final evaluation more heavily than less confident Sergeants.

After the product-moment correlation coefficients were computed between the five personality test scores and the 18 evaluation dimensions, two statistical corrections were necessary. The first correction was for the unreliability of the personality scores and evaluation scores. The original correlation coefficient assumed both measures had a reliability of 1.0. However, test-retest studies of the personality scores showed that the scores for individuals who took the test one year

apart only correlated .72 for the CPI Socialization/Delinquen scale, .71 for the CPI Responsibility scale and .7 for the emotional adjustment factor. Therefore, the original correlations had to be corrected so that only the reliable porti of the personality score was compared to the 18 performance evaluations.

The same correction was used for the 18 performance dimension. Two or more supervisors evaluated all officers and it was necessary to determine how similar evaluations were for all sergeants rating each officer. The maximum reliability correlation between sergeants was obtained because this would yield the most conservative increase in the validity coefficient. The reliability coefficient for performance ratings was .80. The formula used to correct the validity coefficient for unreliability of the personality scores and performance evaluation scores was

$$r' = \frac{r_{xy}}{\sqrt{r_{xx}r_{yy}}}$$

where r' was the theoretical correlation that would exist if personality scores x and performance ratings y were perfectly reliable, r_{xy} was the coefficient actually obtained, r_{xx} was reliability of x and r_{yy} was the reliability of y.

The second type of statistical correction made to the validity coefficient was a correction for restriction of range. The

restriction occurred because the range of officer scores on the personality test was smaller than the range for HPD applicant scores. The correction was necessary to show what the correlation would be if individuals from the entire range had been evaluated on their performance. The formula used was

$$r'' = \frac{r(\Sigma/\sigma)}{\sqrt{1 - r^2 + r^2(\Sigma^2/\sigma^2)}}$$

where σ and Σ represent the standard deviations for the restricted and unrestricted groups, respectively, and r and r" represent the corresponding correlation coefficients.

The standard deviations used in the correction of restriction of range for the personality test scores are listed in Table E1.

When both corrections were made to the data, the correction for unreliability always was made first. This provided a more conservative validity coefficient than if the correction for restriction of range had been applied first. In addition, if the correction for restriction of range were applied first, the reliability of the unrestricted sample must be used to correct for unreliability, and this reliability index was not available.

Table E2 lists the significant correlation coefficients before any corrections were computed. Table E3 lists the correlations after just correcting for unreliability of the personality scores and the performance evaluations. Table E4 shows the

TABLE E1

RESTRICTION OF RANGE DATA FOR PERSONALITY SCORES

	Applicants			Officers		
	Number	Mean	Standard Deviation	Number	Mean	Standard Deviation
Sex Standardized						
CPI Socialization/Delinquency Scale	405	49.810	9.369	115	49.899	9.171
CPI Responsibility Scale	405	49.289	9.888	115	45.570	8.979
Sex/Race Standardized						
CPI Socialization/Delinquency Scale[1]	405	.030	.966	115	.055	.984
CPI Responsibility Scale	405	.025	.975	115	.222	.946
Emotional Adjustment Factor	391	.022	.985	105	-.485	.905

[1]Correction was not necessary for these scores because there was not restriction of range.

TABLE E2

ORIGINAL CORRELATIONS[1] BETWEEN OFFICER PERSONALITY SCORES AND PERFORMANCE EVALUATIONS

	Socialization[2]		Responsibility[3]		Emotional Adjustment[4]
Performance Dimension	Sex Stan.	Sex/Race Stan.[5]	Sex Stan.	Sex/Race Stan.	Sex/Race Stan.
Conscientiousness to Duty		.1605*	.1583*	.1922**	
Perceptual Vigilance					
Safety Consciousness					
Thoroughness in Reporting	.1618*	.1721*	.2211***	.2560***	
Concern for Others					
Professional Conduct			.1754*	.2045**	.2145**
Judgment and Decision Making	.2051**	.2101**			
Physical and Emotional Restraint					.2404***
Relationships with Peers					
Effectiveness in Emergency/Stressful Situations					
Willingness to Risk Personal Safety - Courage					
Ability to Act Independently	.1585*	.1643*		.1741*	
Investigative Thoroughness		.1551*	.1654*	.1947**	
Honesty					
Physical Ability					
Interpersonal Effectiveness					.2017**
Job Knowledge				.1617*	
Overall Rating		.1613*			

[1]Number = 112.
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
*Significance level = .05.
**Significance level = .025.
***Significance level = .01.
****Significance level = .005.

TABLE E3

CORRELATIONS[1] BETWEEN OFFICER PERSONALITY SCORES AND PERFORMANCE DIMENSIONS

CORRECTED FOR UNRELIABILITY OF PERSONALITY SCORES AND PERFORMANCE EVALUATIONS

	Socialization[2]		Responsibility[3]		Emotional Adjustment[4]
Performance Dimension	Sex Stan.	Sex/Race Stan.[5]	Sex Stan.	Sex/Race Stan.	Sex/Race Stan.
Conscientiousness to Duty	.1988**	.2115**	.2100**	.2550****	
Perceptual Vigilance				.1672*	
Safety Consciousness					
Thoroughness in Reporting	.2132**	.2268***	.2934****	.3397****	
Concern for Others				.1782*	.1962**
Professional Conduct		.1618*	.2327***	.2713****	.2866****
Judgment and Decision Making	.2702****	.2768****	.1672*	.2019**	
Physical and Emotional Restraint	.1828*	.1918**			.3212****
Relationships with Peers					
Effectiveness in Emergency/Stressful Situations					
Willingness to Risk Personal Safety - Courage					
Ability to Act Independently	.2088**	.2165***	.2039**	.2310***	
Investigative Thoroughness	.1917**	.2044**	.2195***	.2583****	
Honesty	.1851**	.2020**	.5167*	.2014**	.1714*
Physical Ability			-.1584*	-.1556*	-.2023**
Interpersonal Effectiveness					.2695****
Job Knowledge	.1992**	.1959**	.1855**	.2146**	
Overall Rating	.2019**	.2125**			

[1]Number = 112.
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
*Significance level = .05.
** [illegible] level = .025.

TABLE E4

CORRELATIONS[1] BETWEEN OFFICER PERSONALITY SCORES AND PERFORMANCE EVALUATIONS

CORRECTED FOR RESTRICTION OF RANGE OF PERSONALITY SCORES

	Socialization[2]		Responsibility[3]		Emotional Adjustment[4]
Performance Dimension	Sex Stan.	Sex/Race Stan.[5]	Sex Stan.	Sex/Race Stan.	Sex/Race Stan.
Conscientiousness to Duty		.1605*	.1738*	.1980**	
Perceptual Vigilance					
Safety Consciousness					
Thoroughness in Reporting	.1652*	.1721*	.2422****	.2634****	
Concern for Others					.1594*
Professional Conduct			.1926**	.2105**	.2324***
Judgment and Decision Making	.2093**	.2101**		.1568*	
Physical and Emotional Restraint					.2601****
Relationships with Peers					
Effectiveness in Emergency/Stressful Situations					
Willingness to Risk Personal Safety - Courage					
Ability to Act Independently	.1618*	.1643*	.1689*	.1793*	
Investigative Thoroughness		.1551*	.1816*	.2005**	
Honesty				.1564*	
Physical Ability					-.1644*
Interpersonal Effectiveness					.2136**
Job Knowledge	.1544*			.1666*	
Overall Rating	.1564*	.1613*			

[1]Number = 112.
[2]Soc = CPI Socialization/Delinquency Scale.
[3]Resp = CPI Responsibility Scale.
[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.
*Significance level = .05.
**Significance level = .025.
***Significance level = .01.
****Significance level = .005.

correlations when corrected for restriction of range only. The final correlation coefficients after both corrections were made are reported in Table 17 of the main text of this Volume.

Table 17 lists the average ratings on the 18 dimensions for males and females. Table E6 lists the average ratings for Whites, Blacks and Hispanics. Because of the small number of Blacks and Hispanics, it was not possible to know definitely if minorities received lower scores than Whites. However, there were a number of significant differences between male and female officers. Females received higher ratings on thoroughness in reporting, concern for others and professional conduct, while males received higher ratings for effectiveness in an emergency/stressful situation, willingness to take risks, ability to act independently and physical ability. It was because of these differences that sex was partialled out of the correlations in Tables E2, E3 and E4.

All significant correlations were in the anticipated positive direction except for physical ability. Officers receiving high ratings on physical ability scored low on the responsibility and emotional adjustment scales.

TABLE E5

AVERAGE MALE AND FEMALE PERFORMANCE EVALUATIONS

Performance Dimension		Male N=95	Female N=21	t Value
Conscientiousness to Duty	Mean	3.32	2.93	
	Standard Deviation	.91	.88	1.78
Perceptual Vigilance	Mean	2.48	2.63	
	Standard Deviation	.71	.71	-.84
Safety Consciousness	Mean	2.27	2.30	
	Standard Deviation	.60	.64	-.24
Thoroughness in Reporting	Mean	2.42	2.05	
	Standard Deviation	.66	.56	2.36**
Concern for Others	Mean	2.44	1.86	
	Standard Deviation	.65	.59	3.83****
Professional Conduct	Mean	2.47	2.09	
	Standard Deviation	.59	.45	2.76***
Judgment and Decision Making	Mean	2.40	2.21	
	Standard Deviation	.70	.48	1.19
Physical and Emotional Restraint	Mean	2.34	2.12	
	Standard Deviation	.60	.55	1.53
Relationships with Peers	Mean	2.22	2.17	
	Standard Deviation	.56	.69	.36
Effectiveness in Emergency/ Stressful Situations	Mean	2.09	2.43	
	Standard Deviation	.64	.53	-2.21*
Willingness to Risk Personal Safety - Courage	Mean	1.94	2.64	
	Standard Deviation	.56	.50	-5.24****
Ability to Act Independently	Mean	2.30	2.65	
	Standard Deviation	.73	.56	-2.09*
Investigative Thoroughness	Mean	2.31	2.43	
	Standard Deviation	.73	.80	-.67
Honesty	Mean	2.06	1.92	
	Standard Deviation	.53	.57	1.06
Physical Ability	Mean	1.98	3.61	
	Standard Deviation	.50	.24	-22.07****[2]
Interpersonal Effectiveness	Mean	2.14	1.92	
	Standard Deviation	.53	.59	1.65
Job Knowledge	Mean	2.07	2.10	
	Standard Deviation	.49	.44	-.27
Overall Rating	Mean	3.04	3.16	
	Standard Deviation	.86	.89	-.60

[1] 1 = Outstanding, 5 = Poor.

[2] When standard deviations were significantly different at the .05 level, the separate variance estimate was used instead of the pooled variance estimate.

*Significant at .05 level.

**Significant at .025 level.

***Significant at .01 level.

****Significant at .005 level.

TABLE E6

AVERAGE WHITE, BLACK AND HISPANIC PERFORMANCE EVALUATIONS

Performance Dimension		Whites N=102	Blacks N=5	Hispanics N=
Conscientiousness to Duty	Mean	3.19	3.59	
	Standard Deviation	.89	1.08	
	t Value		-1.29	
Perceptual Vigilance	Mean	2.46	2.91	
	Standard Deviation	.68	.98	
	t Value		-1.87	
Safety Consciousness	Mean	2.24	2.49	
	Standard Deviation	.61	.61	
	t Value		-1.17	
Thoroughness in Reporting	Mean	2.29	2.71	
	Standard Deviation	.61	.97	
	t Value		-1.27[2]	
Concern for Others	Mean	2.31	2.55	
	Standard Deviation	.68	.47	
	t Value		-1.04	
Professional Conduct	Mean	2.38	2.48	
	Standard Deviation	.59	.39	
	t Value		-.50	
Judgment and Decision Making	Mean	2.34	2.49	
	Standard Deviation	.67	.75	
	t Value		-.63	
Physical and Emotional Restraint	Mean	2.29	2.32	
	Standard Deviation	.60	.58	
	t Value		-.12	
Relationships with Peers	Mean	2.19	2.51	
	Standard Deviation	.59	.56	
	t Value		-1.60	
Effectiveness in Emergency/ Stressful Situations	Mean	2.13	2.36	
	Standard Deviation	.61	.71	
	t Value		-1.10	
Willingness to Risk Personal Safety - Courage	Mean	2.03	2.22	
	Standard Deviation	.57	.84	
	t Value		-.96	
Ability to Act Independently	Mean	2.32	2.75	
	Standard Deviation	.70	.84	
	t Value		-1.74	
Investigative Thoroughness	Mean	2.28	2.71	
	Standard Deviation	.73	.90	
	t Value		-1.68	
Honesty	Mean	2.01	2.19	
	Standard Deviation	.54	.48	
	t Value		-1.00	
Physical Ability	Mean	2.28	2.16	
	Standard Deviation	.77	1.06	
	t Value		.46	
Interpersonal Effectiveness	Mean	2.10	1.98	
	Standard Deviation	.55	.56	
	t Value		.63	
Job Knowledge	Mean	2.05	2.18	
	Standard Deviation	.47	.54	
	t Value		-.77	
Overall Rating	Mean	2.99	3.45	
	Standard Deviation	.84	1.05	
	t Value		-1.53	

[1] 1 = Outstanding, 5 = Poor.

[2] When standard deviations were significantly different at the .05 level the separate variance estimate was used instead of the pooled variance estimate.

*Significant at .05 level. ***Significant at .01 level.

**Significant at .025 level. ****Significant at .005 level.

APPENDIX F

POLICE OFFICER PERFORMANCE EVALUATION SCALES

HOUSTON POLICE DEPARTMENT

POLICE OFFICER PERFORMANCE EVALUATION

VALIDATION OF SELECTION AND PROMOTION PROCEDURES STUDY

LIPSON, WILSON, FERGUSON AND WINICK, INC.
Management Consultants Dallas Houston Austin

GENERAL

The evaluation of an officer's on-the-job performance is a very important part of the Validation of Selection and Promotion Procedures Study presently being conducted for the Houston Police Department. At this time, certain sergeants from the patrol and traffic divisions are being asked to evaluate some officers under their supervision who have been hired since 1970. Attached you will find a list of officers in your division who are to be evaluated on 18 scales (indices of job performance). These 18 scales were primarily developed by a group of H.P.D. sergeants and are based on examples of police job behaviors collected from over 300 H.P.D. officers and sergeants.

Your evaluations will be used for *RESEARCH PURPOSES ONLY* to help evaluate H.P.D.'s selection requirements. After you complete the evaluations of the officers under your supervision, you will mail the rating forms directly back to LWFW. No one will see them but the researchers. Upon receipt of the completed forms, each individual will be given a number and only group scores will be studied. No individual officer will be identified. The evaluations will not be entered into anyone's records, nor will they in any way affect an officer's promotion or employment status. However, in making your evaluations, it is essential that you be as accurate as possible.

Before you begin evaluating the officers, please read the following words of caution carefully! Most supervisors encounter some basic problems when evaluating their subordinates. If the problems are pointed out ahead of time and you try to avoid them, the evaluations should be much more accurate.

The first problem is that some supervisors allow their personal opinion of how much they *like* or *dislike* a person to influence their ratings. It is natural for us to like people who are like ourselves. This is fine for our personal life, but it makes it difficult for us to put personal feelings aside when we rate how well someone is doing on the job. We all know some very effective workers who receive low performance ratings because the supervisor doesn't personally like them. On the other hand, supervisors sometimes rate people high just because they are personal friends. When you evaluate an officer, try to think *only* about his/her work behavior, not your personal like or dislike of him/her.

A second problem is that some supervisors have a tendency to rate everyone high; other supervisors rate almost everyone low; while other supervisors rate everyone as average. The fact is that most supervisors have a few exceptionally good and a few poor employees, with the remaining employees satisfactory or average. So keep this in mind when evaluating officers and do not rate everyone at the same level of performance.

A third problem is called the "Halo Error". This occurs when a supervisor rates his best officer very high on all the scales in the evaluation. For example, if, overall, John Doe is the best officer in the division, the sergeant might give him a high score on "Job Knowledge", "Safety Consciousness", "Judgment and Decision Making", and "Relationship with Peers". He probably does deserve a high score on some of these, or he wouldn't be the best officer in the division. However, just because he uses good judgment does not mean he gets along well with other officers. He may have a hard time working with many other officers and should receive a low score on this scale. Consider each scale *by itself* when evaluating the officer. Don't let his/her score or ability in one area affect the way you rate him/her in another. Remember, no one is all good or all bad; your best officer may be below average in one or more areas, while your worst officer may be above average in one or more areas.

PROCEDURE

Step 1 - First, read through the "Performance Evaluation Scales and Definitions" sheet so that you'll have an understanding of the 18 scales on which you will be evaluating the performance of the officers under your supervision. (See pages 6 and 7.)

Step 2 - Read the list of officers in your division who have been chosen for this study because they were hired since 1970. Cross out the names of all officers whose job performance you do not know well enough to evaluate. (*Your* list of officers is attached to the cover sheet.)

Step 3 - Turn to the first scale, "Conscientiousness to Duty". Reread the definition at the top of the page very carefully. Keeping this definition in mind, read the description and examples in the first

box. REMEMBER, the examples listed in italics under each description are only a few examples of what an officer fitting the description *might* do. Most of your attention should be focused on the description. The examples are just to help you understand a little better what an officer fitting that description *might* do - the officer has not necessarily done it.

Read through the remaining descriptions and examples in the other four boxes for the scale "Conscientiousness to Duty".

REFER TO EXAMPLE ON PAGES 8 AND 9 WHILE READING STEPS 4 AND 5.

Step 4 - Look at the first officer on your list of names and decide which description best fits him/her. Place his/her name in the box in Column A just to the right of the description and examples. Take the second officer on your list and place his/her name in the box in Column A next to the most appropriate description and examples. Continue doing this with the officers on your list until you have placed all the names next to the description and examples that come closest to describing each officer. Don't worry yet about the order of the officers *within* each box - that comes later.

Step 5 - After you have assigned all officers to one of the five descriptions and written their names in Column A, read through just the names of the officers you wrote next to the *first* description (the first box on the page). Notice in Column B there are numbered lines from 49 to 60 that correspond to this description. Line 60 is for the most outstanding officer, on down to line number 49, which would indicate an officer who just barely made it into the top category. You must now rank order the officers *within* each box. For example, if you have two officers, S. C. Vincer and D. W. Eckermann (see example), in Column A of the first box, you must decide which of the two is the most outstanding regarding "Conscientiousness to Duty". Next, decide how high up you want to rank the most outstanding officer. You might put his/her name on line 58 if you think some other officer could possibly be better than this one. Now decide where to rank the second officer in that box. You might feel there is very little difference between the two officers, so you would put the second officer on line 57. However, if you feel that although he/she is outstanding, he/she really isn't

as good as the officer on line 58, you would write his/her name lower down, from lines 49 to 56.

After ranking the officers in the first box, proceed to the box below it, read the names you wrote in Column A, and rank them in Column B of that box, using lines 37 to 48. Continue to do this for all the boxes under "Conscientiousness to Duty".

Looking at the last box on the page, you may, for example, have two or three officers' names in Column A. If you think one officer is just borderline, you would write his/her name on the top line of the box (line 12), but if an officer shows very little conscientiousness, you might use the very bottom line of that box (line 1).

Remember - if a name is in the second box under Column A, it must be in the second box under Column B. In addition, only one name can be written on any one line in Column B. *Please write neatly!*

Step 6 - After ranking all the officers under Column B for the scale "Conscientiousness to Duty", proceed to the next scale - "Perceptual Vigilance". Read carefully the definition and the four descriptions and examples. You will notice that this scale only has four boxes. Most of the scales have four boxes, but a couple have either three or five boxes, so be sure to read each description very carefully. You will also notice that the numbers in Column B are from 1 to 60 on all scales, no matter how many boxes. One is always the lowest and 60 is always the highest, but a 39 may be average in one but above average in another. Don't let this bother you. The important thing for each scale is the description in the left hand side of each box.

Go down your list of officers and write each name next to the most appropriate description and examples. After all the names have been written under Column A, go to the first box in Column B and rank these officers. Then rank the officers in each of the next three boxes of "Perceptual Vigilance".

When you have finished with "Perceptual Vigilance", proceed to "Professional Conduct". Follow the above procedure with this and all the remaining job performance rating scales.

Step 7 - Now that you have rated and ranked your subordinates on all 18 scales, we would like to know how confident you are in your ratings, *in general*, for each officer. You may feel extremely confident in your evaluations of certain officers, but not very confident in others. The purpose of the Confidence Rating scale is to allow you the opportunity to describe which officers' ratings you are the most confident of. Turn to the Confidence Rating scale at the very end of this booklet and write in the names of all officers you evaluated. Next, place a 1, 2, or 3 by each name to indicate how confident you are in your evaluation of each officer. This rating should reflect your overall confidence in your evaluation of an individual across all 18 scales.

Step 8 - Finally, turn to the "Importance Rating of Performance Evaluation Scales" sheet at the end of this booklet. Using a scale from one to four, rate the importance of each dimension as compared to all other dimensions.

Note: You may find that although you are able to evaluate a particular officer on most of the scales, there may be one or two scales on which you don't feel qualified to rate or rank the officer. In this case, do not evaluate that officer for that *one* scale, but go ahead and rate and rank all the other officers as you normally would for that scale.

When you have completed the ratings scales, please return them in the enclosed envelope directly to LWFW. If you have any questions, please do not hesitate to contact either Patt Gaudreau, Ron Crain or Jerry Dubin at 529-3015.

PERFORMANCE EVALUATIONS SCALES AND DEFINITIONS

Scale	Definition
Conscientiousness to Duty	Taking law enforcement and other job responsibilities seriously; adhering to policies, regulations, orders, and established work procedures; showing initiative in undertaking assignments and responsibilities; making sure duties are performed in a timely and conscientious manner.
Perceptual Vigilance	Detecting and responding to unusual or suspicious situations, persons, or activities; remaining alert and observing small details during routine or monotonous activities; ability to remember various types of details over extended periods of time.
Professional Conduct	Avoiding temptations to abuse police authority; being objective and fair with all people; maintaining good morals and socially acceptable character; and remaining above reproach in personal and professional activities.
Safety Consciousness	Exercising caution when approaching or dealing with actors or others; showing concern for the safety of others; calling for assistance in potentially dangerous situations; driving automobile carefully under all conditions; handling weapons in a mature and responsible manner.
Written and Oral Reporting	Making sure all reports are accurate and complete.
Concern for Others	Showing a desire and taking time to help people, even though not required; showing a true interest and concern for other's problems; being courteous to people and treating them with respect; being friendly and positive in day-to-day contact with the public.
Judgment and Decision Making	Ability to make practical, common-sense decisions; to evaluate and understand problems; to develop logical solutions and make on-the-spot decisions appropriate to the situation, circumstances, and facts-at-hand; thinking of all possible alternatives and consequences rather than jumping to conclusions.
Physical and Emotional Restraint	Holding one's temper; maintaining self-control and restraint when subjected to verbal or physical abuse; using appropriate verbal and physical force to control or apprehend persons.
Relationships with Peers	Getting along well with peers and establishing effective working relationships; functioning effectively as a member of a team in the accomplishment of work objectives; willingness to help new or inexperienced officers learn procedures.
Effectiveness in Emergency/ Stressful Situations	Ability to withstand stress and pressure; responding rationally, calmly, and effectively in emergency and/ or stressful situations.
Willingness to Risk Personal Safety - Courage	Overcoming fear and/or risking personal safety in dangerous situations.
Ability to Act Independently	Ability to work independently or without close supervision; taking charge of a situation and insuring that the job gets done; acting as a leader by taking command of a problem situation; retaining control when challenged or confronted.

Scale	Definition
Investigative Thoroughness	Being thorough in gathering and organizing facts, evidence, and information; actively searching out and recognizing relevant information.
Honesty	Adhering to all laws and being honest at all times.
Physical Ability	Ability to handle all physical demands which are encountered on the job.
Interpersonal Effectiveness	Ability to relate effectively with a wide variety of people; getting ideas across to others; establishing rapport; being able to persuade and influence the behaviors of others; interacting spontaneously with others to gain their cooperation.
Job Knowledge	Having a good working knowledge of the law, procedures, and various techniques or other information required to perform job responsibilities effectively.
Overall Rating	Consider all of the aspects of the police officer's job and the individual's overall effectiveness as a police officer.

SAMPLE LIST OF OFFICERS

R. E. Weller

A. L. Thane

S. C. Vincer

D. K. Thornton

T. A. Schulman

A. J. Edgemore

R. D. Knowles

~~L. L. Lastovica~~

~~J. T. Harvey~~

L. M. Iles

~~B. C. Grace~~

D. W. Eckerman

D. L. Jensen

C. L. Burrell

D. J. Butera

E. L. Canton

H. J. Grove

R. B. Box

P. P. Hinkle

~~O. K. Madison~~

X. A. Couch

EXAMPLE

CONSCIENTIOUSNESS TO DUTY

EXAMPLE

Taking law enforcement and other job responsibilities seriously; adhering to policies, regulations, orders, and established work procedures; showing initiative in undertaking assignments and responsibilities; making sure duties are performed in a timely and conscientious manner.

List in the box to the right under Column A those officers who:	Column A	Column B
Are exceptionally conscientious about their duties. They should be among the most conscientious in the department. It might be expected, for example, that these officers would: *Set up an investigation of a crime on own time.* *Perform work other officers have shoved aside.*	S C. Vincer O. W Eckelman	D.W. Eckelman 59 S C Vincer 51
Are highly conscientious about their duties. They should be more conscientious than most other officers. Examples include: *Taking on additional assignments without being asked.* *Volunteering for additional duties which most other officers avoid.* *Offering to help other officers who are overloaded with work.*	T.A. Schulman L. M Ilea D. J. Buttra X. A. Couch	D. J. Buttra 44 X. A. Couch 43 L. M. Ilea 41 T.A. Schulman 39
Are conscientious about their duties. They should be as conscientious as most other officers. Examples include: *Always showing up in court at appointed time.* *Always completing the offense reports even if it is time to quit.* *Consistently projecting a neat appearance.*	R. E. Weller A. L. Thane A. J. Edgemore R. O Knowles E. L. Canton H. J. Grove R. B. Box	R. B. Box 36 R. O. Knowles 34 A. L. Thane 32 A. J. Edgemore 31 R. E. Weller 30 H. J. Grove 28 E. L. Canton 26
Are conscientious about their duties the majority of the time, but on occasion fail to be conscientious. Overall, these officers are probably not as conscientious as most officers. Examples include: *Often arriving late for work with a poor excuse.* *Conducting a quick investigation for cases he/she does not consider important.* *Cutting an investigation short if it were close to quitting time.* *Arriving for work wearing a dirty or torn uniform.*	O. K. Thornton C. L. Burrell P. P. Hinkle	P. P. Hinkle 24 O. K. Thornton 20 C. L. Burrell 14
Have not been conscientious about their duties on several occasions. Most other officers are more conscientious than these officers. Examples include: *Speeding away from an accident to get out of making a report.* *Letting an actor go rather than going through the trouble of filing charges.* *Failing to show up in court to testify because he/she was working an extra job.* *Disobeying direct orders from a supervisor.*	D. L. Jenson	D. L. Jenson 8

JOB PERFORMANCE EVALUATION SCALES

CONSCIENTIOUSNESS TO DUTY

Taking law enforcement and other job responsibilities seriously; adhering to policies, regulations, orders, and established work procedures; showing initiative in undertaking assignments and responsibilities; making sure duties are performed in a timely and conscientious manner.

List in the box to the right under Column A those officers who:	Column A	Column B
Are exceptionally conscientious about their duties. They should be among the most conscientious in the department. It might be expected, for example, that these officers would: *Set up an investigation of a crime on own time.* *Perform work other officers have shoved aside.*		60 59 58 57 56 55 54 53 52 51 50 49
Are highly conscientious about their duties. They should be more conscientious than most other officers. Examples include: *Taking on additional assignments without being asked.* *Volunteering for additional duties which most other officers avoid.* *Offering to help other officers who are overloaded with work.*		48 47 46 45 44 43 42 41 40 39 38 37
Are conscientious about their duties. They should be as conscientious as most other officers. Examples include: *Always showing up in court at appointed time.* *Always completing the offense reports even if it is time to quit.* *Consistently projecting a neat appearance.*		36 35 34 33 32 31 30 29 28 27 26 25
Are conscientious about their duties the majority of the time, but on occasion fail to be conscientious. Overall, these officers are probably not as conscientious as most officers. Examples include: *Conducting a quick investigation for cases he/she does not consider important.* *Cutting an investigation short if it were close to quitting time.* *Arriving for work wearing a dirty or torn uniform.*		24 23 22 21 20 19 18 17 16 15 14 13
Have not been conscientious about their duties on several occasions. Most other officers are more conscientious than these officers. Examples include: *Speeding away from an accident to get out of making a report.* *Letting an actor go rather than going through the trouble of filing charges.* *Failing to show up in court to testify because he/she was working an extra job.* *Disobeying direct orders from a supervisor.*		12 11 10 9 8 7 6 5 4 3 2 1

PERCEPTUAL VIGILANCE

Detecting and responding to unusual or suspicious situations, persons, or activities; remaining alert and observing small details during routine or monotonous activities; ability to remember various types of details over extended periods of time.

List in the box to the right under Column A those officers who are:	Column A	Column B
Exceptionally vigilant. They should be more observant than most other officers in the department. It might be expected, for example, that these officers would: *Memorise license numbers on the hot sheet to be able to spot stolen cars.* *Remember descriptions, names, and addresses of actors.* *Constantly be on the lookout for vehicles or persons matching wanted descriptions.* *Compile a list of persons with same m.o. living or hanging around in the general vicinity due to a rash of burglaries in a residential area.* *Check the crime bulletin each day to identify recent crime spots in their district. They would spend extra time patrolling these areas.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Vigilant. They should be as observant as most other officers. Examples include: *Noticing a suspicious looking person.* *Noticing if a car has been sitting in an unusual spot for a long period of time.* *Spotting items that are likely to be stolen.* *Seeing a traffic violator trying to hide something in his/her car when stopped.* *Remembering information given over the radio earlier in the shift that is relevant to a later call.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Vigilant the majority of the time, but occasionally they have been less observant than they should have been. Overall, they are probably not as observant as most other officers. Examples include: *Not noticing vehicles or persons who match wanted descriptions.* *Not paying attention and forgetting information given over the radio.* *Failing to notice suspicious looking persons.* *Not noticing cars that have been sitting in an unusual spot for a long period of time.* *Failing to recognize that items are likely to be stolen.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often not observant. Most other officers are more vigilant than this officer. Examples include: *Running a registration check without noticing the license plate was outdated.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

SAFETY CONSCIOUSNESS

Exercising caution when approaching or dealing with actors or others; showing concern for the safety of others; calling for assistance in potentially dangerous situations; driving automobile carefully under all conditions; handling weapons in a mature and responsible manner.

List in the box to the right under Column A those officers who are:	Column A	Column B
Highly safety conscious. They should be more safety conscious than most other officers. It might be expected, for example, that these officers would: *Search an actor even though other officers said they already did.* *Drive carefully in congested areas while pursuing an actor.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Safety conscious. They should be as safety conscious as most other officers. Examples include: *Always being sure to search an actor very carefully.* *Paying careful attention to actions of the occupants in a car that they stopped.* *Calling for assistance rather than trying to capture a dangerous actor single handedly.* *Waiting for backup before approaching a house occupied by a dangerous person.* *Being prepared for possible gunfire when approaching family disturbances.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Safety conscious in most situations, but on occasion they have failed to exercise sufficient caution. Overall, they are probably not as safety conscious as other officers. Examples include: *Letting a situation get out of hand before calling for assistance.* *Not being prepared for an attack when searching an actor.* *Approaching family disturbances without being prepared for gunfire.* *Leaving gun inside an unlocked and unoccupied police car.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often not very safety conscious. Most other officers are more safety conscious than these officers. Examples include: *Turning his/her back on a prisoner.* *Putting apprehension of an actor before protection of his/her partner.* *Failing to search an actor.* *Shooting someone before being sure who it is.* *Carelessly pointing a gun at someone while unloading.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

WRITTEN AND ORAL REPORTING

Making sure all reports are accurate and complete.

List in the box to the right under Column A those officers who:	Column A	Column B
Are highly skilled at written and oral reporting. Their reports should be more accurate and complete than reports for most other officers. It might be expected, for example, that these officers would: *Include even the most minor details in a report.* *Seldom lose a case in court because of the thoroughness with which they prepared their reports.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Prepare good written and oral reports. Their reports should be as accurate and complete as most other officers'. Examples include: *Checking with the complainant to make sure all property is listed in a burglary report.* *Proofreading reports to make sure they are accurate.* *Using correct grammar and spelling in a report.* *Carefully separating opinion from fact in their reports.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Usually prepare acceptable repor , but some reports are not as accurate or complete as they should be. Overall, their reports are probably not as well prepared as most other officers' reports. Examples include: *Failing to list all stolen property in a burglary report.* *Misspelling a name in a report, making it difficult to obtain a copy from the Records Division for follow-up.* *Completing all spaces n report properly, but being too brief in the written narrative.* *Losing a case in court because of failure to include all important facts in the offense report.* *Confusing fact with opinion in reports.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often prepare inaccurate and incomplete reports. Most other officers do a better jcb of reporting than these officers. Examples include: *Writing reports that are unintelligible because of poor grammar and spelling.* *Being unable to give accurate testimony in court because of a sloppily prepared report.* *Filing an incomplete report and having to return to the scene to collect additional information.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

CONCERN FOR OTHERS

Showing a desire and taking time to help people, even though not required; showing a true interest and concern for other's problems; being courteous to people and treating them with respect; being friendly and positive in day-to-day contact with the public.

List in the box to the right under Column A those officers who:	Column A	Column B
Are highly concerned with others. They should be more people oriented than most other officers. It might be expected, for example, that these officers would: *Go out of their way to obtain information for someone.* *Help an elderly man who was robbed after arriving in town by bus to get a place to stay and a meal.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Are concerned about others. They should be as people oriented as most other officers. Examples include: *Taking the time to explain laws and procedures to citizens.* *Voluntarily assisting a stalled motorist.* *Making sure an injured prisoner gets medical treatment before taking him/her to jail.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Show concern for others in the majority of situations, but have shown a lack of interest on occasion. Overall, they are probably not as people oriented as other officers. Examples include: *Not going to any trouble to obtain information for someone.* *Only giving directions and refusing to escort a lost motorist to a confusing location, even though he/she is not busy.* *Refusing to answer questions from prisoners about how to get out of jail.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often fail to show concern for others. Most other officers are more people oriented than these officers. Examples include: *Showing no sympathy for the spouse of a person killed at the scene of a crime.* *Refusing to apologize to a citizen for a false accusation.* *Usually questioning witnesses in a rude manner.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

PROFESSIONAL CONDUCT

Avoiding temptations to abuse police authority; being objective and fair with all people; maintaining good morals and socially acceptable character; and remaining above reproach in personal and professional activities.

List in the box to the right under Column A those officers who:	Column A	Column B
Demonstrate very high professional conduct. They should be more professional than most other officers. It might be expected, for example, that these officers would: *Refuse a discount on meals, entertainment or services because they feel it to be unprofessional.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Demonstrate good professional conduct. They should be as professional as most other officers. Examples include: *Applying the law equally to all persons.* *Not letting personal problems at home affect their work.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Are professional in most situations, but on occasion their behavior may have been questionable. Overall, they may not be as professional as other officers. Examples include: *Harassing long-haired teenage males on minor traffic violations.* *Acting after listening to only one side of a story.* *Feeling that their meals in restaurants should be discounted.* *Overreacting when someone does not listen to or obey him/her.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Have demonstrated unprofessional behavior. Most other officers are more professional than these officers. Examples include: *Using police authority to harass individuals of minority groups that they are prejudiced against.* *Writing excessive tickets to get back at someone who turned in a complaint on him/her.* *Drinking while on duty.* *Bringing a friend to ride in the police car and driving off in harassing attempts.* *Forming [illegible] in a public place during off-duty hours.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

JUDGMENT AND DECISION MAKING

Ability to make practical, common-sense decisions; to evaluate and understand problems; to develop logical solutions and make on-the-spot decisions appropriate to the situation, circumstances, and facts-at-hand; thinking of all possible alternatives and consequences rather than jumping to conclusions.

List in the box to the right under Column A those officers who:	Column A	Column B
Use exceptionally good judgement. They should be better decision-makers than most other officers. It might be expected, for example, that these officers would: *Be able to make a good and quick decision in an exceptionally unusual or unexpected situation.* *Never allow their emotions or feelings to influence or interfere with the facts when making a decision.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Use good judgment. They should be as good decision-makers as most other officers. Examples include: *Deciding to let parents handle a child's problem rather than taking him/her in for a minor offense if he/she has no record.* *Letting someone off for a marginal violation, depending upon circumstances, rather than following the letter of the law.* *Overlooking a traffic violation for a confused out-of-towner.* *Knowing when to act alone or when to wait for back-up support.* *Getting all the facts about a situation before determining who is at fault.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Use good judgment in most situations, but on occasion have used questionable judgment. Overall, they are probably not as good decision-makers as most officers. Examples include: *Acting on impulse without thinking about the possible consequences of his/her actions.* *Acting alone when he/she should have waited for back-up support.* *Being inflexible and following orders or procedures blindly, even though circumstances argue against it.* *Jumping to conclusions without getting all the facts about a situation.* *Hauling a child in for a minor offense rather than taking him/her to his/her parents to see if they can handle it.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often fail to use good judgment. Most other officers are better decision-makers than these officers. Examples include: *Handcuffing an actor to the steering wheel of the patrol car and leaving the keys in the ignition.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

PHYSICAL AND EMOTIONAL RESTRAINT

Holding one's temper; maintaining self-control and restraint when subjected to verbal or physical abuse; using appropriate verbal and physical force to control or apprehend persons.

List in the box to the right under Column A those officers who:	Column A	Column B
Demonstrate an exceptional amount of physical and emotional restraint. They should have more self-control than most other officers. It might be expected, for example, that these officers would: *Prevent another officer from roughing-up a traffic violator who led them on a high-speed chase.* *Convince an actor to hand over a gun used to kill someone instead of shooting the actor when they had the opportunity.* *Remaining calm if an actor were to spit in their faces.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Demonstrate good physical and emotional restraint. They should have as much self-control as most other officers. Examples include: *Not physically harming an actor to get a confession.* *Remaining polite to a traffic violator who was using abusive language and insulting him/her.* *Talking politely to a traffic violator.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Display appropriate physical and emotional restraint on most occasions, but have overreacted in some situations. They probably do not have as much self-control as most other officers. Examples include: *Screaming at bystanders to clear an area rather than politely asking them to leave.* *Smarting-off and shouting back at a citizen who is insulting him/her.* *Immediately wanting to push and grab people upon arriving at the scene of a large disturba...*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Display inappropriate physical or verbal aggression on a number of occasions. Most other officers display more self-control than these officers. Examples include: *Hitting a witness and threatening physical harm if he/she did not tell all he/she knows.* *Hitting an actor arrested on a burglary alarm call two or three times for no apparent reason.* *Hitting a drunk with a nightstick to awaken him/her.* *Using abusive language to a traffic violator who was being polite.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

RELATIONSHIPS WITH PEERS

Getting along well with peers and establishing effective working relationships; functioning effectively as a member of a team in the accomplishment of work objectives; willingness to help new or inexperienced officers learn procedures.

List in the box to the right under Column A those officers who:	Column A	Column B
Get along exceptionally well with all other officers. They work easily with any other officer in the department. It might be expected, for example, that these officers would: *Welcome constructive criticisms from other officers.* *Work well with all officers, regardless of personal feelings.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Have a good relationship with their peers. They usually get along well with most of the other officers. Examples include: *Assisting partner who is trying to physically subdue two actors.* *Being willing to try the suggestions from other officers about how to investigate a case.* *Always being ready to back up partner if attacked.* *Always answering "assist the officer" calls.* *Staying at the scene of a crime to help other officers investigate.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Get along well with many officers, but have difficulty working with some. Most other officers probably get along better with their peers than these officers do. Examples include: *Avoiding helping a rookie learn how to perform his/her assignments.* *Refusing to take calls they do not like to handle, causing other officers to have to take them.* *Refusing to work with certain officers because of personal dislikes.* *Leaving the scene of a crime so other officers would have to investigate.* *Always insisting on following their decisions on how to investigate a case over the suggestions of other officers.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Have trouble getting along with many of the other officers in the department. Examples include: *Refusing to assist partner who is trying to physically subdue two actors.* *Being hesitant to back up his/her partner if attacked.* *Criticizing fellow officer in front of citizens.* *Leaving partner alone with dangerous actors.* *Failing to answer "assist the officer" calls.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

EFFECTIVENESS IN EMERGENCY/STRESSFUL SITUATIONS

Ability to withstand stress and pressure; responding rationally, calmly, and effectively in emergency and/or stressful situations.

List in the box to the right under Column A those Officers who:	Column A	Column B
Are exceptionally effective in an emergency situation. They should react better than most other officers under stress. It might be expected, for example, that these officers would: *Be able to think and react quickly during an emergency situation.* *Be able to formulate effective plans of actions during emergencies.* *Remain calm enough to return fire if shot in the leg.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Are effective in emergency situations. They should react as well as most other officers under stress. Examples include: *Being able to keep their composure during a gun battle and return fire.* *Giving very accurate and detailed information over the radio during a high-speed chase.* *Giving dispatch all pertinent information when calling for emergency assistance.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Respond well in most emergency situations, but on occasion have not been as effective as they should have been. They are probably not as effective as most officers in stressful situations. Examples include: *Becoming too excited to remember to give location to dispatcher when calling for assistance.* *Becoming confused and giving the wrong information over the radio during a high speed chase.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often fail to respond effectively in emergency situations. Most other officers react better under stress than these officers. Examples include: *Freezing up during a gun battle and being unable to use his gun.* *Freezing up and not being able to function effectively during an emergency situation.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

WILLINGNESS TO RISK PERSONAL SAFETY - COURAGE

Overcoming fear and/or risking personal safety in dangerous situations.

List in the box to the right under Column A those officers who are:	Column A	Column B
Highly courageous. They should be more courageous than most other officers. It might be expected, for example, that these officers would: *Approach an emotionally or mentally ill person who is armed with a gun.* *Go into a burning building to help people escape.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Courageous. They should be as courageous as most other officers. Examples include: *Volunteering for dangerous assignments.* *Not backing down and leaving if intimidated by a group of hostile people.* *Telling his/her partner to stay and radio for assistance while he goes after a dangerous actor.* *Not hesitating to stop a car full of people on a traffic violation in a rough neighborhood.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Usually courageous. However, there are times when they are probably not as courageous as other officers. Examples include: *Being afraid to stop a car full of people on a traffic violation in a rough neighborhood.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often not courageous. Most other officers are more courageous than these officers. Examples include: *Being afraid to go into a burning building to rescue people, even though other officers were going in.* *Running from the room when an actor pulls a gun on his/her partner.* *Being afraid to go into a building where a burglar is known to be.* *Being afraid to approach a car stopped after a high speed chase.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

ABILITY TO ACT INDEPENDENTLY

Ability to work independently or without close supervision; taking charge of a situation and insuring that the job gets done; acting as a leader by taking command of a problem situation; retaining control when challenged or confronted.

List in the box to the right under Column A those officers who:	Column A	Column B
Are independent. They should be more self-reliant than most other officers. It might be expected, for example that these officers would: *Take the responsibility of controlling the scene at an emergency until a supervisor arrives.* *Take charge of a confusing situation where other officers are unable to.* *Organize bystanders into a rescue team to save someone's life.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Are independent. They are as self-reliant as most other officers. Examples include: *Being able to direct other officers who arrive at the scene to assist.* *Not allowing an unruly crowd to interfere with their duties.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Are independent in most situations, but on occasion have not taken the independent action necessary for the particular situation. They are probably not as self-reliant as most officers. Examples include: *Failing to tell officers who arrived to assist what areas to cover.* *Being unable to make resisting witnesses stay and give information.* *Being unable to prevent an unruly crowd from interfering with their duties.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often fail to take necessary independent action in critical situations. Most other officers are more self-reliant than these officers. Examples include: *Calling for assistance from a supervisor even on routine calls.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

INVESTIGATIVE THOROUGHNESS

Being thorough in gathering and organizing facts, evidence, and information; actively searching out and recognizing relevant information.

List in the box to the right under Column A those officers who:	Column A	Column B
Are very good investigators. They should be more thorough than most other officers. It might be expected, for example, that these officers would: *Find fingerprints in <u>unusual</u> places as a result of thorough checking.* *Follow up all leads, even the smallest details.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Are good investigators. They should be as thorough as most other officers. Examples include: *Conducting a thorough search of a building on a burglar alarm call.* *Interviewing all possible witnesses.* *Looking closely for fingerprints at the scene of a crime.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Are thorough in the majority of their investigations, but have conducted some careless investigations. Overall, they are probably not as thorough investigators as most other officers. Examples include: *Not checking background information on actors.* *Only following up major leads and ignoring minor details.* *Thinking of only the most obvious motive for a crime.* *Failing to interview all witnesses.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Often do not conduct careful investigations. Most other officers' investigations are more thorough than these officers. Examples include: *Undertaking an investigation in a haphazard manner.* *Failing to secure evidence at the scene of a crime.* *Carelessly picking up a gun at the scene of a crime so fingerprints could not be taken.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

HONESTY

Adhering to all laws and being honest at all times.

List in the box to the right under Column A those officers:	Column A	Column B
Who are extremely honest. They should be more honest than most other officers. It might be expected, for example, that these officers would: *Turn in another officer to a supervisor for stealing.* *Admit that a citizen's complaint against them is valid.* *Turn in a friend if they know he/she has stolen goods.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Who are honest. They should be as honest as most other officers. Examples include: *Reporting and returning all confiscated or recovered property.* *Keeping another officer from stealing items when investigating a burglar alarm call at a store.* *Reporting attempted bribes to a supervisor.* *Accepting the blame for a traffic accident in a police car that was his/her own fault.* *Turning in a wallet and the contents if he/she found it on the street.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Who are honest in most situations, but on occasion their behavior has been suspect. Overall, these officers may not be as honest as most other officers. Examples include: *Blaming a citizen for a traffic accident which was really the officer's fault.* *Lying to his her supervisor about a citizen's complaint against him/her.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Whose honesty has been questioned more than once. Most other officers are probably more honest than these officers. Examples include: *Accepting bribes to ignore traffic violations.* *Keeping a couple of bottles of confiscated liquor for personal use.* *Accepting goods from a friend that he/she knows are stolen.* *Failing to turn in all confiscated or recovered property.* *Pretending he she didn't see another officer take an inexpensive item while investigating a burglar alarm call at a store.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

PHYSICAL ABILITY

Ability to handle all physical demands which are encountered on the job.

List in the box to the right under Column A those officers who are:	Column A	Column B
In excellent physical condition and are able to handle all of the physical demands of the job. They should be among the most physically fit officers in the department. It might be expected, for example, that these officers would: *Be able to physically apprehend an actor of average size after catching up with him/her after a one mile chase.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46
Physically able to handle the demands of the job. They should be as capable as most other officers in any situation. Examples include: *Being able to subdue a struggling actor of average size.* *Being able to pull an unconscious man out of a burning car.* *Being able to run as fast as an actor of average speed and catching up with him in a chase.* *Being able to lift and carry an unconscious woman from a burning apartment.*		45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
Physically able to handle most situations, but on occasion have not been able to handle a situation that most other officers could have handled. They probably do not handle the physical demands of the job as well as most other officers. Examples include: *Being unable to run as fast as an actor of average speed and losing him in the chase.* *Being too tired to physically apprehend an actor of average size after catching up with him after a five block chase.*		30 29 28 27 26 25 24 23 22 21 20 19 18 17 16
Not able to handle a number of the physical demands of the job. They are not as physically able as most other officers. Examples include: *Being unable to climb over a back yard fence while chasing an actor.*		15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

CONTINUED

4 OF 5

INTERPERSONAL EFFECTIVENESS

Ability to relate effectively to a wide variety of people; getting ideas across to others; establishing rapport; being able to persuade and influence the behaviors of others; interacting spontaneously with others to gain their cooperation.

List in the box to the right under Column A those officers who are:	Column A	Column B
Highly effective in interpersonal relations. They should be more effective than most other officers. It might be expected, for example, that these officers would: *Be able to calm down a mentally disturbed person and talk him/her into giving up his/her gun.* *Be able to get ideas across to a mentally retarded person.* *Be able to handle a <u>difficult</u> family disturbance without calling for a back up unit or assistance.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
Effective in interpersonal relations. They should be as effective as most other officers. Examples include: *Being able to relate effectively to neighborhood groups.* *Being able to talk two groups of people out of fighting.*		40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21
Effective in the majority of interpersonal relations, but do mishandle some situations. Overall, they are probably not as effective as most other officers. Examples include: *Getting a hostile group even angrier and starting a fight.* *Talking to an emotionally disturbed person in a demeaning manner, causing him/her to become even more upset.* *Aggravating hostile prisoners.*		20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

JOB KNOWLEDGE

Having a good working knowledge of the law, procedures, and various techniques or other information required to perform job responsibilities effectively.

List in the box to the right under Column A those officers who have:	Column A	Column B
Exceptionally good knowledge of the job. They should be the most knowledgeable in the department. It might be expected, for example, that these officers would: *Be able to give citizens information on almost all criminal matters.* *Stay abreast of almost all of the latest laws and court rulings.* *Usually know the precise penal code section to apply to a case, avoiding ambiguous or wrong charges.*		60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41
Good knowledge of the job. They should be as knowledgeable as most other officers. Examples include: *Knowing correct procedures for securing the scene of a crime so a proper investigation can be made.* *Being able to answer probationary officers' questions about work procedures.* *Always knowing to give legal warning to an actor.* *Knowing when something was a civil rather than a criminal matter.* *Knowing the correct procedure to follow when answering calls.*		40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21
Sufficient job knowledge to handle most situations, but get confused or lack knowledge in some. Overall, they would probably not be as knowledgeable as other officers. Examples include: *Not knowing how to collect evidence so it will be admissible in court.* *Not knowing correct procedures for securing the scene of a crime so a proper investigation can be made.* *Not being able to answer probationary officers' questions about work procedures.* *Misinforming a citizen on a legal matter through lack of knowledge.* *Not knowing to notify the proper law enforcement agency when arresting someone outside jurisdiction.*		20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

OVERALL RATING

Consider all of the aspects of the police officer's job and the individual's overall effectiveness as a police officer.

List in the box to the right under Column A those officers:	Column A	Column B
Who are among the *most outstanding* officers in the department. They would be effective in any situation.		60 59 58 57 56 55 54 53 52 51 50 49
Whose overall effectiveness is *above average*. They would be more effective than the average officer.		48 47 46 45 44 43 42 41 40 39 38 37
Whose overall effectiveness is *about average*. They would be as good as the average officer.		36 35 34 33 32 31 30 29 28 27 26 25
Whose overall effectiveness is *slightly below average*. They would not be as effective as most other officers.		24 23 22 21 20 19 18 17 16 15 14 13
Whose overall rating is *very poor*. These officers cannot seem to do anything right.		12 11 10 9 8 7 6 5 4 3 2 1

CONFIDENCE RATINGS

How confident are you that your evaluations are accurate descriptions of each officer's job performance?

1 = not very confident

2 = confident

3 = extremely confident

	Officer	Rating
1.	_____	1. _____
2.	_____	2. _____
3.	_____	3. _____
4.	_____	4. _____
5.	_____	5. _____
6.	_____	6. _____
7.	_____	7. _____
8.	_____	8. _____
9.	_____	9. _____
10.	_____	10. _____
11.	_____	11. _____
12.	_____	12. _____
13.	_____	13. _____
14.	_____	14. _____
15.	_____	15. _____
16.	_____	16. _____
17.	_____	17. _____
18.	_____	18. _____
19.	_____	19. _____
20.	_____	20. _____
21.	_____	21. _____
22.	_____	22. _____
23.	_____	23. _____
24.	_____	24. _____
25.	_____	25. _____
26.	_____	26. _____
27.	_____	27. _____
28.	_____	28. _____
29.	_____	29. _____
30.	_____	30. _____
31.	_____	31. _____
32.	_____	32. _____

Your Division: _____

IMPORTANCE RATING OF PERFORMANCE EVALUATION SCALES

How important are each of the following job dimensions for success as a police officer working in your division?

1 = not important
2 = of little importance
3 = of average importance
4 = of great importance

Dimensions	
Conscientiousness to Duty	____
Perceptual Vigilance	____
Professional Conduct	____
Safety Consciousness	____
Written and Oral Reporting	____
Concern for Others	____
Judgment and Decision Making	____
Physical and Emotional Restraint	____
Relationships with Peers	____
Effectiveness in Emergency/Stressful Situations	____
Willingness to Risk Personal Safety - Courage	____
Ability to Act Independently	____
Investigative Thoroughness	____
Honesty	____
Physical Ability	____
Interpersonal Effectiveness	____
Job Knowledge	____
Overall Rating	____

APPENDIX G

DERIVATION OF FALSIFICATION CORRECTION TABLE

DERIVATION OF FALSIFICATION CORRECTION TABLE

All that is involved in the creation of Table 19 is the calculation of a traditional reliability coefficient, i.e.,

$$\rho_{xy} = r_{xy}/\sqrt{r_{yy}r_{xx}}$$

which expresses the fact that the observed correlation coefficient r_{xy} between two variables underestimates the true correlation coefficient ρ_{xy} if either variable is measured with error (r_{xx} and r_{yy} being the reliabilities of the two variables). In the present case, we shall assume $r_{xx} = 1$.

Consider the following diagram where N subjects have responded to a question with dichotomous categories:

Preliminary Interview Response	Factual Data: Negative	Factual Data: No Negative
Negative Data	a	o
No Negative Data	Z(N-a)	(1-Z)(N-a)

where a = number of respondents admitting negative data

N-a = number of respondents not admitting negative data

Z = proportion of respondents not admitting negative data who actually have negative data

First assume that no subject has reported negative data who in fact has no negative data to report.

Then we may calculate a traditional ϕ coefficient as

$$\phi = \frac{a(1-Z)(N-a)}{\sqrt{a[Z(N-a) + (1-Z)(N-a)][a + Z(N-a)][(1-Z)(N-a)]}}$$

Algebraic simplification reduces this to

$$\phi = \sqrt{\frac{a(1-Z)}{a + Z(N-a)}}$$

Suppose now that we replace a with qN, where q is the proportion of respondents who originally indicated negative data. Then,

$$\phi = \sqrt{\frac{qN(1-Z)}{qN + Z(N-qN)}} = \sqrt{\frac{qN(1-Z)}{N[q + Z(1-q)]}} = \sqrt{\frac{q(1-Z)}{q + Z(1-q)}}$$

Since this equation is independent of N, it suffices to know q, the proportion of respondents who originally indicated negative data and Z, the proportion of respondents who had negative data but lied about it.

ϕ can be taken as a good estimate of r_{yy}. Then the correction to be applied for r_{xy} to get ρ_{xy} is multiplication by $\frac{1}{\sqrt{\phi}}$ or multiplication by

$$\sqrt[4]{\frac{q + Z(1-q)}{q(1-Z)}} = \sqrt[4]{\frac{1 + Z}{q(1-Z)}} \qquad \begin{matrix} q > 0 \\ Z < 1 \end{matrix}$$

APPENDIX H

COPY OF HOUSTON POLICE DEPARTMENT REQUIREMENTS FOR CLASSIFIED POSITIONS

HOUSTON POLICE DEPARTMENT

Requirements for Applicants for Classified Positions in the Houston Police Department

HEIGHT AND WEIGHT: Applicant (male and female) must meet the minimum height requirement of 5'6" with weight being in proportion to height.

AGE: Applicant must have reached his/her 19th birthday prior to making application at the Civil Service Department; and must not have reached his/her 36th birthday before receiving the Oath of Office.

PHYSICAL AGILITY TEST: Applicant must pass all phases of a physical agility test before a background investigation is conducted.

Applicant must have earned all high school credits required to graduate from an accredited high school; or have a Texas Certificate of High School Equivalency from the Texas Education Agency.

Applicant must be a citizen of the United States of America.

Applicant must have a valid Texas Driver's license.

Applicant's driving record must reflect a history of prudence and maturity in operating motor vehicles. Applicant must not have received more than two moving traffic law citations within a twelve month period immediately prior to making application.

Applicant must not have been convicted of a felony offense, driving while intoxicated or of any crime involving moral turpitude.

If a veteran, applicant must not have been convicted in any court martial higher than a Summary.

If a veteran, applicant must have an Honorable Discharge, free from any conditions.

If Honorable Discharge was received for medical reasons, or before tour of duty was fulfilled; or if applicant is receiving disability compensation; or if applicant was rejected from military service for medical reasons, applicant must furnish Civil Service with specific reasons for discharge or disability.

Applicant must not have had any serious illnesses or injuries. The following may be disqualifying, but must be considered:

a. Stomach ulcers
b. Convulsions
c. Diabetes
d. Tuberculosis
e. Migraine headaches
f. Recurrent jaundice
g. Pernicious anemia
h. Syphilis
i. Hayfever
j. Chronic malaria
k. Rheumatic fever
l. Polio
m. Arthritis
n. Heart trouble
o. Asthma

13. Applicant must be free of physical defects and deformities.

14. Applicant's background must reflect family and employment stability.

15. Applicant must be temperamentally and emotionally stable.

16. There must not be any evidence of any emotional disturbances or psychotic or neurotic tendencies.

17. Applicant must not be delinquent in any just financial obligations.

18. The applicant's character and reputation must be of the highest order as established by the background investigation and must not be of such a nature as to cast a question on his future actions.

19. Vision must be correctable to 20/20 with glasses or contact lenses; vision must not be over 20/100 uncorrected in either eye.

20. The only residence requirement that exists is that you must reside within a 500-mile radius of Houston for a sufficient period of time to enable this Department to conduct a valid background investigation.

APPENDIX I

VALIDITY COEFFICIENT CORRECTION FOR UNRELIABILITY OF TEST SCALES

VALIDITY COEFFICIENT CORRECTION FOR UNRELIABILITY OF TEST SCALES

As stated in the discussion of research limitations (Chapter 6), a correction for unreliability of the test scales is appropriate to properly evaluate background item -- job construct relationships. Estimates for CPI scale reliabilities (stability over a one year period) were taken from the CPI manual (Gough, 1975). The reliability coefficients based on 234 men and women was r_{yy}=.71 for responsibility and r_{yy}=.72 for socialization. As a conservative estimate, the emotional adjustment factor reliability was taken as r_{yy}=.70, a bit high considering the factor score loadings and factor coefficients. (Note: Using a higher estimate of reliability will result in a more conservative attenuation correction to validity coefficients.)

All obtained validity coefficients were adjusted by multiplying them by a constant to increase their size:

Corrected Responsibility $r=r_{xy}/\sqrt{.71}$ or $r_{xy}(x)$ 1.18678

Corrected Socialization $r=r_{xy}/\sqrt{.72}$ or $r_{xy}(x)$ 1.17851

Corrected Emotional Adjustment $r=r_{xy}/\sqrt{.70}$ or $r_{xy}(x)$ 1.19523

As an illustration of the uncorrected validity coefficients, uncorrected correlations for civilian criminality are presented in the next table (Table I1). These coefficients can be compared directly with those reported in Table 21 in the text.

TABLE I-1

UNCORRECTED VALIDITY COEFFICIENTS[1] FOR CIVILIAN CRIMINAL RECORD ITEMS WITH JOB BEHAVIOR CONSTRUCTS

ORIGINAL CRIMINAL RECORD ITEMS	Sex Standardized		Sex/Race Standardized		
	Soc[2]	Resp[3]	Soc[2]	Resp[3]	Emot. Adj.[4]
Misdemeanor Items					
1. Number of Juvenile Arrests	.161****	-	.178****	-	-
2. Number of Juvenile Convictions	.109*	.093*	.126**	.103*	-
3. Number of Adult Arrests	.101*	-	.099*	-	-
4. Number of Adult Convictions	-	-	-	-	.088*
Felony Items					
5. Number of Juvenile Arrests	-	.127***	-	.135***	.085*
6. Number of Juvenile Convictions	-	-	-	-	-
7. Number of Adult Arrests	-	-	-	-	-
8. Number of Adult Convictions	-	-	-	-	-
Immediate Family Items					
9. Number of Misdemeanor Arrests	-	-	-	-	-
10. Number of Misdemeanor Convictions	-	-	-	-	-
11. Number of Felony Arrests	.091*	-	.082*	-	-
12. Number of Felony Convictions	-	-	-	-	-
SPECIAL COMBINATIONS					
13. Sum of all Juvenile Arrests	.174****	-	.190****	-	-
14. Sum of all Juvenile Convictions	.107*	.103	.126**	.115*	-
15. Sum of all Adult Arrests	.098*	-	.100	-	.091*
16. Sum of all Adult Convictions	-	-	-	-	.096*
17. Sum of all Felony Arrests	-	.090*	-	.099*	-
18. Sum of all Misdemeanor Arrests	.179****	-	.187****	-	.091*
19. Sum of all Misdemeanor Convictions	.091*	.086*	.099*	-	-
20. Sum of all Arrests	.177****	-	.187****	-	.086*
21. Sum of all Convictions	.087*	.087*	.095*	-	-
MULTIPLE REGRESSION COEFFICIENTS[5]					
22. Items 1 through 8	R = .256****	.196***	.267****	.193****	.102**
23. Items 1 through 8 plus Age	R = .271****	.362****	.285****	.359****	.102**

[1]Pearson Product Moment Correlation Coefficients

[2]Soc = CPI Socialization/Delinquency Scale.

[3]Resp = CPI Responsibility Scale.

[4]Emot. Adj. = Quartimax Factor Score Variable for Emotional Adjustment Factor.

[5]Multiple R is based on correlations corrected for unreliability and required an F of 3.0 to enter stepwise regression equation.

*Statistically significant at .05 level of confidence.

**Statistically significant at .025 level of confidence.

***Statistically significant at .01 level of confidence.

APPENDIX J

DETERMINATION OF RECRUITING, SELECTION AND TRAINING COSTS

DETERMINATION OF RECRUITING,

SELECTION AND TRAINING COSTS

The following is an approximate evaluation of the costs for recruiting, selecting and training cadet classes number 70 through number 76. Recruiting and selection data span the period from April 1975 to November 1976, during which time 456 candidates were accepted. Academy training cost figures are reported for the 444 cadets who actually entered the Academy. Probationary training costs are estimated for the period October 1975 through September 1977 and include costs for those 259 cadets that started or completed probation and the 147 that are scheduled to start probation during this period.

A. RECRUITING AND SELECTION COSTS

Total Personnel Salaries		$1,340,868.00
Deputy Chief (1)	($ 44,832.00)	
Captain (1)	($ 35,904.00)	
Lieutenants (2)	($ 61,952.00)	
Sergeants (3)	($ 80,940.00)	
Detectives (2)	($ 53,960.00)	
Police Officers (40)	($958,400.00)	
Civilian Employees (10)	($104,880.00)	
Advertising Costs		$ 585,070.00
April 1975 to March 1976	($314,577.00)	
April 1976 to November 1976	($270,493.00)	

Office Expenses		$ 126,666.00
Direct Operating Expense	($111,407.00)	
Equipment	($ 15,259.00)	
Personnel Fringe Benefits		$ 294,857.00
Health & Life Insurance	($ 43,058.00)	
Workmans Compensation	($ 10,443.00)	
Pension Contribution (Police)	($222,478.00)	
Pension Contribution (Civilian)	($ 18,878.00)	
Travel Expenses		$ 18,131.00
Personnel Overtime		$ 62,208.00
Total Recruiting and Selection Costs		$2,427,800.00

B. ACADEMY TRAINING COSTS

Total Personnel Salaries		$ 476,498.00
Captain (1)	($ 40,246.00)	
Lieutenants (2)		
Staff Lieutenant from June 1975 to December 1975	($ 10,464.00)	
Pistol Range Lieutenant	($ 5,508.00)	
Sergeants (2)	($ 60,532.00)	
Police Officers		
Staff (12)	($322,944.00)	
Pistol Range (4)	($ 12,804.00)	
Civilian Employees (2)	($ 24,000.00)	
Personnel Fringe Benefits		$ 106,008.00
Workmans Compensation	($ 5,826.00)	
Health and Life Insurance	($14,413.00)	
Pension Contribution (Police)	($81,449.00)	
Pension Contribution (Civilian)	($ 4,320.00)	
Cadet Salaries		$1,698,570.00
Outside Instructors		$ 21,065.00
Total Academy Training Costs		$2,302,141.00*

*Figure excludes operating and capital expenses for the Academy. It is assumed that capital and operating expenses will more than offset any cadet salary decrease due to dropouts from the Academy.

C. PROBATIONARY TRAINING COSTS*

	All Cadets Entering This Stage (406)	Anticipated No. Graduating (388)
Salaries for Probationary Officers	$2,574,465	$2,460,326
Fringe Benefits for Probationary Officers	588,223	562,144
Uniforms and Equipment	60,900	58,200
Total Probationary Costs**	$3,223,588	$3,080,670

D. TOTAL ESTIMATED COSTS PER NEW OFFICER

Recruiting and Selection Totals	$2,427,800
Academy Training Totals	$2,302,141
Probationary Training Totals	$3,080,670
Total Costs	$7,810,611
Average cost per new officer	$ 20,130

*Assumes that only 388 officers will successfully complete this stage.

**Excludes salaries for training officers.

APPENDIX K

CALCULATION OF INCREASED DOLLARS WELL SPENT PER TOPIC AREA

CALCULATION OF TOPIC DOLLAR SAVINGS PER TOPIC AREA[2]

TOPIC AREA	Topic Sample Size(N)	Multiple[1] Correlation (R)	Variance Accounted For (R^2)	(X)	Proportion of Total Sample	=	Proportion of Variance Attributable to Topic	Adjusted[2] Proportion of Variance	Estimated[3] Increase in Dollars Well Spent
Emotional Stability/Personal References	400	.478	.228		1.0		.228	.209	355,300
Fulltime Employment History/References	366	.419	.176		0.915		.161	.148	251,600
General Educational Behaviors	400	.337	.114		1.0		.114	.104	176,800
Financial/Credit History	400	.329	.108		1.0		.108	.099	168,300
Admitted Theft Activities	400	.320	.102		1.0		.102	.093	158,100
Driving History	400	.297	.088		1.0		.088	.081	137,700
Criminal Behaviors	400	.267	.071		1.0		.071	.065	110,500
Marital Stability	193	.323	.104		0.483		.050	.046	78,200
Military Record	142	.345	.119		0.355		.042	.038	64,600
Drinking Habits	337	.210	.044		0.843		.037	0.34	57,800
Drug Usage	400	.164	.027		1.0		.027	.025	42,500
Radical Group Membership	400	.160	.026		1.0		.026	.024	40,800
Admitted Immoral Behaviors	193	.218	.048		0.483		.023	.021	35,700
Doubts About the Job	400	.119	.014		1.0		.014	.013	22,100
							1.091	1.000	$1,700,000

1 The highest multiple correlation was used in the estimate. Only linear sex and race standardized correlations were considered: age interactions and effects of other limitations were excluded.

2 Proportion of variance divided by 1.091.

3 Adjusted proportion of topic variance multiplied by $1,700,000

APPENDIX L

INSTRUCTIONS FOR SELECTING

HOUSTON POLICE DEPARTMENT READABILITY SAMPLE MATERIALS

INSTRUCTIONS FOR SELECTING

HOUSTON POLICE DEPARTMENT READABILITY SAMPLE MATERIALS

Five (5) samples of reading material will be required from each reading source. The procedure for obtaining these samples is as follows:

a. Ascertain the total number of pages of text, *not* including indices, glossaries, appendices or the like.

b. Divide the number obtained in Step a by four (4) and round the answer to the nearest whole number.

c. Sample One (1): To obtain Sample One, turn to the second page of text (this may or may not be Page Two, depending on how the reading material is laid out). Start with the second paragraph and count 200 words or ten (10) sentences, whichever is *longer*. Xerox this material.

d. Sample Two (2): Add the number obtained in Step b to the page number of Sample One. This is the number of the page on which you will take Sample Two. Turn to this page and, starting with the second paragraph, follow the same procedure that was laid out in obtaining Sample One.

e. Sample Three (3): Add the number obtained in Step b to the page number of the page from which Sample Two was taken. This yields the page number of the page from which Sample Three will be taken. Once again, start with the

second paragraph on the page and follow the same procedure that was used in obtaining Samples One and Two.

f. Sample Four (4): Add the number obtained in Step b to the page number of the page from which Sample Three was taken. This yields the page number of the page from which Sample Four will be taken. Start with the second paragraph and follow the established procedure for obtaining the sample.

g. Sample Five (5): Turn to the last page of the text. Subtract two (2) from the page number of the last page. This gives you the number of the page from which Sample Five will be drawn. Follow the established procedure for obtaining the sample.

APPENDIX M

SOURCE MATERIAL FOR

PROMOTIONAL EXAMINATIONS

TABLE M1

LISTING OF PROMOTIONAL SOURCE MATERIALS BY POSITION BY YEAR

Position	Source Material References* by Year of Examination					
	1971	1972	1973	1974	1975	1976
Captain	1,2,3,5,6, 32	2,3,5,11,12, 32	11,12,18,24 31,32	18,19,24,32, 34	18,19,24,32, 34	15,16,32,35
Lieutenant			2,5,12,31, 32,33	2,18,19,28, 32,33	16,25,28,32, 35	4,17,25,35
Sergeant		2,3,5,29,30, 31,32	2,3,5,13,21, 31,32	5,12,22,23, 32	18,19,22,23, 32,35	4,18,19,32, 35
Detective		2,9,10,13, 31,32	2,8,10,14, 31,32	8,10,14,20, 32	8,26,27,32, 34	8,26,27,34
Inspector	1,2,6,7,8, 32	1,2,7,8,12, 32	1,2,7,8,12, 32			
Firearms Examiner		32,39,41,42, 43	10			
Assistant Supervisor I.D.		12,32,40,47, 48				
Superintendent I.D.		32,47,50,52				
Sup. Technician (Radio)			12,32,36,37, 40			
Assistant Chemist-Toxicologist		32,41,44,45, 46				
Fingerprint Classifier II		32,47,48,50				
Latent Fingerprint Examiner		32,47,50,53				
I.D. Office Supervisor		32				
Radio Operator III			32,36,37,40	36,37	36,37	32,36,37,38
Asst. Sup. Technician (Radio)			32,36,37,38			
Radio Operator II					32	
Identification Office Supervisor		12,49,50,51				

*See Table for source material codes and references.

TABLE M2

SOURCE BOOKS AND CODE NUMBERS

FOR DATA PRESENTED IN TABLE M1

1. Community Relations & Riot Prevention. By Raymond M. Momboisse. Springfield, Illinois: Charles C. Thomas, 1967.

2. Municipal Police Administration (6th edition, 1970). International City Managers Association. (7th edition, 1971).

3. Patrol Administration. By Gourley & Bristow. Springfield, Illinois: Charles C. Thomas, 1967.

4. Patrol Administration Management by Objectives (1st edition, 1975). By Donald T. Shanahan. Boston, Massachusetts: Holdbrook Press.

5. Criminology (8th edition). By Sutherland & Cressy. Philadelphia, Pennsylvania: J. O. Lippincott.

6. Police Executive Development. By A. C. German. Springfield, Illinois: Charles C. Thomas.

7. Administrative Action (2nd edition, 1963). By William H. Newman. Englewood Cliffs, New Jersey: Prentice Hall.

8. Crime, Correction & Society (2nd edition, 1968). By Elmer H. Johnson. Homewood, Illinois: Dorsey Press. (3rd edition, 1973, 1974, revised).

9. Field Interrogation (2nd edition, 1967). By Bristow. Springfield, Illinois: Charles C. Thomas.

10. Fundamentals of Criminal Investigation (2nd edition, 1970). By Charles E. O'Hara. Springfield, Illinois: Charles C. Thomas.

11. Human Relations. By Coffey, Eldefonso, Hartinger. Englewood Cliffs, New Jersey: Prentice Hall, 1971.

12. Supervision of Police Personnel. By N. F. Iannone. Englewood Cliffs, New Jersey: Prentice Hall, 1970.

13. Police & Community Relations. By A. F. Brandstatter & Louis Radelet. Riverside, New Jersey: Glencoe Press, 1968. Beverly Hills, 1970.

TABLE M2 (CON'T.)

14. Criminal Interrogation & Confessions (2nd edition, 1967). By F. E. Inbau & J. E. Reid. Baltimore, Maryland: Williams & Wilkins Co.

15. Administration of Criminal Justice; A Management Systems Approach (1st edition, 2nd printing, 1974). By Alan R. Coffey. Prentice Hall.

16. The Police & the Community (3rd or 4th edition, 1973). By Louis A. Radelet. Beverly Hills, California: Glencoe Press.

17. Criminal Justice & the Community (1st edition, 1974). By Robert C. Trojaniwicz & S. T. Dixon. Englewood Cliffs, New Jersey: Prentice Hall.

18. The Police, Crime & Society. By Clarence H. Patrick. Springfield, Illinois: Charles C. Thomas, 1972.

19. Police Supervision, Theory & Practice. By Paul M. Wisenand. Englewood Cliffs, New Jersey: Prentice Hall, 1971.

20. Police - Community Relations. By William J. Bopp. Springfield, Illinois: Charles C. Thomas, 1972.

21. Police Community Relations (2nd edition, 1970). By Earle. Springfield, Illinois: Charles C. Thomas.

22. Police Patrol, Tactics and Techniques. By Thomas F. Adams. Englewood Cliffs, New Jersey: Prentice Hall, 1971.

23. Basic Law Enforcement. By Harry Caldwell. Pacific Palisades: Goodyear Publishing, 1972.

24. Police Administration. By O. W. Wilson and R. C. McLaren. McGraw-Hill, 1972.

25. Police Personnel Administration (1st edition, 1974). By William J. Bopp. Boston, Massachusetts: Holbrook Press.

26. Criminal Investigation (2nd edition, 1974). By Paul Weston & Kenneth Wells. Prentice Hall.

27. Criminal Interrogation (2nd edition, 1972). By Arthur Aubry & R. R. Caputo. Springfield, Illinois: Charles C. Thomas.

28. Supervision in the Administration of Justice (2nd printing, 1970). By Paul B. Weston. Springfield, Illinois: Charles C. Thomas.

TABLE M2 (CON'T.)

29. Police Role in Racial Conflicts. By Towler. Springfield, Illinois: Charles C. Thomas, 1964.

30. Police Sergeants' Manual. By Gocke & Stallings. Legal Book Store, 1967.

31. Texas Law Enforcement Handbook (revised edition, 1970, 1972). By Carol Vance.

32. Rules Manual, Houston Police Department.

33. Police - Community Relations. By Coffey, Eldefonso, Hartinger. Prentice Hall, 1971.

34. Texas Penal Code. Acts 1973, 63rd Legislature, Chapter 399. Effective January 1, 1974. St. Paul, Minnesota: West Publishing Company.

35. Summary of the New Texas Penal Code. By Carol Vance, District Attorney, Harris County, Texas. January 1, 1974.

36. Electronic Fundamentals for Technicians. By Robert L. Shrader. McGraw-Hill, 1972.

37. Radio Operators A & A Manual (revised 7th edition, 1968). By Milton Kaufman. John F. Rider Publications.

38. The Supervisor & His Job (2nd edition, 1972). By A. Q. Sartain & A. W. Baker. New York, New York: McGraw-Hill.

39. The Identification of Firearms and Forensic Ballestics (3rd revised edition). By Major Sir Gerald Burrard. New York: A. S. Barnes & Co.

40. Management-Minded Supervision. By Bradford B. Boyd. New York: McGraw-Hill, 1968.

41. Crime Investigation. By Paul L. Kirk, Ph.D. New York: Interscience Pub. Inc., 1966.

42. Homicide Investigation. By LeMoyne Snyder, M. D. Springfield, Illinois: Charles C. Thomas.

43. An Introduction to Toolmarks, Firearms and the Striagraph. By John E. Davis. Springfield, Illinois: Charles C. Thomas, 1958.

44. Gradwohl's Legal Medicine. Francis Camps (Ed.). Bristol, England: John Wright & Sons, Ltd., 1968.

TABLE M2 (CON'T.)

45. Methods of Forensic Science, Volumes I, II & III. Frank Lundquist & A. S. Curry (Eds.). Interscience Publishers, Volume I - 1962, Volume II - 1963, Volume III - 1964.

46. The Pharmacological Basis of Therapeutics (4th edition). By Louis S. Goodman, M. D. & Alfred Gelman, Ph.D. New York: MacMillan Co.

47. The Science of Fingerprints. U. S. Department of Justice, Federal Bureau of Investigation.

48. Fingerprint Techniques. By Andre Moenssens. Philadelphia, Pennsylvania: Chilton Book Co., 1971.

49. Supervisor's Guide to Human Relations. By Earle S. Hannaford. National Safety Council, U. S. A.: 1967.

50. Practical Fingerprinting. By B. C. Bridges. Revised by Charles O'Hara. New York: Funk and Wagnalls, 1963.

51. Elements of Supervision (2nd edition, 1957). By W. R. Spriegel, E. Shulz, & W. B. Spriegel. New York: John Wiley & Sons, Inc.

52. Human Relations in Business. By F. J. Carvell. London, England: MacMillan Co.: 1970.

53. Fingerprints, Palms and Soles. By Harold Cummins, Ph.D. & Charles Midlo, M. D. New York: Dover Publications, Inc.: 1961.

TABLE M3

SAMPLE OF HOUSTON POLICE DEPARTMENT

PROMOTIONAL MATERIAL

Textbook Codes Selected for Sworn Class A Positions:[1]

1	19
2	23
5	24
7	25
8	28
10	32
12	34

Textbook Codes Selected for Class B and C Positions:

36	44
37	47
43	50

[1]See Table M2 for source material codes and references.

CHAPTER 1

INTRODUCTION

This volume is one in a series of eight which describe an exhaustive research study of the Houston Police Department's job requirements, hiring practices, Academy training effectiveness and promotional procedures. Volume V of this series reviewed each Class A police officer selection requirement as to adverse impact, job relatedness and justification via legal, precedent, business necessity or research findings. (Data covered in this volume, therefore, have been summarized previously in Volume V.)

The purpose of this volume is to present information on the validation of Class A police officer selection standards of a non-physical nature. The validation study of physical job requirements (i.e., height, weight, vision, health, etc.) is reported in Volume VI. Thus, this volume only reports on the validity studies of personal characteristic variables evaluated during the applicant investigation, i.e., the preliminary interview, background investigation, polygraph examination and final interview. Topics under the purview of this research include requirements pertaining to applicant age, education, employment history, driving record, military record, financial history, marital stability, criminal record, subversive activities, drinking habits, drug use, immoral behaviors, illegal behaviors, emotional adjustment and references.

Recent Equal Employment Opportunity Coordinating Council (EEOCC) selection guidelines (Federal Register, Volume 41, No. 136, July 14, 1976) and the Federal Civil Service Commission Guidelines (Federal Register, Volume 41, No. 227, November 23, 1976) include the following points summarized below with respect to validation of selection requirements:

> Any selection procedure causing adverse impact on a protected class is discriminatory unless the procedure is job related and unless the procedure can be validated or otherwise justified for continued use. Procedures not resulting in adverse impact do not require validation.

Based on a thorough adverse impact analysis (see Volume III for details) it was determined that the overall applicant "non-physical" investigation procedure did not have adverse impact against females, but that it did adversely impact Blacks and Hispanics. In particular, four topics relating to the possession of a valid driver's license, the applicant's financial history, separation from spouse and predicted Academy performance resulted in adverse impact. Additional individual personal characteristics considered during the applicant selection process were identified which differentially impacted Whites, males and females. Although only the four above noted items require validation, as specified by the most recent Equal Employment guidelines referenced above, this research project studied all topics evaluated during the applicant investigation process. The reason for such a thorough analysis

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