

THESIS



ABSTRACT

STUDY OF PITTSBURGH POLICE DEPARTMENT PSYCHOLOGICAL SELECTION PROGRAM

By

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Statement of the Problem

The problem of law enforcement personnel selection, by law and by public demand, has become extremely urgent and complex for the police administrator. The complex task of law enforcement has stimulated interest in the use of psychological testing procedures as employment screening devices to predict future police performance.

Purpose of the Study

The purpose of this study was to investigate the validity and reliability of the psychological techniques used by the City of Pittsburgh, Pennsylvania, in pre-employment screening of police recruits from 1965 through 1969.

Hypotheses Tested

The three hypotheses tested were:

Ho₁: That the patrolman selection program in Pittsburgh, Pennsylvania, as constructed and directed by a psychologist between 1965 and 1969 was more predictive of appropriate police behavior than the previous selection program utilized.

Ho₂: That there is a relationship between the psychological instruments used for patrolman selection and police behavior.

Ho₃: That the use of Pittsburgh police personnel records will indicate criteria that can be correlated with predictors for selection purposes.

Description of the Methods, Techniques, and Data Used

The researchers used a quasi-random selection method to investigate and evaluate police behavior of 75 Pittsburgh police officers selected prior to the psychological selection program and the first 75 officers selected under the psychological selection program. Data was collected at the City of Pittsburgh by the researchers from officer personnel records. These records included applicant investigative information and documented information on individual officer

performance and behavior. Psychological test results for the group psychologically selected was obtained from the psychologist in charge of the selection program from 1965 to 1969.

The data was transformed into a format to be analyzed by a computer program. The computer program correlated each variable identified against every other variable in the study and produced means and standard deviations. The program utilizes the Pearson product moment correlation coefficient. The study was designed to report the data in a statistical format.

On the basis of the data collected, analyzed and reported, the authors accepted the hypotheses as written, but rejected hypothesis number 1. Hypothesis number 1 was the major hypothesis.

The Major Findings

The null hypothesis was accepted for hypothesis 1 and becomes:

1. That the patrolman selection program in Pittsburgh, Pennsylvania, as constructed and directed by a psychologist between 1965 and 1969, was no more predictive of appropriate police behavior than the previous selection program utilized.

The findings of the study support hypotheses 2 and 3 as written in Chapter I. They are:

2. That there was a relationship between the psychological instruments used for patrolman selection and police behavior.
3. That the use of Pittsburgh police personnel records did indicate criteria that can be correlated with predictors for selection purposes.

Psychological instruments used did predict police behavior, but no more so than predictors that were available for non-psychologically selected officers. This leads to the obvious conclusion that the behavior variables were not comprehensive enough in scope. The researchers feel that hypothesis number 2 is supported, but doubt the value of spending additional funds on psychological selection for the purpose of predicting only two additional behaviors, amount of loss time on job and educational change after entering into police service.

The data provides strong support for hypothesis number 3 in that it was found that significant correlations existed between the psychological predictors and the application form with police behavior. The researchers concluded that this indicated that the application form was a valid predictor of police behavior as substantiated in this study.

STUDY OF PITTSBURGH POLICE DEPARTMENT
PSYCHOLOGICAL SELECTION PROGRAM

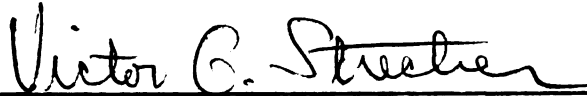
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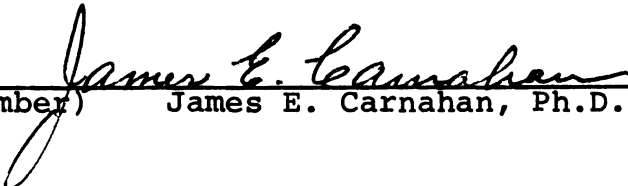
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CHAPTER I
THE PROBLEM

Statement of the Problem

This is an age of unprecedented technological advances, in which machines and computers are assuming an increasing share in the work of society. Nevertheless, it is the human resources of an organization that remain the most crucial input to the attainment of that organization's goals. Law enforcement organizations in the United States are faced with the common problem of selecting qualified human resources to staff agencies which are charged with one of the most sensitive and demanding tasks ever to be undertaken by a relatively large and unknown group of individuals.

The action and behavior of these men, selected to enforce the laws of our cities, states and nation, affect individual behavior, group behavior, legislative bodies and the courts. Reaction to their behavior is often reflected in new or rewritten laws which govern the conduct of this nation's citizens. Life styles and patterns of behavior can be linked directly to the ability or inability of law enforcement officers to cope with the myriad of legal, social and economic problems created by a society which is undergoing continual change. With the importance of these men in

mind, it does not seem trivial to search out the best possible means of selection for entry into law enforcement organizations.

The problem of law enforcement selection, both by law and public demand, has become extremely urgent and complex for the police administrator. Presently, few police departments in the United States utilize thorough recruit selection programs based on the objective of screening for personal behavior that affects, or may affect, job behavior. Where these programs are purported to be in use, there is little, if any, evidence presented on their reliability or validity as predictors of police performance or behavior.

A statement from a 1966 study should help state the position of these authors more clearly:

"The emerging profession of law enforcement, as it is perceived in municipal police departments, has started to place greater emphasis upon careful selection of recruit material. Although the problem of attracting qualified candidates for law enforcement careers in sufficient numbers persists, the emphasis upon care in the initial selection reflects recognition of the critical and complex demands placed upon the modern metropolitan police officer. The complexity of the job of competent law enforcement in our cities, has in turn, stimulated interest in the psychological procedures used to predict police performance."¹

Until rather recently, in view of the importance of the law enforcement function in our society, coupled with the

¹Robert B. Mills, Robert J. McDevitt and Sandra Tonkin, "Situational Tests in Metropolitan Police Recruit Selection," Journal of Criminal Law, Criminology and Police Science, Northwestern University School of Law, 1966, p. 99.

authority and responsibility vested in the individual police officer, the interest of behavioral scientists in the matter of police selection has been rather dim. Richard H. Blum, speaking on police selection, makes the following statement reflecting on this lack of interest:

"If we restrict the scope of our survey of research to studies which have been made by trained social scientists using acceptable and scientific methods for observation and treatment of data, we find that there has been very little such work directed to the evaluation of the usefulness of psychological tests for the selection of policemen."²

The apparent lack of scientifically acceptable studies, i.e., studies in which psychological tests or test batteries have been validated for the population on which they will be used, has not deterred police organizations from using tests which may be called psychological in nature. A 1963 study by Narrol and Levitt, cited in Psychological Assessment of Patrolman Qualifications In Relation to Field Performance, using a mail survey focusing on patrolman selection methods of 61 U.S. cities with a population of greater than 150,000, found that all 61 cities used a test or tests which could be called "psychological."³ In spite of this extensive utilization of testing methods, the authors of that study concluded that, "... there is little or no research being done upon police selection techniques ..." and that "not many

²Richard H. Blum, Police Selection. Springfield, Illinois: Charles C. Thomas Company, 1964, pp. 101-102.

³Melany E. Baehr, Psychological Assessment of Patrolman Qualifications In Relation to Field Performance. U.S. Government Printing Office, Washington, D.C., 1968, p. 2.

psychologists are involved in research upon, or in the use of, the selection procedures now employed."

The use of psychological testing without proper validation and reliability research is not only scientifically weak as a procedure, but may be dangerously misleading to both the test user and the test respondent. Qualified psychologists have long maintained that validation research is essential for insuring the proper application of testing to employment selection. However, now added to the voice of psychologists speaking out for proper test validation are the voices of civic groups, the courts and legislatures in some instances, demanding that psychological testing for employment selection be proven as fair, relevant and equal in application. In essence, the validation of testing for employment is rapidly becoming a prerequisite for continued use of psychological evaluations as a part of the police selection process. Police selection test validation can no longer remain a research luxury; it is in many cases becoming a legal necessity.

Currently many methods of police selection are being reviewed in an effort to upgrade the quality of police recruits. In many instances, a constructive assessment, research and change in currently used selection procedures has proved valuable in placing better police officers on the streets. One selection technique now under close scrutiny by the public, the courts and the police themselves is the use of psychological evaluation of police applicants. The term

psychological evaluation is often confused and misinterpreted by the layman. A detailed explanation of those standardized psychological instruments/evaluations, investigated for their value as predictors of police behavior in this study, will be found in Chapter II. However, at this point the authors merely wish to call attention to the fact that psychological testing is being used in police selection and that there is a wide range of standardized psychological instruments available to a qualified psychologist for predicting human behavior. These instruments can be grouped into several major categories, as used in police selection programs. Included in those categories are: intelligence tests; personality tests and inventories; aptitude tests; interest and value tests; projective tests; interviews; rating scales and polygraph examinations. This list is by no means complete, but is representative of the major categories of psychological testing currently used in police selection programs.

To clarify the term psychological instrument/evaluation, the authors feel a distinction should be drawn between "informal test" and "standardized psychological evaluation/instrument." A standardized psychological test or evaluation must meet criterion, including: scientific selection of the component parts; a method of administration and scoring that does not vary; normative information which indicates what effect age, sex, occupation, etc., have on scores; and data which concerns the reliability and validity of the test. In contrast, the informal test often does not meet all these

criteria and most importantly often lacks information on reliability and validity.

The most common psychological method used by police administrators for personnel selection is the employment of a psychologist, who gives one or more standardized tests, the results of which are used by the administrator in making a decision as to whether or not an applicant will be hired. The use of any one particular standardized psychological test or combination of tests, known as a psychological battery, has inherent drawbacks when used for police selection. One mentioned earlier is the lack of proper validity and reliability studies on the population for which the test is to be used.

Often, standardized tests, as applied to police selection, have had their reliability and validity factors established on groups that are quite dissimilar from police officers, for example: mental patients, school children, assembly line workers, etc. Additionally, a problem is encountered in determining what skills and characteristics differentiate between good, average and poor police officers.

A further drawback is encountered in finding qualified and interested behavioral scientists to administer and evaluate psychological tests for police personnel screening. With the prerequisite use of qualified skilled psychological clinicians in the administration and evaluation of psychological testing comes the problem of justifying their cost in often already strained police budgets. Many police administrators

cling to the tradition of cutting costs in selection, even though the high cost initially may be offset later in reduced turnover rates and personnel problems.

These drawbacks are being slowly alleviated, in part as a result of studies such as this which are directed at providing information on the value of psychological evaluations in police selection. Although many psychological evaluations now used in police selection are vulnerable to criticism as information concerning their reliability and validity is obtained, their use in selecting the best qualified applicants may provide a valuable contribution toward improved police service. It is possible that the complex problem of staffing the nation's law enforcement agencies with qualified personnel can, in many instances, be enhanced with the use of valid and reliable psychological testing methods.

Pittsburgh Psychological Selection Program

In 1964 a notable concept in police selection began to take shape in Pittsburgh, Pennsylvania. In that year, the city of Pittsburgh Civil Service Commission, the Pittsburgh Police Department and a psychologist by the name of Dr. Russell H. Scott undertook an original approach to the complex problem of police selection. The use of a psychologist to aid in police selection was not a new concept.

The startling feature found in the Pittsburgh approach was the use of a psychologist to select police officers with the aid of competent police personnel as consultants. The psychologist's role in the Pittsburgh program is in direct

contrast to the traditional role he usually plays in merely advising a police administrator on an applicant's desirability, his advice being only one segment of a total process with the final decision to hire being left up to the police personnel administrator.

The psychologist in Pittsburgh was required to produce a single product for the Executive Secretary of the Civil Service Commission, i.e., a qualified and professional recommendation to appoint or not appoint a candidate to the Pittsburgh Police Academy. Since the city of Pittsburgh, Department of Police, received all of its recruits from the city civil service list presented by the Executive Secretary of that Commission, the psychologist's recommendation to the Executive Secretary became the all-important decision point at which an applicant was hired or rejected for police service. The police department did not have the option to dispute the decision of the Executive Secretary of the Pittsburgh Civil Service Commission.

Some of the traditional aspects of the police selection process were retained. Other selection techniques were modified as a result of a combined effort on the part of the psychologist and police officials. Minimum standards for entry into police service were left untouched by the psychologist, while the background investigation and interviews with the perspective employee's associates were kept in a modified form. A battery of standardized psychological instruments, use of projective techniques and a psychological stress interview were added by the psychologist. Good

cooperation between the psychologists and involved police personnel resulted in background investigations that provided psychologists with the information they felt essential, while at the same time satisfied police investigators in their search for relevant information. A rating scale on the applicant's desirability as a police officer was also used by background investigators as part of the new approach to police selection.

Much of the non-traditional psychological police selection program instituted in the city of Pittsburgh began in 1964 following in the wake of that city's first major civil disturbance of the sixties. Following the violent disorder, many cries for improved police selection were heard and the time was considered ripe for innovative and constructive changes in the police selection program. The psychologist hired by the Pittsburgh Civil Service Commission began program planning and development during 1964 and 1965 in a movement toward a new police selection program.

The first group of psychologically selected police recruits were screened by Dr. Scott in late 1965 and were appointed to the Pittsburgh Police Academy in January, 1966. The psychological selection program originally constructed underwent several early revisions in techniques and quickly grew to the point where four part-time psychologists were needed to administer the program.

A statement by Dr. Scott should serve as a reference to the frame of thought surrounding the program:

"Selection of police officers has become one of the most important tasks facing society today. The police officer's job is one of the most sensitive and demanding ever undertaken by a relative large group of men. The actions of these men often determine not only the future of individuals, but effect entire urban communities, in some notable instances, the entire nation."

Importance of the Study

One phase of the Pittsburgh program was an investigation of the then current Pittsburgh police personnel records as criteria for identifying good police officers. Using information from this study and the results from supervisor ratings of personnel, Scott developed a program which he thought would provide better police recruits.

The result of that study and the gathering of normative data which distinguished good, average and poor officers is not investigated by this study and the results of that portion of the Pittsburgh program were accepted at face value by the authors. In addition, during that phase of the Pittsburgh program, the relationship between the predictor variables of the tests he used and the various criteria available in the aforementioned personnel records were investigated.

The importance of this study, then, becomes, in part, an answer to a problem raised in part one of this chapter, the question of validity. Many people in the city of Pittsburgh felt that the new police selection program had been successful to some degree. These people included the psychologist in charge and various police officials.

The authors had occasion to quickly investigate the program in 1970 and were encouraged by its face results. However, until this study was undertaken, no statistical, in-depth measurement of reliability or validity was available on the Pittsburgh program. As mentioned earlier in this study, it is rapidly becoming essential that testing procedures, as applied to police personnel selection, be validated on that population for which continued use is expected. Further, the importance of this study is enhanced by the fact that very few psychologists have been allowed the latitude in employment selection that was at the base of the Pittsburgh program. This non-traditional approach to police selection should be investigated for its value, to add to the growing body of knowledge being assembled on personnel selection in law enforcement organizations. In the early part of September, 1972, the authors took a proposed study to Dr. Scott for his input and decision as to whether or not it would measure the validity and reliability of the program he designed and directed in Pittsburgh.

Purpose of the Study

The purpose of this current study is to determine if the psychological methods employed for use in patrolman selection in the city of Pittsburgh, Pennsylvania, between 1965 and 1966 were valid and reliable predictors of police behavior.

The authors feel that the period of time that has elapsed between the selection of patrolmen using psychological methods and the time at which research data for this study were collected has provided an opportunity for police behavior to be observed and recorded. The study will compare police behavior recorded on two groups of police officers: a group psychologically selected under the new program, and a group of police officers selected just prior to implementation of the psychological selection program. The results of the comparison of two groups of police officers, selected under two different selection programs, should help provide reliability and validity information on the psychological selection instruments used.

The study further investigates the relationship between the predictor variables available on the men psychologically screened, and their police behavior as recorded in personnel records of the Pittsburgh Police Department that were available to the authors.

Quite briefly, it should be noted that the validation effort undertaken by this study is directed toward police behavior as opposed to the more restrictive term "police performance." For the purpose of this study, the authors have defined "police behavior" as all of the available observed and officially recorded responses of a police officer to a given situation. Performance, on the other hand, is often restricted to quantitative measures of the officer's

work, such as number of arrests, tickets issued, incidents handled, etc. The authors of this study were interested in documented records of total police behavior, both positive and negative, as opposed to performance records which are usually neutral or positive in nature.

Description of the Pittsburgh Police Selection Program

To fully understand the purpose of this study, the authors feel that a complete description of the Pittsburgh Psychological Police Selection Program, used from 1965 through 1969 in Pittsburgh, Pennsylvania, for selection of police patrolmen, must be adequately presented.

The program implemented is unique, complex and original in design. The results of the program must be seen in light of its total impact on patrolman selection, rather than restricted to evaluation of any one instrument or technique used. The study should help, however, to differentiate which parts of the selection program were more reliable and valid than others.

Two rather crucial items must be understood initially when evaluating the Pittsburgh program. The failure of either of these items would have, in all likelihood, spelled immediate failure for the project. First, one must understand the organizational framework within which the psychologist operated and, secondly, one must remember that the original program was constructed with built-in flexibility that

provided for an analysis of technical procedures. This flexibility allowed necessary changes based upon the psychologist's professional judgment, resulting in a refined selection procedure that remained constant from early 1966 to 1969. This built-in flexibility allowed testing materials, background investigation procedures and structuring of the psychological interview to be fitted to the individual demands of a new selection program.

The organizational framework within which the psychologist worked was carefully planned. The team of part-time psychologists were hired by the Pittsburgh Civil Service Commission and were directly responsible to the Executive Secretary of that body. This is in direct contrast to employment by, or responsibility to, the police department. A written, legal contract was signed by the psychologists and the Civil Service Commission which specified the responsibilities of both parties. The nature and existence of that contract allowed the psychologists to remain relatively free from direct political intrusion when making their decision to appoint or not appoint a particular applicant.

The psychological test scores and recorded psychological interviews remained in the sole possession of the psychologists and no information, other than a decision to appoint or not appoint, was required of the psychologists.

The value of the psychologist's professional recommendation, and the faith placed in him by the Executive

Secretary of the Civil Service Commission, may be seen in the light of the following statistic: out of 1,164 recommendations made in the period covering 1965-1969 by the psychologists, only one recommendation was reversed by the Executive Secretary. The final decision to appoint an applicant remained that of the Executive Secretary of Civil Service.

The psychological examination was carried out under the umbrella of the medical examination for police service. The nature of the psychological testing program was carefully explained to the candidates prior to their involvement in it, and all were assured that their test results would remain confidential, the results being known only to the screening psychologists. Applicants who were rejected because of abnormal profiles on the psychological screening were classified as not meeting medical standards. This is quite briefly the organizational framework of the Pittsburgh program.

The second item which must be understood when evaluating the Pittsburgh program is the actual screening process itself. Suffice it to note that the original program underwent early revisions in 1965 and the following description of techniques and procedure is the refined program which this study investigated.

The first step in acquiring appointment to the Pittsburgh Police Department was a filling out of the request for notification card. The applicant was advised of the minimum standards for entry into police service and a notice was

mailed to him informing him of the next date for police civil service examinations. Hiring of police officers is a function of the Pittsburgh Civil Service Commission.

The first contact the applicant had with the selection process was during the civil service examination. Those applicants meeting the minimum standards outlined for police service, residency, age, education, etc., were allowed to take the civil service examination. This examination was designed by the civil service secretary and was administered whenever a specified number of vacancies existed in the police department. It was an "informal test" and Dr. Scott dubbed it an omnibus IQ test, saying it was hard to state just what the test did measure, except general knowledge. The test is not standardized and is newly devised for each group being processed.

To pass the test, an applicant must obtain a score of 70 or more. The manner in which that score is arrived at is not specified by law. The psychologists felt that this was the weakest link in the selection process. It was known that the civil service test screened out approximately 50% of all those taking it. Those passing the examination were rank-ordered by score, highest to lowest, and placed on an eligibility list. Potential recruits were then taken from the top of the list as needed.

It should be noted that the civil service examination was made up for police recruits only and was not given to

those persons seeking employment with the city in other fields of work. Up to this point, the selection procedure was the same as was used prior to the psychological selection program. Applicants placed on the police eligibility list then became the potential police recruitment pool. It is in the next step of the selection program that the applicants had their first contact with the psychologists.

The selection process at this point was phased into a three-pronged approach. First, the medical examination; secondly, the beginning of a detailed background investigation; and thirdly, the psychological evaluation. The medical examination and a separate background investigation to check for conformity to minimum standards were pass or fail points in the process and further screened the applicants prior to the psychological processing.

Perhaps at this point it would be well to make the distinction between the background investigation conducted to check for conformity to minimum standards and that background investigation used to build the profile on the potential recruit. The check for conformity to minimum standards consisted of a separate check of available records to confirm the application information presented by the candidate on his residency, age, criminal record, driving record, etc. This background investigation, conducted prior to the psychological evaluation, screened out some individuals. The comprehensive background investigation that resulted from a

combined effort on the part of the psychologist and the police was quite detailed in nature, and probed the applicant's background much like a social history.

After passing the preliminary screening points which included basic minimum standards, civil service examination and medical examination, the applicant entered the psychological evaluation stage. The basic battery of standardized psychological tests given was designed to screen those persons with undesirable personality traits, poor aptitude and below normal intelligence. Borderline cases were singled out from the results on the initial testing battery and closely observed as they were given more extensive psychological testing. No applicant was rejected on the basis of one test score alone.

When the applicant entered the psychological evaluation phase of the selection process, a detailed background investigation was initiated. The psychologists and police investigators placed a great amount of emphasis on this phase of the selection process. The background investigations were conducted by sworn police officers from the Internal Affairs Division of the Pittsburgh Police Department. The officers chosen for this duty were picked on their reputation for making complete and thorough investigations. A running progress report was kept on each applicant to make readily available information concerning the applicant in this phase.

The method for conducting the background investigation, being a hybrid product of police officers and the psychologist,

encompassed traditional police approaches and modern psychological interview techniques. The background investigation was designed to provide that information deemed crucial to police officers and still provide information that Scott felt would aid in building a psychological profile on the applicant. The information gained in the background investigation was added to the results of the psychological test to aid the psychologist in deciding the structure of the psychological interview.

The background investigation included an adjective checklist to be completed by the applicant himself, the applicant's wife and references selected by the psychologist. Any discrepancies between checklists suggested areas to be further probed by either the psychologist or background investigator. Traditional checks with employers, schools or known associates were also made by the background investigators. Interviews were conducted by the investigator with the family and stated references, using materials that were jointly developed by the police and psychologists.

These interviews were designed to elicit that information the psychologists felt would be of value in building a profile on the applicant. Rating scales were used by the background investigator to rate the desirability of the applicant as a police officer. Instruction on how to use the interview sheets and the rating scales was provided to insure uniformity among the investigators. The background investigator and screening psychologist worked closely in evaluating each

applicant, each providing the other with items of interest which might suggest further investigation or probing on the part of the other.

The psychological evaluation phase of the Pittsburgh program can be divided into three areas. First, a battery of standardized paper-and-pencil tests is administered to the applicant. Next, each applicant, at a later date, is given some type of projective test just prior to the psychological interview. The last phase of the psychological evaluation is the interview. Should the applicant be singled out as a borderline case, as a result of his "psychological profile", his case is reviewed by two or more psychologists before a recommendation to accept or reject him is made. It is emphasized that no applicant was dropped on the basis of one test score or one psychological interview.

With the increased attention being focused on the use of psychological testing for police employment selection, and in keeping with the importance and purpose of this study, the authors now turn to a description of the testing used in Pittsburgh. A more detailed clinical description of those standardized tests used in the program will be found in Chapters II and III of this study.

All tests used in the initial battery were standardized psychological instruments, with occupational norms for the Minnesota Multiphasic Personality Inventory being established on a group of police officers appointed to the Pittsburgh Police Department just prior to implementation of the new

program. This MMPI normative data by occupation provided a frequency distribution of scores of achievement on the test, made by police officers who were hired regardless of their score and was used as a standard of reference in interpreting scores made by the candidates for employment in police service.

Minimum cut-off points for intelligence as measures using the Otis Quick Scoring Mental Ability Test and the Wechsler Adult Intelligence Scale (WAIS) were set by Dr. Scott based on his professional experience and judgment. Also given in the first battery of tests was the Guilford Zimmerman Aptitude Survey (Part IV Perceptual Speed, Form A). These tests made up the initial battery from which the applicant's profile began to take form.

The two most important tests to be examined in this study for their value as predictors of police behavior are the Otis and the MMPI. The Otis is used as an intelligence screening instrument. It is highly verbal, easily administered and takes a minimum amount of time -- 30 minutes.

The psychologists in Pittsburgh were aware that the Otis has built-in bias against persons from lower socioeconomic backgrounds, particularly black applicants. The cultural bias of the test was believed to lie in the fact that the test is verbal and math-oriented in content. Despite bias, it was used as a preliminary screening and evaluating device and had a minimum cut-off score of 90. The psychologists felt that if there was one thing the Otis

does not do, it is the generally accepted feeling that the Otis will not overestimate intelligence. Should the applicant not make a minimum score of 90 on the Otis, he was scheduled to take a WAIS.

The Wechsler Adult Intelligence Scale (WAIS), while far from being an instrument which precisely measures intelligence, is professionally considered to be a more sophisticated instrument than the Otis, leaving out some of the built-in cultural bias found in using the Otis with some members of the lower socio-economic classes. The sub-tests on the WAIS probe such areas as memory and abstract thinking ability which are believed to be far less susceptible to cultural biases. If the applicant failed to obtain a minimum score of 90 on the individual WAIS, he was dropped after a psychological interview was conducted to confirm low intelligence.

The next test of importance to the Pittsburgh program was the MMPI. All applicants were administered a projective technique to substantiate the findings of the MMPI. Occupational norms for MMPI use in police selection were obtained on a group of police officers already working for the Pittsburgh Police Department. For a more complete description of the MMPI and its scales, see Chapters II and III.

The first scales of interest were: the question mark scale, the L scale, the F scale and the K scale. From the data, it was found that most police officers had a low score on the question mark scale, most omitting no items.

However, Dr. Scott set as a realistic norm a mean scale score of 6.8 and a standard deviation of 14. The standard score on the L scale, or lie factor, was found to be 48 on the normative group and any gross deviation from that score by the applicant was further explored.

The F scale measuring the validity of the individual test response was found to have a mean score of 50 with the normative group, and any applicants scoring between 60 and 70 were classified as questionable, while those scoring 70 or above on this scale were classified as potential problems.

The K scale, which measures a defensive or guarded attitude of the test respondent toward the test, was assigned a mean of 50 and those applicants scoring over 70 or under 40 were looked upon as questionable or potential problems depending upon their degree of deviation from the mean. He was quick to point out that the program did not classify behavior or personality on the results of the MMPI alone.

Dr. Scott reported that the most frequent profile seen during testing of police applicants was a 4-9, meaning an elevated score on the scales 4 and 9. Any scale score above 70 in this group of ten clinical scales resulted in a potential problem classification for the applicant. Three or more scale scores of 60 or above resulted in a "questionable profile". These limits or classifications were set on the basis of occupational norm data, professional judgment and clinical skill. A brief description of each of the ten clinical scales will be

found in Chapter III of this study.

The MMPI answer sheets were computer scored and the use of computer print-outs made up the profile and working clinical notes for the psychologist assigned the interview portion of the selection process. The "K corrected" score was obtained for each applicant taking the MMPI and was recorded. This "K correction" score related back to one of the validity scales mentioned earlier and operates both as a correction score for a number of the clinical scales and as an indicator of certain personality characteristics.

The use of computer scored MMPI inventories, with the results evaluated by a qualified psychologist, is professionally accepted and has been found in several studies to be a valid procedure. After the applicants have had their MMPI scores interpreted, their Otis or Wechsler results reviewed, and their background investigation completed, they are passed on to the next stage of the psychological evaluation.

The final step in the psychological evaluation is perhaps the most important. It is the psychological interview. The psychological interview served two purposes: a validation of that information already developed as a result of the application information, the background investigation and the initial battery of paper-and-pencil tests administered by the psychologists; and as a source of independent data which was weighed subjectively by the interviewing psychologist based on his professional experience.

Prior to his psychological interview, each applicant was given the Incomplete Sentence Test. The applicant is also given, prior to the interview, another projective technique of the interviewing psychologist's choice. The most commonly used projective techniques used by the five psychologists were: Bender-Gestalt, Rorschach and House-Tree-Person. A brief description of each of these tests will be found in Chapter II of this study.

The use of projective techniques, the Incomplete Sentence Test and the interviewing psychologist's choice of one of the other well known projective techniques hopefully validated the information on the pencil-and-paper tests. Of equal importance was the projective technique's source of independent data. The psychologist reported findings on the projective technique that were not clearly visible from the pencil-and-paper tests.

The use of projective techniques as an evaluation instrument is restricted to highly trained and qualified clinicians. Using them as an independent source of data for the psychological interview requires that their interpretations be well founded and professional. Each of the interviewing psychologists used the projective technique that he preferred. The most commonly used was the Rorschach.

The findings on the projective techniques were added to the growing body of information on the applicant. The projective techniques were considered a part of the psychological interview as they were individually administered by

the interviewing psychologist to the applicant just prior to the interview with him. Questionable areas exposed by the projective technique were further probed in the interview session.

The psychological interview was termed as a type of "stress interview" situation. The interviewing psychologist armed with a volume of information, gained from many sources, was in a good position to probe the applicant's weaker areas and further investigate or substantiate questionable findings. One function of the interview was to observe how the applicant reacted to emotional stress which arose from probing and digging on the weaker areas of the personality structure. The purpose of this feature was to observe what defense mechanisms the applicant used and how well he used them. All interviews were conducted on a one-to-one basis with the entire interview being recorded with the applicant's knowledge.

Interviews were reported to have lasted a minimum of one hour with most running longer. Most of the applicants went through more than one interview and no applicant was rejected on the basis of one interview.

No applicant was dropped from the selection procedure without the psychological interview. The projective techniques, as part of the interview, were used for their diagnostic qualities in a clinical sense as opposed to using scores from them in a psychometric sense. When it comes to the

question of whether the man was rejected because of a test score or the psychological interview, Dr. Scott stated most affirmatively it was the interview.

There were some basic professional guidelines used during the psychological interview that resulted in an applicant being dropped. If the applicant appeared overly prejudiced, he was dropped as a poor risk. Dr. Scott reported that approximately two applicants were dropped due to expression of this attitude during the interview.

Other rejections came about if evidence of "non-functioning" appeared on the part of the individual during the interview. In other words, the applicant simply couldn't cope with the stress or emotions triggered during the psychological interview.

Still others were rejected due to the fact that they were found to be absolutely lying during the interview. This occurred when the psychologist received an invalid answer to some question asked the applicant, and the answer was clearly substantiated to the contrary by the background investigation or other evidence.

The last category of individuals rejected on the basis of the interview alone were those individuals displaying symptoms of psychotic behavior. It must be remembered that the interviews were conducted after rather extensive personality testing and were directed by skilled psychological clinicians trained in diagnostic procedures.

The psychological interview results have no quantitative score placed on them. They can be compared to the procedure that a medical doctor follows when diagnosing an illness. He has, perhaps, many symptoms and some factual evidence but does not draw a quantitative conclusion, rather makes a qualified decision based on his training, skill and experience as a professional. The psychological interview conducted in Pittsburgh closely parallels this comparison and those applicants who passed the final stage of the psychological evaluation were given the psychological prognosis of becoming suitable police officers.

The selection program in Pittsburgh was rather extensive. Approximately one-third of those who applied for police entry were appointed to the Pittsburgh Police Academy by the Executive Secretary based upon the recommendation of the screening psychologists. The program was directed by a trained and skilled psychometrician, who took the time to talk with police officers, observe them in their working environment and selected for use those instruments and techniques that he felt would select police officers that could be expected to perform at a better than average level.

By closely examining personality structures, the Pittsburgh program should be expected to sort out men more suited for police service than those selected by previous methods. All of the part-time psychologists were qualified professionals and included a black psychologist who helped screen black applicants, thus alleviating one possible

built-in bias. The Pittsburgh Police Department was cooperative with the psychologists adding to the input of the new program. Perhaps most important was the framework within which the psychologist operated, leaving him relatively free of political and social pressures, yet giving him more responsibility in the final decision-making process than traditionally accorded him in his role as a consultant for employment selection. It was felt that the applicant's knowledge of test security and confidentiality of the evaluation process alleviated the "invasion of privacy" argument.

The results of the Pittsburgh program covering that period of time from late 1965 through 1969 were, at face value, encouraging to those who were connected with it. There were 1164 applicants screened in that period of time under the direction of Dr. Scott, with 471 being appointed to the Pittsburgh Police Academy. Out of observation of the group appointed came the feeling that those men who were psychologically selected performed better once placed on the job, had lower attrition rates, had fewer citizen complaints, had fewer trial boards, less departmental discipline and higher levels of achievement in the police academy than those selected by previous methods. Unfortunately, there was no documentation for this feeling.

The commanding officer of the Pittsburgh Police Academy, interviewed by one of the authors in November, 1970, stated that he felt he was receiving more intelligent recruits, capable of learning more material in the same allotment of time

as compared to recruits he had been given under the previous selection program.

The authors and Dr. Scott believe that psychological instruments used in this selection program have predictive validity for patrolman selection and police behavior.

Hypotheses of the Study

This study will focus upon the selection program utilized by the city of Pittsburgh. The following hypotheses will be tested in this study:

1. That the patrolman selection program in Pittsburgh, Pennsylvania, as constructed and directed by a psychologist between 1965 and 1969, was more predictive of appropriate police behavior than the previous selection program utilized.
2. That there is a relationship between the psychological instruments used for patrolman selection and police behavior.
3. That the use of Pittsburgh police personnel records will indicate criteria that can be correlated with predictors for selection purposes.

Definition of Terms

Because the authors of this study have made repeated references to certain terms, we feel that our understanding and definition of them should be clearly delineated. An understanding of these terms should clarify and make specific their intended use in this study.

In those instances where a standard definition of the term was not found, the authors formulated their own definition. These definitions were designed for this study only:

1. Informal Tests. Those instruments which are designed and constructed without regard for scientific selection of component parts, usually administered and scored in a non-uniform manner.

These tests are further characterized by a lack of normative data and usually have no information concerning their reliability or validity in predicting future performance. An example mentioned in this study would be the Pittsburgh Civil Service test. Sometimes contrasted with "standardized psychological tests or instruments."

2. Normative Data/Information. A frequency distribution of scores of achievement in a test, or group of tests, made by persons in a particular occupation and used as a standard of reference in interpreting scores made by candidates for employment in that occupation. It denotes the pattern, standard or representative value for a group or type usually supplied to indicate the dependence of the test score upon age, sex, school grade, occupation, etc.

3. Pittsburgh Civil Service Test for Patrolmen. That informal test designed by the Executive Secretary of the Pittsburgh Civil Service Commission to be used as a preliminary screening device. The authors of this study were not allowed to see either the test or scores of the applicants investigated by this study.

This has been professionally referred to as an omnibus IQ test of general knowledge.

4. Pittsburgh Psychological Selection Program. That program developed and directed by Dr. Russell H. Scott for patrolman selection in the city of Pittsburgh, Pennsylvania, between 1965 and 1969. The program was based on the

use of standardized psychological evaluations and professional clinical judgments. The program encompassed some traditional Pittsburgh selection methods and modern psychological techniques.

The program was implemented by the Pittsburgh Civil Service Commission, which in turn was responsible for the employment of Dr. Russell H. Scott.

5. Pittsburgh's Traditional Selection Program.

That method or program employed by Pittsburgh Civil Service Commission and the Pittsburgh Police Department for the selection of patrolmen, immediately prior to implementation of the psychological selection program. The traditional program, as near as could be determined, consisted basically of an application, civil service test and background investigation.

6. Police Behavior. As used in this study, a term which denoted all of the officially observed and recorded responses of a Pittsburgh police officer to a given situation. Sources of police behavior in this study were the official personnel records of the Pittsburgh

Police Department for those subjects investigated by this study.

Examples would be departmental commendation, discipline, merit citation, etc. Also included in this definition was officer involvement in particular situations -- examples being injury, accidents, further education, etc.

7. Police Performance. Those functions of the sworn working officer which traditionally relate to a quantitative measure of work or service rendered, such as tickets issued, arrests made, incidents handled, etc.

This study did not have such variables to work with as records on these variables were either non-existent or beyond the limitations of the authors to assemble.

8. Predictor/Predictor Variable. A piece or segment of information from which a description of a result or outcome is formulated or stated in advance of that outcome, the advance statement being based upon knowledge of certain general principles of nature. In this study, the term refers to a piece of

information or evidence elicited in some manner from which an outcome the probability of becoming a good police officer is prognosed.

9. Projective Technique. The chief distinguishing factor of projective techniques is to be found in their assignment of a relatively unstructured task that permits the test respondent an almost unlimited variety of possible responses. Only brief general instructions are given in order to allow free play to the individual's fantasy.

This method is used to induce the respondent to reveal (project) his motives and personality without knowing he is doing it. The expected result is usually a verbal, written or drawn portrayal of the way the respondent sees his social environment, thus giving the psychologist clues to the needs, interpretations and adjustments of the respondent.

The techniques are structured in an extremely general nature to give the respondent as wide an area as possible for response. Test stimuli are usually vague and ambiguous. The underlying theory is that the manner in which the respondent perceives and interprets the test material, or "structures" the situation,

will reflect fundamental aspects of his psychological functioning or personality structure. In this manner of testing, it is hoped that the test materials will serve as a screen on which the respondent "projects" his characteristic thought processes, needs, anxieties and conflicts.

10. Psychologist/Psychological Clinician/Psychometrician. In this study, refers to those persons who are educated, skilled and trained in the use of psychological test materials and evaluation instruments.

The American Psychological Association lists over twenty psychological disciplines, one of which is the discipline of test construction and use.

As used in this study, the above terms refer to those individuals who have specialized in the construction, administration and scoring of psychological tests.

11. Reliability. In this study as applied to test reliability, this term refers to the degree of accuracy of a given test and its ability to consistently measure what is purported to be tested. Test reliability is

the consistency of scores obtained by the same persons when retested with the identical test or with an equivalent form of the test.

12. Standardized Psychological Test/Instrument.

Those tests which provide an objective and standardized measure of a sample of behavior. They typically probe a wide range of human characteristics, including but not limited to: intelligence, personality, attitude, aptitude and achievement.

All standardized psychological tests are characterized by meeting formal criterion; the component items have been selected and checked empirically, there is a method of administration and scoring prescribed with exactitude, there are norms of performance supplied to indicate what dependence of the score rests on age, sex, occupation, educational achievement, etc., and the well standardized test is usually accompanied by data concerning its reliability and its validity. Sometimes contrasted with "informal tests."

13. Test Battery. Usually refers to a group of standardized or informal tests or combination

thereof, given to the test respondent in an effort to gain as much information or fact about the individual as possible by testing.

Test batteries usually consist of individual instruments designed, constructed and selected for their value in predicting some future behavior. For example: job selection, diagnosis of mental illness or educational achievement.

14. Validity. Undoubtedly the most important question to be asked about any psychological test concerns its validity, i.e., the degree to which the test actually measures what it purports to measure.

Validity provides a direct check on how well the test fulfills its function. The determination of validity usually requires independent, external criteria of whatever the test or, in the case of this study, the selection program is designed to measure. For example: if the tests or program investigated by this study purport to select promising police applicants, ultimate success as a police officer would be a criterion.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

There have been four studies, to the authors' knowledge, that were comparable to or as comprehensive as this study. There have been numerous attempts to study and evaluate psychological and/or traditional selection of police officers. Studies based on written material about what is being done to improve police selection in relation to job performance and police behavior are included in this chapter. They dealt primarily with background investigations, IQ testing and personality inventories.

The Pittsburgh Police Department selection program was a working model and there have been no studies or any written materials relevant to this program. This being the only study of the program, there was no way to review literature relevant to the Pittsburgh program. The situation stated here makes this study original and as comprehensive as the four studies included in this chapter.

Review of the Researched Literature

A brief condensed history of police selection methods employed helps provide a background for the current interest being expressed about the improvement of police personnel.

This brief history also should provide some basis for the acceptance or rejection of many "traditional" police selection tools. This history will provide some insight into the introduction of psychological evaluations as applied to the police selection process. The history is by no means complete, nor is it meant to be, but it does provide some valuable insights about the interest expressed in improving the methods employed to select police officers.

England

The Metropolitan Police of London, England, came into existence and began service on September 29, 1829. It is generally recognized as the first modern attempt at providing public law enforcement services. In order to qualify as a member of that organization, the prospective officer was required to submit three character references, successfully complete a physical examination and written examinations, and an oral interview. Thus, from the early beginnings of law enforcement, officers were required to pass some type of selection standard. This rudimentary selection process, utilized by the Metropolitan Police of London, has been continued to the present day by many "progressive" departments. Thus, police selection has changed little in over 130 years.¹ Many departments have attempted innovative selection programs only

¹J.H. Chenoweth, "Situational Tests: A New Attempt at Assessing Police Candidates," Journal of Criminal Law, Criminology and Police Science, 52:232, 1961.

to stop short of implementation. Some have been researching selection programs for years but have never settled on a program.

Early America

The Berkeley (California) Police Department, under Chief August Vollmer in 1921, began using the services of a psychiatric consultant in their selection process.² This department became one of the earliest American organizations to improve on the traditional selection process developed by the London Metropolitan Police. However, this non-traditional approach found in Berkeley was not widely accepted and it was not until 1938 that other American police agencies recorded significant changes in their approach to police selection.

In 1938 police departments in Toledo, Ohio, and Wilmington, Delaware, both began using continuous psychiatric screening of police applicants.³ These two departments appear to be the earliest to utilize a continuous program involving some type of quasi-psychological evaluations. One of the problems encountered in an accurate reporting of the history of police use of psychological evaluations for police selection, is the fact that mental health literature of the early periods of psychological police recruit screening makes little distinction

²D.H. Wilson, "The Function of Psychiatry in a Municipal Law Enforcement Agency," American Journal of Psychiatry, 116:870, 1960.

³J.D. Matarazzo and others, "Characteristics of Successful Policemen and Firemen Applicants," Journal of Applied Psychology, 48:123, 1964.

between the psychiatric and psychological methods used in selection.

In 1955 an interesting study was conducted by Thomas Oglesby, a personnel technician for the city of Pasadena, California. Oglesby conducted a survey of over 90 cities having a population greater than 100,000. His survey had an 80 percent response rate.⁴ Results of that survey showed that 13 cities used some type of psychiatric or psychological testing in their selection process, but that types of examinations varied considerably.⁵ A government task force reporting to the President's Commission on Law Enforcement and Administration of Justice in 1966 found that after investigating police selection, methods for administering psychological evaluations varied from city to city. In Philadelphia applicants were interviewed by a psychiatrist; in Kansas City a psychologist interviewed applicants. The psychiatrists who were involved in police selection in the city of Los Angeles also administered two written tests, the Minnesota Multiphasic Personality Inventory and the Group Rorschach Projective Test.⁶

In a comparative study of police selection methods, undertaken by George W. O'Connor in 1961, results showed that

⁴T.W. Oglesby, "Use of Emotional Screening in the Selection of Police Applicants," Public Personnel Review, 18:231, 1957.

⁵Oglesby, op. cit., p. 31.

⁶Task Force Report, The Police: A Report by the President's Commission on Law Enforcement and the Administration of Justice (Washington, D.C.: U.S. Government Printing Office, 1967), p. 129.

psychiatric evaluations were utilized by 49 cities in 1961 as opposed to 30 cities in 1956.⁷ This seems to indicate that there was a growing movement toward some type of psychological/psychiatric police selection method in the 50's and 60's.

In 1966 a survey of assessment procedures used in 55 cities in the United States with a population in excess of 155,000 related that all the cities surveyed used some form of psychological testing for police recruit selection. In addition, 16 percent of the cities also required a psychiatric interview.⁸ V.A. Leonard, in the 1964 edition of Police Organization and Management, said, "Psychiatry as a personnel screening tool is beginning to receive the police recognition it deserves."⁹ O.W. Wilson states that the costs of psychological and psychiatric examinations is greatly offset by the money saved through the elimination of applicants deemed undesirable by that method.¹⁰

In 1967 the U.S. Government Printing Office published the "Task Force Report: The Police" which should serve as an introduction to this "section on other selection programs:"

⁷G.W. O'Connor, "A Survey of Selection Methods" (Part 2), The Police Chief, 29:64, November, 1962.

⁸R.B. Mills, "Situational Tests in Metropolitan Police Selection," Journal of Criminal Law, Criminology and Police Science, 57:99, 1956.

⁹V.A. Leonard, Police Organization and Management, Second Edition (Brooklyn: Foundation Press, 1964), p. 104.

¹⁰O.W. Wilson, Police Administration, Second Edition (New York: McGraw-Hill Company, 1963), pp. 146-147.

"Complexities inherent in the policing function dictate that officers possess a high degree of intelligence, education, tact, sound judgement, physical courage, emotional stability, impartiality and honesty. While innumerable commissions and expert observers of the police have long recognized and reported this need, communities have not yet demanded that officers possess these qualities, and personal standards for the police service remain low. The failure to establish high professional standards for the police service has been a costly one, both for the police and for society. Existing selection requirements and procedures in the majority of departments, aside from physical requirements, do not screen out the unfit. Hence, it is not surprising that for too many of those charged with protecting life and property and rationally enforcing our laws are not respected by their fellow officers and are incompetent, corrupt or abusive. One incompetent officer can trigger a riot, permanently damage the reputation of a citizen, or alienate a community against a police department. It is essential, therefore, that the requirements to serve in law enforcement reflect the awesome responsibility facing the personnel that is selected."¹¹

With the above statement, we feel that the reader is now ready to look at what has or is being done to meet this challenge of selection.

Characteristics of Police Applicants

From a study conducted by the Educational Testing Service, Princeton, New Jersey, in cooperation with the Police Training Commission and the Department of Civil Service in New Jersey in 1969.¹²

¹¹Task Force on the Police, "Task Force Report: The Police," Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1967, pp. 125-126.

¹²Leo S. Goldstein, "Characteristics of Police Applicants," The Police Chief, Vol. 39, No. 5, May 1972, p. 60.

A battery of five specially designed instruments, in addition to the civil service examination, were administered to more than 1300 police applicants during a four-month period. The performance of pass applicants differs significantly from that of fail applicants on various items of each test of the battery.

The results summarized above indicate that each of the instruments developed for this study has elicited some information which contributes to the development of a composite picture of the successful civil service police applicant. Additional examination of the data is presently underway at Educational Testing Service in order to determine the instruments' factor structure. However, before the instruments and data which they elicit can be applied to the recruitment and selection of policemen, additional study is required. It is anticipated that these instruments, in their present or a revised form, may be useful in the selection of police candidates and might serve either as replacement for or as adjunct to the present civil service examination.

Some combination of these instruments might enable the police administrator to select not only successful candidates, but also individuals who would have a good probability of becoming "effective" policemen. However, in order to accomplish this, it would be necessary to produce a more precise definition of "effectiveness."

The instruments referred to consisted of: (1) the police background investigation form; (2) the police opinion

questionnaire; (3) the police knowledge test; (4) the discretionary situations form; and (5) the personality inventory.

Police Entry Testing and Minority Employment

The police profession has long associated scores on intelligence tests with "quality" of applicants. The President's Commission on Law Enforcement, for example, recommended intelligence testing as one of the "absolute minimum techniques" to determine the intellectual fitness of police candidates. As a consequence, the "Griggs" decision by the Supreme Court has the potential of adding to the discord between the courts and the police community.

The case mentioned here was Griggs vs Duke Power Company decided by the Supreme Court on March 8, 1971. It dealt with the application of Civil Rights Act of 1964. The Civil Rights Act accepted intelligence testing scores as a criterion for employment provided "intent" to discriminate was not present. The Supreme Court ruled that while intent is relevant, the main concern of the Civil Rights Act is with consequences.¹³

IQ Tests

A study was conducted in New Castle County, Delaware, and dealt with the hiring of minority groups. They revised the Otis Quick Scoring Mental Ability Test, Gamma Form. The New Castle County Personnel Department was using an IQ requirement of 100 for police qualification. This requirement

¹³ Stanley Vanagunas, "Police Entry Testing and Minority Employment, Implications of a Supreme Court Decision," The Police Chief, Vol. 39, No. 4, April 1972, p. 64.

had been established upon the recommendation of the International Association of Chiefs of Police six years prior to this study.¹⁴

The authors feel that New Castle County has taken a first step in overcoming what was a serious problem by demonstrating that a change in IQ tests significantly reduced the number of minority applicants being excluded by the minimum IQ requirements of 100. It has been shown statistically that the scores obtained by the new test (Revised Beta Examination) are essentially the same as those obtained on the old test; and it is reasoned thereby that the high standards required of police applicants are not being compromised.

These conclusions are constrained, however, by what is not said about the tests. Observations are made for a given population sample and may not be valid for other jurisdictions. Also, no comment concerning the validity of IQ tests as a selection method for police is made; these are topics for continued research.

This change of tests had partially solved some of the selection problems and other agencies faced with a similar problem may wish to make use of this device.

Improving Police Selection

In Tucson (Arizona) personality factors predict permanence in the job of policeman more than interest patterns or

¹⁴Bernard E. Grady, "IQ Tests, The New Castle County Experience," The Police Chief, Vol. 40, No. 2, February 1973, p. 67.

intelligence. In the norm group, all men who had low interest scores on the policemen scale of the Strong had a personality profile very similar to the group -- especially the control factors. Although one would want bright, normal men on the force, it is clear the very bright do not stick with the force. Does this mean one can be too bright to be a good cop? Yes, unless an alternate career development program can be developed to challenge and use these bright men.¹⁵

There emerged from the data a pattern of a type of young man, usually bright to very superior, who has dabbled in a number of fields, frequently including some college. Yet he has never been able to resolve the conflict of his abilities, interests and the realities of his situation. He tries police work only to get dissatisfied and resign. The study calls this type "frustrated professionals." Dissuading him before the expense of training and the frustration of job dissatisfaction would profit both the department and the young man.

Most striking was the fact that during the thirteen months of the study, every dropout could have been predicted! What makes this fact even more striking is that the cost for the entire program averaged less than \$4.00 per man!

¹⁵William H. Thweat, "Improving Police Selection On A Shoestring Budget," The Police Chief, Vol. 39, No. 11, November 1972, pp. 62-63.

At the end of this study, there was a change of police chiefs in Tucson and the new chief did not choose to continue the research. However, the evidence collected so far would seem to indicate that a vocational counseling program could save the department considerable time and money. Also, such a counseling approach could steer men who do not appear to be suitable types for police training into other areas of appropriate city employment through the personnel department.¹⁶

The intangible criteria and subjective judgment employed in "screening" has particularly alienated the minority groups who perceive the establishment as an enemy and the screening procedures as barriers to keep them out. Counseling, with the supplement of psychometric data, could convince them that the city is making an attempt to be objective and nondiscriminatory. If police applicants who are unsuited for the department by reason of their patterns of abilities, interests and personality factors can be identified and placed in areas of municipal employment more appropriate for them, the city, the taxpayers and the individual would all profit. And this, it seems, can be accomplished even on a shoestring budget.

This above study, conducted in Tucson, Arizona, in 1968, established norms and predictive validity. The areas selected were for the norm group, means and standard deviations on the Otis Test of Mental Ability and the Strong Vocational Interest

¹⁶Op. cit.

Blank and personality factors on the 16 Personality Factor Test. Predictive validity was established in intelligence: the IQ scores of policemen who dropped out of the force were significantly higher in IQ scores than the norm group. Interest patterns: scores of the dropouts were significantly lower on the Strong Vocational Interest Blank Policeman Scale than were those of the norm group. Personality factors: the norm group scored higher in Factor G, the dropouts were more tenderhearted, less practical and more aware of internal stimuli. They were also more experimenting and less conservative and were more self-sufficient.

The Personality and Characteristics of Police Officers

A study conducted by the Law Enforcement Academy at Donelson, Tennessee, involving thirty police officers over a six-week training program, who had police experience of from one month to fourteen years and ranged in age from twenty-one years to forty-two years. It attempted to assess: (1) some of the personality traits of law enforcement officers; (2) their attitude toward their jobs; and (3) their attitude toward people in general. To accomplish this, officers were administered three tests: (1) the Sixteen Personality Factor Questionnaire; (2) the Philosophy of Human Nature Scale; and (3) the Law Enforcement Perception Questionnaire.

The answer is clear, when asked what type of person these officers were, they were a group of men who occupy the average range of the personality spectrum for the general adult male

population. They were decidedly average men when compared to available data on other groups.

On the whole, their views of fellow men were moderate. Sometimes they appeared to see people as they themselves are; sometimes in contrast with themselves; and sometimes without apparent relationship to their own personalities. These officers leave no doubt that they were positively oriented toward their chosen profession, its values and also toward the people in the profession.¹⁷

Conducting the Background Investigation

An article written by Edward L. Lee II, an assistant editor, The Police Chief, Information Services Division, International Association of Chiefs of Police, which dealt with the background investigation and its importance in the selection of police candidates. The basis of the background investigation is an organized and progressive collection and evaluation of facts and testimonies from individuals who have personal and official knowledge regarding a police applicant's educational record, employment history, physical and emotional health, sociability, integrity and overall personality.

This article does not allege to encompass a universal or even a comprehensive presentation on how the background investigation of a police candidate should be conducted under all

¹⁷ Robert Prytula, Julius J. Champagne, Charles F. Grigsby and Andrew J. Soltys, Jr., "The Personality and Characteristics of Police Officers and Their Attitudes Toward Others," The Police Chief, Vol. 39, No. 12, December 1972, p. 54.

circumstances and in all departments. Rather, it is a comparative guide for police administrators, police personnel officers and municipal personnel officials to collect background information for evaluation before a candidate is appointed to one of the most responsible and essential roles in contemporary American society. For only when the background investigation of a police candidate is properly conducted can an employing agency receive the caliber of law enforcement it should and must have.¹⁸

He lays down the qualifications needed by the background investigator as one who is a competent police officer with loyalty to the department, whose integrity and devotion to the law enforcement profession are unquestionable. He must have a diversified background in law enforcement, a knowledge of selection procedures, emotional suitability and psychology. He must be aware of the pressures under which a law enforcement officer must operate.

The Selection Process

The selection of recruits is a grave responsibility and one that stands first in importance on the list of personnel administrative duties. The competence and integrity of recruits appointed to the force will determine the status of police leadership and the quality of police service for the

¹⁸Edward L. Lee, "Conducting the Background Investigation of Police Applicants," The Police Chief, Vol. 39, No. 6, June 1972, p. 56.

ensuing 20 to 30 years. The chief, or his personnel officer, must apply, from the very beginning of the selection process, the two principles referred to earlier: only the best must be considered for selection, and any doubts about a candidate's qualifications must be resolved in favor of the department.¹⁹

This quote helps to place in perspective the importance of the background investigation, for where else do you have the capability of evaluating the performance of the applicant than in his past work and school experiences. Because of this, the background investigation must be built upon a foundation that relates to the police role.

Attracting College Graduates

A study was conducted by Northern Virginia Community College, Annadale, Virginia, dealing with the occupational goals of the June, 1971, graduates. It warned against the fact that the goals of these graduates were slanted towards federal uniformed and non-uniformed careers due to their close proximity to the federal government in Washington, D.C. However, it does serve to enlighten the police community to the goals and ideas of the college trained police applicant.

It is especially noteworthy that at this stage, where the usual educational requirement for entrance into most police

¹⁹O.W. Wilson and Clinton McLaren, Police Administration (New York: McGraw-Hill Book Company, third edition, 1972), pp. 259-260.

departments is only a high school diploma, the overwhelming majority of this group considers a four-year college degree a necessary preparation for a successful career in a police department. It argues well for the movement to professionalize the police field that so many of the upcoming generation already regard the police field in a professional light and are willing to dedicate themselves to the formal study so necessary to achieve that goal. The police administrator desirous of attacking this type of applicant would do well to emphasize the opportunity his department provides for educational advancement and the rewards his department offers those who continue their educational efforts.²⁰

Use of Written Examinations

An article written by Dr. Terry Eisenberg and Roger Reinke, both staff members of the Professional Standards Division, International Association of Chiefs of Police, dealing with an alternative method to police selection.

The suggested police applicant selection system, composed of: (1) successful compliance with a number of pre-employment requirements; (2) successful completion of academy training programs; and (3) successful probationary period field performance, brings into existence a number of economic, operational and human problems. The suggested system also reduces

²⁰Lander C. Hamilton and Donald Bimstein, "Attracting College Graduates to Police Departments," The Police Chief, Vol. 39, No. 8, August 1972, p. 43.

or eliminates other problems with which we are confronted today.

Equally important is the fact that many civil service rules and regulations presently prohibit implementation of the suggested strategy. Excellence in personnel management, however, requires problem-solving and expenditures. The elimination of candidates during training and probation who are judged unfit or unable to perform effectively in the field will demand both the revision of civil services rules and regulations and a willingness to incur initial increases in cost and inconvenience. However, these costs are considered to be of far less importance than the more long-range and critical consequences attendant to the employment of police personnel who, based on their field performance, never should have been appointed to the department.²¹

It is the considered judgment of the study that the problems resolved through employment of the proposed selection system far outweigh the new and different problems which its implementation may create. For example: employment of the suggested system would be more time-consuming, costly and occasionally very unpleasant when candidates must be eliminated from the selection process (especially during the second or third phase) because of inadequate performance.

²¹Terry Eisenberg and Roger W. Reinke, "The Use of Written Examinations in Selecting Police Officers: Coping with the Dilemma," The Police Chief, Vol. 40, No. 3, March 1973, pp. 24-28.

It is anticipated that a fair and valid written examination suitable for use during the initial screening phase of recruit selection will be developed in the immediate future. When such a test becomes available, it is suggested that it be employed to supplement the proposed system. The recommended selection system/strategy is composed of three major components cited below:

- I. Successful performance on a number of traditional pre-selection standards which appear to be bona fide occupational requirements.

Included would be the following:

- A. Height and weight.
- B. Vision.
- C. Education.
- D. Citizenship.
- E. Medical.
- F. Motor vehicle operator's license.
- G. Age.
- H. Background investigation.

- II. Successful completion of a recruit training curriculum documented, at least, by the passing of a comprehensive written examination covering candidate training curriculum.

- III. Successful completion of a probationary period of at least one year's duration from the time the candidate successfully completed academy training.²²

Chicago I

In 1964 the Chicago Police Department, in cooperation with the Chicago Civil Service Commission, started a continuing research program on applicants for patrolman. The objectives of the research, as initiated by O.W. Wilson and continued by Superintendent James B. Conlisk, Jr., were to study the

²²Op. cit.

characteristics of effective patrolmen to upgrade the quality of recruits and to validate the selection and evaluation procedures.

In Chicago, the Civil Service Commission and the police department have placed emphasis upon the totality of selection procedures, including recruiting, physical examination, testing, background investigation, training and probationary period.

While a great deal of valuable research on selection has been done by various progressive police departments throughout the country, this undertaking is unique because it is a predictive rather than merely a concurrent validation program. In a predictive validation program, as the name implies, all applicants are tested prior to employment and predictive ratings are checked against final acceptance of the men and their subsequent performance on the job. Test ratings are used for validation purposes only, without influencing the acceptance or rejection of candidates, otherwise the research would be contaminated.

In a concurrent validation program, on the other hand, tests are given to a group of patrolmen who have already been on the job for several years and on whom supervisory ratings are obtained. After the middle-rated third of the men are removed from consideration, the top-rated third and low-rated third are checked against test results to see how the scores differentiate between top-rated and low-rated patrolmen.

Tests are given and ratings are obtained simultaneously under controlled conditions. As a result, tests which come out as being effective in a concurrent validation study often fail completely when applied later in real-life situations or when utilized to predict future performance.

The main value of concurrent validation is to lay the groundwork for a subsequent predictive validation study -- with no assurance that successful results will then be obtained.

Altogether, the research program included 62 variables. While all items of information were studied to determine their possible value in prediction, the primary predictors were:

1. Civil Service Examination. Presumably, other things being equal, the higher the score, the more intelligent the applicant; and, therefore, the more likely to complete training school and to be effective in police work. As an indication of the effectiveness of the civil service examination (used in conjunction with the police background investigation and probationary training), it may be noted that, in the present study, after about four years, only 12 men out of the 280 men accepted as patrolmen had left the police force for any reason whatsoever. This rate of turnover is far lower than anything known in industry. Industry has for

years kept records concerning examinations, whereas in the police field little has been done; thus, the best comparison is with industry. When the police field begins keeping accurate records, then the comparison with police experience will be adequate.

2. Biographical Data. These included: age, education, military service, marital status, father's occupation, by whom reared and race.
3. MPI Ratings (Management Psychologists, Inc.). These ratings were made on a purely research basis with the understanding that they would not be used to determine or to influence acceptance or rejection of applicants. They were based on the Personal History Form (an application blank especially designed for personality as well as factual analysis) and Sentence Completion Form, both of which were adapted for police applicants. These forms had already been used in evaluating several hundreds of cases for the police department, in categories other than patrolman, over a period of years. Applicants were rated above average, questionable or poor, with a brief description of the individual's strengths and limitations.

The Personal History and Sentence Completion Forms are not "tests" in the usual meaning of the word because they do not yield quantitative, objective scores. Instead, the MPI Rating represents a professional judgment, taking many personality and social class factors into account and then looking at the individual as a whole. The analytical procedure is not just a matter of processing numbers or scores, but rather related to an understanding of the individual's background and developmental history -- including minority group origins -- to the requirements of the job.

The criteria for this program were:

1. Applicants who pass the civil service examination must pass the department's background investigation to be accepted for training. Thus, the first criterion is "failure to qualify" because of unfavorable background incidents.

The background investigation conducted by the department is more comprehensive than anything undertaken in industry. When the results are considered unsatisfactory, the director of personnel prepares a so-called "failure to qualify" letter outlining the reasons therefore and attaching pertinent documents. This is then sent to the Civil Service Commission. The Commission then holds formal hearings on such cases as may be required and makes the final decision to accept or reject the applicant.

2. Once accepted, there are a number of criteria of effectiveness as a patrolman. The indices chosen for this study are: (1) Chicago Police Department performance rating; (2) Chicago Police Department awards; (3) arrests (index crimes); (4) arrests (non-index crimes); (5) sustained complaints; (6) ratio (sustained/total complaints); (7) lost-time index; (8) sick leave abuser list; (9) safety record (preventable); (10) one or more achievements; and (11) one or more undesirable characteristics. The first nine indices were available from police department records.

The last two indices are composites constructed as indicated: (1) appointed to task force, appointed as youth officer, awards index greater than 400; and (11) two or more sustained complaints, two or more preventable accidents and two or more times on sick leave abuser list.

In this research program, 427 candidates for the position of patrolman -- from an original group of 1290 applicants who took the Civil Service Examination #6840 of November 7, 1964 -- were followed up after four years. A study of a

number of indicators of effectiveness as a patrolman led to a selection of two primary criteria as a focus for this study: (1) failure to qualify in the department's background investigation; and (2) the department's performance ratings.²³

The data presented here establish the validity of MPI ratings and other measures on a predictive basis.

Chicago II

The first goal of a 1968 study conducted in Chicago by Melany E. Baehr and Associates²⁴ called for a comprehensive validation process to insure the appropriateness and empirical acceptability of the tests as tools in a systematic procedure for selecting patrolmen. The second goal was more challenging as well as more exploratory, since it attempted to go beyond the oversimplified concept of a single common performance criterion and show that there are a variety of successful and unsuccessful patterns of field performance. The second goal has implications for the area of placement as well as for the achievement of a more accurate appraisal of the complexities in the psychological make-up of police officers.

In "The Challenge of Crime in a Free Society," the President's Commission reported that more than 50,000 police

²³Gilmore Spencer and Dr. Robert Nichols, "A Study of Chicago Police Recruits -- Validation of Selection Procedures," The Police Chief, June 1971, pp. 50-55.

²⁴Melany E. Baehr, John E. Furcon and Ernest G. Froemel, Psychological Assessment of Patrolman Qualifications in Relation to Field Performance, U.S. Government Printing Office, Washington, D.C., November 5, 1968.

recruits are needed to bring all law enforcement departments in the United States up to their authorized strength. This poses a problem with regard to attaining authorized strength while maintaining the level of moral, physical and mental qualifications considered desirable for patrolmen.

The Chicago Police Department meets this problem by utilizing several selection methods:

1. A mental test developed by the Civil Service Commission.
2. A battery of psychological tests analyzed by an outside psychological firm.
3. A thorough background investigation conducted by the detectives of the Chicago Police Department and backed up by
4. A psychiatric evaluation board when indicated.

All these procedures serve to eliminate persons who do not meet the standards set for police officers in Chicago.

Since there was an interval of about five months between the administration of the test batteries to the two selected samples of patrolmen, they were able to approach the problem of validating the occupational test battery by first completing an analysis for the Wave I sample. As a result of this analysis, they dropped tests from the battery which appeared to be least predictive of performance.

The findings for the Wave II sample justified these substitutions, in that they resulted generally in increases in the predictive efficiency of the battery. However, except for these small differences in the level of efficiency, the results for the Wave II sample essentially replicated those

for Wave I and no distinctions between samples will be made in the following discussion.

The first conclusion which could be drawn from the primary analysis was that, for the total group of patrolmen, there was an acceptably high and satisfactorily significant relationship between the test battery scores and independent measures of performance. This was especially true of the three major performance criteria -- the paired-comparison performance rating; the Chicago Police Department performance rating; and tenure -- but also held for all other performance measures used in the study. This indicates that the tests selected were relevant and that the measures of present performance were appropriate.

The second result was less expected. While significant relationships between test scores and performance could be demonstrated for the total group of patrolmen, the degree of this relationship increased when the subgroup of white patrolmen was treated separately and increased even more spectacularly and significantly when the Negro subgroup was treated separately. These findings caused a revision in the original experimental design for the cross-validation in which weights established on one sample of employees are applied to a different sample in an attempt to predict their performance.

In the cross-validation analysis, sets of weights were established on randomly selected parts of the total racially mixed group and on the white and Negro subgroups separately. The

results of this analysis indicated that the best prediction of performance was obtained when weights based on a specific racial group were applied to members of the same group, and that this was particularly true of the Negro group. By contrast, the poorest predictions (sometimes at the pure chance level or even negative) were obtained when weights based on one racial group were applied to another.

Applying weights based on the total racially mixed group to the separate racial groups produced inconsistent results, sometimes yielding reasonably acceptable predictions and at other times predictions at no more than chance level. These results led the research project to an investigation of validation models which could be applied to racially mixed groups. The recommendations of separate validations for different racial groups is in accordance with the thinking of a growing body of professional workers in this field and with the suggestions of the Equal Employment Opportunity Commission.

The results of the analysis also allowed the Chicago researchers to identify the areas of psychological measurement and the specific tests which assessed characteristics likely to be most predictive of patrolman success. The next step was to describe attributes of currently employed patrolmen who participated in this study through the interpretation of group profiles on the predictive tests. Since these predictive tests come from each of the three broad areas of measurement, a multi-faceted picture emerges of desirable skills and

attributes on many dimensions of human behavior.

For patrolmen of both races, it is desirable that they assume family responsibility early by establishing a family and a home and that they evidence some stability both in their family and their occupational environments. A history of generally better than average good health is also helpful.

In the area of personal skills and qualifications, apart from an at least average level of functioning intelligence, some of the most important attributes for success are the characteristic modes of behavior exhibited in dealing with interpersonal and social problems. The desirable response is one of cooperation and an active endeavor to solve the problem rather than withdrawal from the situation, undue competitiveness in attempting to resolve it by outdoing others, or an expression of hostility toward it.²⁵

In the area of temperament and personality functioning, the desirable attributes are those which make for control of purely impulsive and emotional responses and for a "work" rather than a "social" orientation. Other important characteristics would be personal confidence, resistance to stress and a realistic rather than a subjective and feeling-oriented approach to life.

Although deviant groups of patrolmen undoubtedly exist in police forces throughout the country, and are likely to attract attention because their behavior is constantly open

²⁵Op. Cit.

to public scrutiny, the results of the Chicago study by Baehr are in direct contradiction to the statements made by those who maintain that sociopathic tendencies are required for patrolman success or that you have to "set a thief to catch a thief."²⁶ The desirable attributes mentioned here are measured by the tests and patrolmen who scored high on these attributes were, in general, those who were independently given high ratings for performance by their supervisors. Therefore, it must be concluded that the ideal attributes for success are all related to stability -- stability in the parental and personal family situations, stability stemming from personal self-confidence and the control of emotional impulses, stability in the maintenance of cooperative rather than hostile or competitive attitudes, and stability deriving from a resistance to stress and a realistic rather than a subjective orientation toward life.

San Jose Study

This study was conducted by Peace Officer Research Project, San Jose City Health Department, San Jose, California. It involved gathering and studying the personnel files of 4500 law enforcement officers in 14 police jurisdictions to ascertain if they could locate and identify recorded pre-appointment factors which would significantly discriminate between those who left their positions because of occupational inadequacies, including personal behaviors intollerable

²⁶Op. cit.

to their employers and those who were considered adequate or successful.

The hypothesis was that the personality characteristics of unsuccessful law enforcement officers, as revealed in their personnel files, would show significant and identifiable differences from the personality characteristics of non-failures, and that certain combinations of life historical events would have significantly discriminating values of the two groups.

Because of the nature of the contents of the files; because of the tremendous variability among agencies in record-keeping, in extent of background investigations, in requirements for appointments and in methods used for commendation and punitive action; because of the desire to eliminate unnecessary additional heterogeneity from a group which tends, by nature, to be heterogeneous; and because paucity of information in some files made them practically worthless for any serious scientific consideration; for these reasons we eliminated from the quantitative data computation phase all cases categorized as follows:²⁷

1. Service retirement.
2. Disability retirement.
3. Death while in service.

Once the above described eliminations had been completed, the research staff abstracted from each file all information

²⁷Ruth J. Levy, "Predicting Police Failures," The Journal of Criminal Law, Criminology and Police Science, Vol. 58, No. 2 (1967), pp. 265-276.

recorded up to the day of appointment. They used no check lists or other such devices which might have shortened their task, because they insisted that the records tell the story. Consequently, from some departments they obtained voluminous case histories with information including subject's ordinal position in his parental family; school grades; I.Q.; number of club memberships; tendency to enuresis during childhood; father's income; hobbies; use of authoritarian manner with own children; degree of observable cleanliness in home; illnesses of siblings; color of eyes; reasons for termination from former employment; number of television sets in the home; military experiences; stated life goals; and reason for applying for employment as a law enforcement officer.

From some departments they obtained handwritten pre-appointment autobiographies. From some they obtained only skeletal outlines, the personnel files being devoid of almost all preappointment information except for birthdate, education and place of residence; blood pressure; height; weight and marital status at time of application.

For quantitative analysis, they used only such factors or variables on which information was found in at least 50 percent of the records. When these had been ascertained, they coded the information for each variable in each record. It was found that certain life historial background characteristics are significantly related to subsequent non-retention. Officers who are terminated for cause by their

departments tend to be younger at the time of appointment, to have a greater number of years of education, a greater number of marriages, shorter work histories, more citations for vehicle code and other violations, and, in general, to present a pattern of greater mobility and uncontrolled impulsivity than do the officers who are retained.

If they were to speculate on the meaning of the quantitative and qualitative findings, the appointees most likely to remain in law enforcement are probably those who are more unresponsive to the environmental stresses introduced when they become officers of the law than are their fellow appointees.

This was a retrospective study from which it was hoped there would evolve a set of traits and life historical events which could be incorporated into a screening device. Some areas of importance have been determined, and it is now mandatory that these be fully explored in a prospective study for the purpose of establishing their reliability and validity. As law enforcement changes, its representatives will also change. Factors constituting unsuitability for law enforcement are dynamic and not static, but the areas encompassing these characteristics will remain constant as long as the task of police officers is to enforce the laws imposed on us.

The results emphasize that rejecting the applicant who is "emotionally unstable" is not as effective in eliminating the high risk as would be rejection of the "emotionally

unsuited." The two terms are not synonymous. Until now, diagnosed personality pathology has often served to eliminate applicants. On the basis of the findings, it appears possible that the theoretically conceived individual with no pathology may be a higher risk than his brother whose emotional make-up includes certain problem areas. Any preappointment screening device must be specifically tailored to the unique needs of the law enforcement profession.

Situational Tests

This is a study conducted with the Cincinnati Police Department to develop situational tests in the selection of police recruits.²⁸

Certainly the multiple responsibilities of the metropolitan police officer have made it increasingly difficult to define his field performance as a unitary function. But to limit selection procedures to measures of general intelligence, either in standardized form or disguised as "police aptitude" tests, may be an inadequate response to the assessment challenge. It seems likely that tests which include a general intelligence factor will continue to correlate with most measures of police performance and will therefore continue to serve a useful function as a screening device. Their so-called "objectivity" and face validity recommend them to

²⁸Robert B. Mills, Robert J. McDevitt and Sandra Tonkin, "Situational Tests in Metropolitan Police Recruit Selection," Journal of Criminal Law, Criminology and Police Science, Northwestern University School of Law, Vol. 57, No. 1, pp. 99-106.

civil service boards and similar hiring bodies.

However, the sole reliance upon paper-and-pencil intelligence-type tests leaves much to be desired. Critical motivational-emotional-personality dimensions are untapped. Whether these personality dimensions can be adequately sampled by the addition of standardized personality inventories to the test battery is questionable, despite the ingenuity of test makers.

Since most personality tests were standardized on different populations from police recruits, a questionable extrapolation to the recruit group must be attempted. In addition, the police candidates seem even more guarded than the average job applicant so that their test responses are hard to interpret and hardly typical of their usual functioning. At best, objective personality inventories seem best suited for personality screening to pin-point rather obvious pathology.²⁹

It would seem, therefore, that a technique(s) for assessment of non-intellectual functioning which has demonstrated relevance to police performance in the field is needed.

Three situational tests, analogous to tests used to select OSS personnel in WW II, were devised as part of an overall psychological evaluation program for Cincinnati police candidates. Tests were termed: Foot Patrol Observation Test, Clues Test and Bull Session. These tests were administered

²⁹Op. cit.

to two groups of candidates and correlated with final rank in class after completion of police academy training.

The Clues Test was significantly correlated with police academy performance, but not with an intelligence measure (AGCT) which suggested that non-intellectual traits important to police performance may be tapped with situational tests. The Bull Session, indirectly measured by its close tie with successful predictions by the evaluation team of police academy performance, was also judged to be an important measure of emotional-motivational traits predictive of superior police performance in the field. The third situational task, Foot Patrol Observation Test, did not appear to be predictive of later success in training.³⁰

Further validation of the situational test technique is necessary to establish its value in police candidate assessment, and a weighted activity rating of field performance of patrolmen is under study for later report. However, situational testing shows promise as a supplement to conventional paper-and-pencil procedures for police selection, if adequate reliability and validity studies can establish its usefulness.

Personal Interview

This is one of the time honored methods used to help select police personnel. Many police executives feel that this is one of the real tests of character and personality

³⁰Op. cit.

when the applicant comes face-to-face with his prospective employer or someone important in the organizational hierarchy.

The score achieved by the candidate on this "test" usually goes a long way toward either initial selection or promotion. The question raised about this selection tool by behavioral scientists is, "How well does this tool or method predict performance or assess personality characteristics?" The method is, in many cases, highly subjective, with its validity more dependent upon the skills and biases of the interviewer rather than upon the qualifications of the interviewee.³¹ Unfortunately, experience in the field gained by the interviewer does not necessarily lead to a meaningful interview, and all interviewers are not equal in their ability to judge personality characteristics. The same applicant could very conceivably receive an excellent recommendation from one interviewer and a very poor recommendation from another in a span of several hours.

E.C. Mayfield cites an old experiment in which salesmen were evaluated by personnel managers. Six managers evaluated the salesmen on their sales potential. The relationship of the judgment was about that of chance. As a result, Mayfield provides data that shows that the personal interview is inefficient, time-consuming, highly subjective, frequently invalid and too often the final hurdle in the selection process.

³¹C.J. Morgan, Introduction to Psychology (New York: McGraw-Hill, 1956), pp. 227-228.

He maintains that the interview procedure can be improved through complete restructuring.³²

O.W. Wilson³³ and J.P. Kenny³⁴ consider the personal interview necessary to appraise the appearance and intangible qualities, but limit the conclusions that can be drawn from it.

G.J. Dudycha, in the first few pages of his book Psychology for Law Enforcement Officers upholds the opinion that personal interviews in personnel selection are influenced by bad as well as good experiences, by prejudices, by subjectiveness and by poor organization.³⁵ A.C. Germann, while supporting the interview method, sharply limits the weight that can be attached, quoting Milton Mandell as saying, "The basic difficulty with this type of method, as usually conducted, is that it involves making extensive inferences from limited data in an artificial situation by unqualified observers."³⁶

M. Stern further negates the value of the interview saying the questions as well as the "right" answers are well known by the interviewees. An example of this problem is illustrated by Stern, "Why do you want to become a policeman?"

³²E.C. Mayfield, "The Selection Interview -- A Reevaluation of Published Research," Personnel Psychology, 17:239-260, 1964.

³³O.W. Wilson, Police Administration (New York: McGraw-Hill, 1963), p. 150.

³⁴J.P. Kenny, Police Management Planning (Springfield, Illinois: Charles C. Thomas Company, 1959), pp. 3-4.

³⁵G.J. Dudycha, Psychology for Law Enforcement Officers (Springfield, Illinois: Charles C. Thomas Co., 1959), pp. 3-4.

³⁶A.C. Germann, Police Personnel Management (Springfield, Illinois: Charles C. Thomas Co., 1959), p. 55.

The right answer is returned in the classic form, "Because I have always wanted to help others, SIR."³⁷

Investigating the personal interviews customarily given, several basic questions can be answered. It may reveal how an applicant behaved under specific interview conditions. It may also give an indication as to how the interviewee was able to deal with a superior officer and how he was able to adopt his standards. It shows what the applicant looks like physically, how he dressed for the occasion, his mannerisms and speech under the conditions, and may be able to throw some light on questionable or unresolved aspects of the background investigation.

It is easy to point out the apparent disadvantages of this selection method. The procedure is time-consuming, resulting in high cost. It is largely a subjective assessment, without empirical validity for personality evaluation. It is quite likely to be influenced by prejudices and invalid experiences on the part of the interviewer. It usually does not indicate whether or not an applicant is of good character, highly motivated or will perform his job well if selected.

The advantages of the personal interview are that it obviously spots outstanding unsuitable mannerisms, has a certain amount of stress reaction value and provides a method to

³⁷M. Stern, "What Makes A Policeman Go Wrong?", Journal of Criminal Law, Criminology and Police Science, 53:97-98, 1960.

integrate, evaluate and resolve previously gathered data. One of the methods for improving the personal interview is through the use of rating scales.

This selection method is often used in conjunction with the personal interview or observation process to compare impressions of selected personality traits among different candidates. It is one of the oldest and most widely used practices for determining a general level of "sociability" and performance. In this type of situation, the subject is usually given a value rating on each of the traits observed. Since the ratings are usually made by several persons, the validity is comparatively higher than that for individual personal interviews.

The disadvantages are that the terms used in rating scales may not be understood in the same way by all the raters. There are also unreliable raters, who always rate at extreme ends of the scale or who always stay with the "happy medium" or mean deviation. This problem of always rating at extreme ends of the scale tends to widen the variation so that results are often unreliable. Always rating a person at the mean of the scale often overlooks those traits of high importance to the final decision.

Other disadvantages are that overt surface traits are much more likely to be revealed than those that are covert or inner. It is easy to see that as a result some persons are much more accurately rated than others. A further disadvantage is that most rating techniques have been validated on

groups of persons already employed for some period of time rather than on incoming candidates for a position. Depending on the raters, the reliability coefficients for repeated ratings are usually found in the neighborhood of .50 to .60 with occasional examples in the .85 to .90 bracket.³⁸

The advantages of rating scale use are, that when used by several raters, bias is minimized and the results are easily obtained, prepared and assimilated into the selection process. A higher validity than that found with the use of the personal interview would suggest its inclusion in the police selection process either in conjunction with the personal interview or in place of the personal interview. The process may be of significant value if the raters are trained, alleviating the problems of misunderstanding and clarifying the objectives of the process.

Self-Report Personality Inventory

The whole field of personality diagnostics remains outside the realm of the average police executive charged with the selection of police candidates. Personality evaluation through the use of sophisticated techniques remains in the domain of the clinical psychologist. One of the most rapidly growing tools used in diagnosing personality is the personality inventory, or "paper-and-pencil" tests. Some are in the process of being modified and/or adopted for use in the

³⁸Freeman, op. cit., p. 458.

police selection process. The use of personality inventories for selecting police candidates goes a step beyond the personal interview and rating scale approach.

The characteristics of these types of inventories or tests are that they are easily administered, inexpensive to procure and can be administered to an individual or large group. There are many, some which have high reliability and validity, and others which do not.³⁹ In general, their construction depends on a sampling technique, in which questions are asked which pertain to a specific personality trait. The scores from the various questions asked are compiled, related to the traits measured and a "profile" is constructed. The profile constructed is often a line graph connecting the various category scores and relating them to norms.

The scores are easily obtained because the majority of tests allow only a "yes" or "no" response as possible answers. "Uncertain" may be indicated, but usually is not considered a choice. Questions are simply worded and are taken from commonly read media occurring in a wide variety of sources, usually seen as symptomatic of the traits or disorders to be measured. The exact nature and scope of the items, of course, is dependent upon the purpose for which they will be used, age of the examinee, sex, etc.

³⁹A. Ellis, "Recent Research with Personality Inventories," Journal of Consulting Psychology, 17:45-49, 1953.

Examples of the questions taken from a well known self-report inventory (the MMPI) are:

"I generally prefer to attend movies alone."

"I occasionally cross the street to avoid meeting someone I know."

"Do you sometimes feel like jumping off when you are on a high place?"

The disadvantages of using the personality inventories can, to some extent, be seen in the sample questions and fall mainly under the heading of validity. There is a significant problem in verifying whether or not the responses are true or false. The "halo" tendency for people to overrate themselves and put their best foot forward, especially when applying for employment, subjects personality inventories to a margin of error. The error is increased when answers are given incorrectly, because the subject failed to read the question properly or had a different colloquial connotation of the meaning. Some persons cannot be evaluated by a self-report type of personality inventory because they are not capable of self-analysis and do not recognize their own behavior. Even if the responses are truthfully given, based on a complete understanding of the question, "yes" or "no" answers do not give a fine discrimination. In tests such as these, personality becomes a score instead of an entity, so close discrimination between content items is, while still a problem, necessary.

There is an argument that personalities may never be accurately grouped as statistical finalities. Since inventories

seldom deal with motives or needs, the reasons behind many answers and questions are obscure. Thus, it cannot be assumed that because the answers and traits are the same that the underlying pathology is congruent.

The advantages of the inventories of the self-report test rest in their availability and ease of administration. This would seem to encourage testing of this type where none had existed and promote subsequent retesting. Several of the inventories in use have been widely used with fairly good correlation rates showing reliability.

The validity of these tests in police selection is a clouded issue, in that norms have not been extensively established on the groups of persons for which the test is being used. Further use in the police selection process would aid in the evaluation of these instruments through practical application to police employment standards. Until a test has been used extensively in a particular employment setting, it is hard to evaluate its validity in that setting.

One drawback to using several types of the inventories is that normative data was established on persons highly dissimilar to police officers. Increased research and validation attempts may prove these self-report inventories of great value to the police selection process. Misrepresentation on self-report inventories, while seen as a disadvantage, may be an asset rather than a liability by providing a valuable aid to interpretation. It is fairly well established that extreme

behavior patterns show up consistently, although the scores obtained may not positively indicate a personality disorder, and they certainly point the way for a more extensive clinical evaluation based on interview techniques, more sophisticated personality assessment with projective techniques, or further analysis of background facts concerning the social history of the candidate.⁴⁰

At present several self-report personality inventories, tests and scales have found their way into the police selection process. Some of the better known and more widely used are: the Minnesota Multiphasic Personality Inventory, the Guilford Zimmerman Temperament survey and the Edwards Personal Preference Test.

Minnesota Multiphasic Personality Inventory (MMPI)

As reviewed by Albert Ellis, consulting psychologist, in the Fifth Mental Measurements Yearbook,⁴¹ the MMPI claims to be the personality inventory upon which more theoretical and practical research and evaluation has been done than on any other in the history of modern psychology.

This inventory yields 14 scores measuring personality categories representative of hypochondriosis, depression, hysteria, psychopathic deviate, masculinity and femininity, paranoia, psyasthenia, social lie validity and test taking

⁴⁰Freeman, op. cit., p. 500.

⁴¹Buros, The Fifth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1959), item 86.

attitudes. Scores are based on true or false responses to 550 test questions answered by the candidate or subject in response to himself. It is also possible to mark the items "doubtful" if the subject is not able to make a clear judgment on the question. The questions are based on life experiences and cover items concerning family relations, social and political attitudes, mood-tones, beliefs, etc. The normative data was established by validating the test categories on scores made by mental patients in various psychiatric diagnostic groups which the test purports to measure. Validity studies indicate that about 60 percent of the MMPI predictors prove out as a final diagnosis in psychiatric admissions.

Special disadvantages are that deviant scores on the scales do not always indicate sufficient severity to warrant immediate need for treatment by a psychologist or psychiatrist. On the contrary, all scores on the MMPI are considered within a normal range until the results have been correlated to the results of a psychiatric or psychological interview and other pertinent background information. Since there are numerous scales and comparisons, coupled with the complex interrelations found among the scales, the test requires a specialist trained in interpreting MMPI scores. Consequently, studies which report that the inventory is effective as a screening device for "abnormality in general" in mass selection situations cannot be considered as true assessments of the analytic-diagnostic validity of the inventory. Nor would such

studies appear to have great clinical import in view of the demonstrated practical effectiveness for screening purposes of simple abbreviated questionnaires.⁴²

Advantages of using the MMPI are the careful standardization done; standardized psychiatric terminology employed; the great care with which the test has been constructed and researched; its value in providing some "key" areas to be explored in the personal interview; some use and validity information as applied to police selection; and use of four corrective scales which check on falsification, understanding of test items, number of items omitted and defensive or bias attitudes toward the test.

Guilford-Zimmerman Temperament Survey (G-Z)

This test is also a self-report personality inventory. It measures general activity, restraint, ascendance, sociability, emotional stability, objectivity, friendliness, thoughtfulness, personal relations and masculinity. It was the result of an effort to arrive at a systematic classification of personality traits through the use of factor analysis.

The items in the G-Z survey are expressed in the form of affirmative statements rather than questions. Most concern the examinee directly, while a few represent generalizations about other persons. The affirmative item form was

⁴²Buros, The Third Mental Measurements Yearbook (New Brunswick, New Jersey: Rutgers University Press, 1949), item 60.

chosen in the effort to reduce resistance that a series of direct questions is likely to arouse. As in the MMPI, scores on the G-Z are transformed into profiles. Attention is called to the desirability of interpreting not only single trait scores, but the total profile scores. For example, a high General Emotional Activity score is favorable if coupled with a high General Activity score, but may be unfavorable if coupled with a low General Activity score.

David R. Saunders, Research Associate, Educational Testing Service, Princeton, New Jersey, in his review of the G-Z found in the Fifth Mental Measurements Yearbook,⁴³ indicates that this instrument approaches measurements from the factor analysis method with the results that the test is too brief to be accurate.

Advantages in the use of the test are: three verification keys provided to detect falsification and carelessness of response; it is well constructed and has a sound statistical approach; it is easily administered and has reliability and validity information. But it does, however, require a trained person in the interpretation of results.

Edwards Personal Preference Scale (EPPS)

This test is a need-oriented test believed to be based on sound theory and possessing high potentiality. It measures achievement, deference, order, exhibition, autonomy (need to

⁴³Buros, The Fifth Mental Measurements Yearbook, op. cit., item 65.

work independently), affiliation, intraception, succorance (need for encouragement, kindness and help), dominance, abasement, nurturance, change, endurance, heterosexuality and aggression. The test has found its best clinical results when used in conjunction with other psychological evaluation instruments.

There are several disadvantages to using the EPPS. As reviewed by Anne Anastasi in her publication Psychological Testing, the EPPS is in dire need of: (1) revision to eliminate certain technical weaknesses, particularly with regard to item form and score interpretation; and (2) properly conducted validation studies utilizing techniques of score pattern analysis appropriate to ipsative scores.⁴⁴

An explanation of ipsative scores is beneficial when looking at a test such as the EPPS. In the test at hand, it means that the strength of each need measured is expressed, not in absolute terms, but in relation to the strength of the individual's other needs. The frame of reference in ipsative scoring is the individual rather than the normative sample. Whenever an individual responds by expressing a preference for one item over another, the resulting score is ipsative. Under these scoring conditions, two individuals with identical scores on any one EPPS scale may differ markedly in the absolute strength of their needs. Because of the ipsative

⁴⁴Anne Anastasi, Psychological Testing, Third Edition (New York, New York: MacMillan Company, 1968), pp. 452-454.

factor in scoring, the conversion of EPPS scores to normative percentiles may be questioned.

Although the MMPI has in many instances replaced the EPPS due to greater clinical possibilities, the test may still be valid if used in conjunction with other psychological evaluation instruments. It does measure personality traits which are of interest to the police selection process. A strong theoretical base coupled with ease of administration give the EPPS its potentiality. Improved scoring techniques and validation in the police selection process would add another standardized instrument to the battery of tests appropriate for police selection.

Projective Techniques

Projective techniques present a curious discrepancy between research and practice. When evaluated as a psychometric instrument, the large majority make a poor showing in regard to reliability and validity. Yet their popularity in clinical use continues unabated. The major distinguishing feature of projective techniques is to be found in their assignment of relatively unstructured tasks which permits an almost unlimited variety of possible responses.

Only brief general instructions are given the test respondent in order to allow free play to his thought processes. This method is used to induce the subject to reveal (project) his motives and personality characteristics without being consciously cognizant of doing so. The expected result is a

verbal, drawn or written portrayal of the way the test respondent sees and feels about his social environment, thus giving the psychologist clues to the needs, interpretations and adjustments of the individual.

The tests or techniques are structured to be extremely general in nature in order to give the subject as wide an area as possible for response. Test stimuli are vague and ambiguous. The underlying test theory is that the way in which the individual perceives and interprets the test materials or "structures" the situation will reflect fundamental aspects of his psychological functioning. In this manner of testing, it is hoped that the test materials will serve as a screen on which the respondent "projects" his characteristic personality, thought processes, needs, anxieties and conflicts.

The test stimuli most widely known and used in projective techniques consist of ink blots, pictures, word association and sentence completion tasks. As the subject answers questions about the various stimuli, the responses are noted in detail and evaluated at a later time by the psychologist. At no time is the subject told the reasoning behind the stimuli or test questions. Due to this type of design, the projective technique presents a "global" approach to personality assessment, observing the individual as a "whole" rather than measuring individual traits.

The disadvantages of employing projective techniques as a selection instrument begin with the requirement that they be administered and evaluated by highly skilled specialists. Due to this fact and the involved protocol, they are time-consuming and expensive. Although maximum effect is achieved when they are administered individually, there is some record of successful group application with certain of the techniques. The skill of the specialist that administers and evaluates this type of test cannot be overestimated. The interpretations drawn from test answers are based upon particular theories of human behavior, not upon standardized answer sheets thus reinforcing the requirement of an expert.

A second disadvantage to using this type of instrument for selection is concerned with a lack of standardization and the fact that validity and reliability have not been empirically established for their use as a police selection instrument. Test results are professional judgments as opposed to empirical scores.

There are several advantages to using projective techniques as a selection instrument. Most important, they are a type of psychological interview giving a wide picture of the individual's personality, the "global approach." They allow for evaluation of traits in view of the interplay of total personality. The techniques are difficult to falsify without detection due to the rapport maintained between the examiner and examinee. Further, this type of instrument is more likely to arouse interest and participation and since

there is no possibility of reading errors, misunderstandings and unqualified answers are held at a minimum. As such, projective techniques are clinical instruments which can yield information that would not be ordinarily obtained without the use of extensive psychological interviewing.

One last possible advantage that may be noted about the use of projective techniques is that they may be less subject to cultural bias, in that they are highly verbal and allow free play of response rather than limiting a subject to making a choice among items with no chance to explain or qualify his answer. Because there are no standard answers, the answer given by the test respondent is evaluated in the context of his total response to test stimuli.

Rorschach Test (Projective Technique)

One of the most popular projective techniques is undoubtedly that employing Rorschach inkblots. It is considered by some to be the most important single psychological instrument for measuring personality. The instrument was developed by a Swiss psychiatrist, Hermann Rorschach, in 1924 although the technique was described as early as 1921.

The test purports to measure most of the dynamics known to personality and has achieved high correlations when compared with severe personality disorders. The results, however, are not as predictable in other cases because of the large range of responses and the subtlety of personality that is

unknown as yet.⁴⁵

It is readily apparent that the use of a highly skilled clinician, trained in Rorschach methods, is imperative to administration and interpretation of the instrument. Diagnosing a subject's response and then correlating that response to a pattern is extremely difficult and should be left only to the trained psychologist. The number of psychological examiners trained in the use of Rorschach is small and the proposition of securing the services of such a specialist for police applicant screening would be difficult. The problem in this instance would not seem to be so much a matter of cost but more of finding the expert.

The question of Rorschach applied to police screening should also be evaluated in light of its value when used individually as opposed to being administered to a group. Skilled examiners have reported success in both settings, however, since most police departments have budgets which are limited, the time and expense of individual administration may be a decisive factor. Los Angeles reports satisfactory results with a combination of group Rorschach and MMPI, but until there is some way to measure and compare the actual performance of those who were screened out with this process, against those who were selected for police service, the

⁴⁵Buros, The Fifth Mental Measurements Yearbook, op. cit., item 154.

reliability and validity of the technique is open to question.⁴⁶

The significant point about Rorschach as a police screening instrument is that it has intuitive value to some psychologists. Since it is an instrument that measures some of the very qualities of personality that are of intense interest to police administrators, there seems little reason to resist its use if it can be obtained.

The disadvantages of using Rorschach at this point in time are: finding a qualified examiner, assessing test validity and reliability, and the time consumed in the testing process. Although the group administration method may alleviate the time disadvantage, it is generally accepted that this method is somewhat inferior to the individual administration.

Advantages are realized in the fullness of the Rorschach examination and the general esteem which an increasing number of clinicians assign to the technique. The test presents a structured psychological interview which attempts to assess the "global" characteristics of personality, rather than individual traits. This would certainly seem preferable to the unstructured personal interview conducted by unskilled interviewers. Questions arising in background investigations may be supported or negated by the results found in Rorschach examinations.

⁴⁶Thomas W. Oglesby, "The Use of Emotional Screening in the Selection of Police Applicants," Public Personnel Review 20:191-196, 1959.

Thematic Apperception Test (Projective Technique)

In contrast to the inkblot technique found in Rorschach, the Thematic Apperception Test (TAT) presents more highly structured stimuli and requires more complex and meaningful responses. The test consists of twenty pictures and the subject is asked to make up a story about each picture. In doing so, the examiner hopes that a meaningful story of drives, conflicts, relationships, etc., will be projected. As in Rorschach, initial testing and validity studies were accomplished with mental patients.

In interpreting TAT stories, the examiner analyzes the content of the responses in reference to a list of "needs" and "press." Being attacked, criticized by another, comforted or exposed to physical danger are illustrations of press.⁴⁷ In assessing "need" or "press," special attention is given to the intensity, duration and frequency of its occurrence in different stories, as well as to the uniqueness of its association with a given picture. The assumption is made that unusual material, which departs from the common responses to a picture, is more likely to have significance for the individual.

A fair amount of normative information has been published regarding the most frequent response characteristics for each picture. Although the normative data provides a general

⁴⁷Anastasi, op. cit., pp. 452-454.

framework for interpreting individual responses, most clinicians rely heavily on "subjective norms" or professional judgments built up through their own experience with the test.⁴⁸ A number of quantitative scoring schemes and rating scales have been developed that yield good scorer reliability. However, since their application is time-consuming, such scoring procedures are seldom used in clinical practice.

Disadvantages lie in several areas. Due to a problem with normative data supply, validity and reliability are sometimes questionable. The method of administering the test varies significantly with the techniques of the examiner. Added to this is a problem of separating basic personality from cultural stereotypes and temporary superficiality. The last disadvantage may be attributable to the different concepts of personality held by TAT clinicians.

Advantages in the use of TAT are most readily seen when administered by the highly skilled specialist. Despite a validity problem, it frequently reveals information of much value in the appraisal of the individual applicant. While the normative data supply continues to hinder results somewhat, it is growing all the time making the use of TAT more and more desirable in the police selection process.

⁴⁸Ibid.

Sentence Completion Tests (Projective Technique)

Unlike the incomplete sentences sometimes used to assess verbal aptitude, those utilized in projective techniques permit highly varied completions. Generally only opening words or sentence stems are provided, the respondent being required to write the ending.

The sentence stems are frequently formulated so as to elicit responses relevant to the personality domain under investigation. Flexibility of the sentence completion technique represents one of its advantages for clinical purposes. Some standardized forms have been published for general application.

One of the better known examples is the Rotter Incomplete Sentences Blank. It consists of 40 sentence stems, the responses being rated on a seven-point scale according to the degree of adjustment or maladjustment indicated. With the use of normative data gathered on typical responses, fairly objective scoring is possible. Validation studies have been encouraging and the test shows promise.⁴⁹

The disadvantage of using many of the incomplete sentence tests is the lack of normative data for police selection use. However, increased trial usage would provide the normative data needed for a test that appears to have much value when applied to other psychological evaluations.

⁴⁹Anastasi, op. cit., p. 507.

Polygraph Examination

This method of selection employs a precision instrument to measure physiological processes of the human body such as heart beat, breathing and muscular contraction. These body processes are usually recorded side by side on a line graph. Responses are obtained by asking the subject structured questions during an interview. The examination is primarily used as the basis for a technique of diagnosing deception based on psychological reactions which cause physical changes in the body of the subject.⁵⁰

The disadvantages rest in part with the requirement for a trained and skilled polygraph examiner. To complicate this area, there are yet no recognized professional standards for many polygraph examiners, so matters of test protocol and scientific objectiveness are presently unassessable. The result is that there is little compiled data to support validity. Use of the polygraph requires permission from the individual being tested and that he be free from the effects of alcohol, drugs and certain personality disorders.

In a sense, the instrument is sensitive to personality disorders but it is not selective of traits. This limits the instrument to the detection of deception. A growing disadvantage is the rise of popular opinion opposing the use of the instrument as an unfair invasion of privacy. While this

⁵⁰F.E. Inbau and J.E. Reid, Lie Detection and Interrogation, Third Edition (Baltimore, Maryland: Williams and Watkins Company, 1953), p. 5.

seems to be no more valid for polygraph than it is for any other test involving psychosomatic projections, it hosts a real drawback at this point in time.

The advantages of polygraph examination are that almost every police department has access to a polygraph. The validity data that is available supports a contention that, while closely tied to the efficiency of the operator, validity in detecting deception is high.

Dr. William E. Barber, Associate Professor of Psychology and Law Enforcement, Delta College, University Center, Michigan, states: "... the author knows of no known psychological technique that has demonstrated the ability to gain the information necessary for proper police applicant evaluation, than polygraph screening has demonstrated here and elsewhere. Obtaining the best man for the job has always been the ultimate goal and it is felt that the polygraph technique has come a long way in achieving that goal."⁵¹

Intelligence Tests

Assessment of intelligence may be an extremely important aspect of the police selection process. The complex nature of the officer's job, the requirements that extensive specialized knowledge be assimilated and properly applied, and the fact that officers must undergo some type of continuous formal

⁵¹William E. Barber, "Polygraph Screening of Police Applicants," a paper presented to the IACP North Central Region Conference, June 20, 1967.

or informal training to meet the challenges of a changing job environment all point to the need for some minimum intelligence requirement. The International Association of Chiefs of Police have recommended a minimum intelligence quotient of 100 for police recruits.⁵²

To the layman, intelligence or IQ is not identified with a particular type of score on a particular test, but is often a shorthand designation for any type of general intellectual ability. Intelligence characteristically designates that combination of abilities required for survival or advancement within a particular culture or subculture.⁵³ It has been observed that the nature and relative weights of these abilities differ among cultural groups and undergo change in the course of the individual's lifetime.

Several basic concepts about intelligence should be understood prior to describing any test of intelligence. IQ should be regarded as descriptive rather than an explanatory concept. An IQ is an expression of an individual's ability level at a given point in time in relation to his age norms. No intelligence test can indicate the reasons for his performance.

Secondly, the IQ is not fixed and unchanging; it is amenable to modification by environmental interventions. An individual's intelligence at any one point in time is the end

⁵²Anastasi, op. cit., p. 293.

⁵³Bernard E. Grady, "IQ Tests, The New Castle County Experience," The Police Chief, 40:No. 2, Feb. 1973, p. 67.

product of a vast and complex sequence of interactions between hereditary and environmental factors. Evidence of change comes from a variety of investigations dealing with the effects of education, special training programs and major environmental changes.⁵⁴

Still another characteristic of intelligence is that it is not a single unitary ability, but a composite of several functions. The term is commonly used to cover that combination of abilities required for survival and advancement. It follows that the specific abilities included in this composite, as well as their relative weights, will vary with time and place.⁵⁵

One of the major advantages of using intelligence testing as part of the overall selection process is the fact that the major intelligence tests have had much research, are well standardized and enjoy a reputation of high reliability and validity. Since their use and application has been quite widely accepted, there follows only a short descriptive section on two of the more well known and widely used intelligence tests -- the Wechsler Adult Intelligence Scale and the Otis Quick Scoring Mental Ability Test.

⁵⁴Anastasi, op. cit., p. 211.

⁵⁵Ibid.

Wechsler Adult Intelligence Scale (Intelligence Test)

The Wechsler (WAIS) yields a single IQ score based upon eleven subtests. The WAIS is administered individually and helps eliminate the possibility of respondent error by providing the examiner with an opportunity to directly observe testing responses. The test has well established normative data and is described as a reliable and valid instrument when used by a trained examiner. Due to the fact that the test measures both verbal and performance components of intelligence through the eleven subtests, and that it is individually administered, it is felt that this test is less susceptible to cultural bias.

The disadvantages of using the WAIS deal with cost of individual administration and having the time available to run separate tests on large groups of persons. Interpretation of test responses require the services of a person well trained in its administration and scoring.

Otis Quick Scoring Mental Ability Test

The Otis also yields a single IQ score based upon a series of multiple choice questions. The test is self-administered and can be given to large groups of persons at one time. It requires little time to take and is rapidly scored. Its reliability and validity compares favorably with other self-administered non-language tests. It is more susceptible to cultural bias than the WAIS for several reasons -- group administration does not allow for close individual

monitoring of the actual test responses, and the Otis does not probe such components of intelligence as memory and abstract thinking. It is a good basic screening device and the revised Gamma form of the examination has been shown to successfully alleviate cultural or minority bias in police selection use.⁵⁶

Background Investigation

Since there is so much general information available about background investigation as a selection technique, the authors feel it unnecessary to provide a lengthy description or explanation of its use. There are, however, several comments worth noting about the use of background investigation and its relevance to the total selection process. It is a traditional tool, used for many years by police administrators without too much thought or evaluation.

The background investigation may be valuable as a device to substantiate information gleaned from other selection methods. Use of carefully prepared applicant background forms and well selected psychological examinations should provide a basis for determining the areas to be probed by traditional applicant background investigations.

Distinct drawbacks to background investigation as a selection device can be readily identified. Background investigations are often inaccurate summarizations of indirect and

⁵⁶Grady, op. cit.

often non-factual information. No two investigators ever investigate or report in the same fashion. The more investigators involved, the more chance there is for a variety of personal bias and prejudice. Background investigations are time-consuming and expensive when compared to other selection methods, and their cost-benefit may be appreciably lower than other methods.

Many background investigators report back to their respective employers with one of two types of information. First and most frequently, information gleaned by the investigator contains little if any derogatory remarks about the applicant. References often find it hard to say anything harsh or degrading about the person applying for a job. Secondly, the investigator may return with information that is particularly derogatory of the applicant from one or two references. It then becomes a real problem to ascertain whether the information is true or false and whether or not the reference is reliable.

Many times the records checked by investigators are in error. Credit, education, medical, employment, etc., have been found to contain errors, be incomplete or "lost" somewhere. The sum total of the effort results in investigators having to depend on other sources for their information, take the information at face value with little way of evaluating it, and believe it to be the truth.

The distinct advantage to conducting a background investigation is in substantiating carefully defined questionable areas that have been exposed or left undetected by other selection methods. Used in this manner, the expensive and time-consuming background investigation can be channeled into the most productive fields. Training for background investigators should be provided to insure uniformity in both collection and analysis of the information found. Further, the background investigation may be more valuable if used as part of the total process, rather than being seen as a separate entity.

When one takes this chapter as a whole, he can see the slowly emerging "state-of-the-art" that is coming to the surface in police selection. Presently it may be possible to state that success in effective police selection is attainable.

Summary

In summarizing the literature, we are taking the pros and cons of the various methods utilized in these studies. The overall picture is one of lacking standardization and validity. The best that can be said is that all the methods have shown themselves to be effective for that particular time and location and under the circumstances quoted.

What the results would be, if these programs were exchanged or parts adapted to other programs, can only be explained as possibly at this point pure conjecture on the part of the authors.

Recruiting

Numerous problems in recruiting qualified police personnel arise due to the complexity of the job the police officer addresses himself to. Several studies have shown that perhaps recruitment in itself is not a difficult task. The problem seems to lie in enlisting competent men who are motivated, who possess the desired personality traits and the other requisites demanded by those who serve the public.

For as yet undetermined reasons, many undesirables are attracted to the police field of employment. This theory is supported by a study undertaken by a team headed by Richard Blum. This team studied a group of applicants, each desiring a position as deputy sheriff in San Mateo County, California. The results of Blum's survey indicated that under the conditions specified, 44 percent of the candidates showed test evidence of character defects and that important negative information was developed in the background investigation of 54 percent of those who applied.⁵⁷ Of 760 persons tested by the Los Angeles Police Department for personality disorders between 1953 and 1957, 86 or 11.3 percent were rejected as not meeting acceptable standards.⁵⁸

⁵⁷R.H. Blum, "A Further Study of Deputy Sheriff Selection Procedures," Police, 6:77-79, 1962.

⁵⁸Task Force Report: The Police, op. cit., p. 129.

Blum's study, the Los Angeles findings on undesirable character traits in police applicants and the reports from the President's Commission, only scratch the surface. Problems in recruitment and validation of the widely varied psychological/psychiatric programs that appear to be employed by a number of United States police departments helps point out the importance of gathering acceptable scientific evidence on the value of employing psychological selection instruments or methods.

Assessment of the emotional stability of police applicants is beginning to receive a great amount of attention. Coupled with the interest expressed in emotional stability is an increased interest in probing many areas of mental health, maturity and intelligence of police recruits. It appears quite possible that many police applicants have mental disabilities that might prevent them from becoming competent officers. The President's Commission expressed this point of view stating, "Emotional stability to withstand the stresses of police work must, of necessity, be a prerequisite of police personnel." The Commission further stated, "For this reason, several departments conduct psychological and psychiatric examinations."⁵⁹

⁵⁹Ibid.

Distinction Between Psychological and Psychiatric Examinations

At this point, it may be beneficial to make the distinction between psychological and psychiatric examinations. As stated earlier, the mental health literature of the 20's, 30's and 40's made little distinction between psychiatric and psychological examinations in reference to police selection. With increased recognition of psychology as a profession in the late 40's, came the clear distinction drawn between a "psychiatric examination" and a "psychological examination." While many laymen may still use the terms interchangeably, there is a distinct and definite dividing line between the two approaches to total personality assessment.

Psychiatric examination consists of the various medical techniques employed in diagnosing and evaluating mental and emotional health. In police selection, it usually involves the screening of candidates by interviews and professional consideration of the applicant's background, early emotional traumas, stresses, adaption to society, motivations, current attitudes and factors that may have adversely influenced the results of a psychological test.⁶⁰

Psychological examination consists of administering any one of a number of standardized and/or recognized tests. Based upon professional evaluation of test results, an opinion is drawn as to whether or not an applicant possesses the traits

⁶⁰J.H. Rankin, "Psychiatric Screening of Police Recruits," Public Personnel Review, 20:191-196, July 1959.

desired for police service. The major distinction between psychological and psychiatric examinations then becomes the means employed to reach a professional judgment about the applicant's personality and whether or not that total personality structure being examined is within acceptable limits for police service.

Definition of the psychological test varies from author to author, but F.S. Freeman, a noted clinical psychologist, uses a widely accepted definition of, "The broad category of standardized instruments which are designed for the objective measurement of one or more aspects of total personality by means of samples of performance or behavior."⁶¹ Testing procedures are usually considered as psychological evaluation, while the interview technique is employed by the psychiatrist. It is not uncommon to find psychologists interviewing applicants based on observed test results, or psychiatrists in some instances administering psychological tests on a limited basis as a foundation for interviewing.

Personality Structures

It appears that one of the major problems that psychological evaluation should address itself to is the analysis of total personality structures, being particularly alert to an analysis of personality traits, sorting out the traits

⁶¹F.S. Freeman, Theory and Practice of Psychological Testing (New York: Holt Company, 1955), p. 1.

deemed undesirable for police service. This has been one of the major obstacles to overcome. The American Psychiatric Association, in its diagnostic manual, has attempted with some degree of success to standardize and classify personality disorders. This listing would certainly approach a basic guideline for selecting those traits deemed undesirable for police candidates.

Intelligence

Intelligence as part of the total personality structure should play an integral role in the police selection process. Due to the ambiguous nature of police work and the complexity of the job, it seems logical to assume that police applicants should have some minimum intelligence in order to comprehend the vast amount of training now required by many police agencies and be able to apply it to their job environment.

The value of basic intelligence tests lies in their standardization and the success with which they have been validated.

Job Description and Task Analysis

A second major obstacle to the employment of psychological evaluation of police applicants is the lack of adequate job descriptions and task analysis for the job to be filled. What is needed is an adequate psychological assessment of police job qualifications followed by a correlation to police job performance. Only one major study could be found in this

area, LEAA Project 046 -- Psychological Assessment of Patrolman Qualifications in Relation to Field Performance -- conducted in 1968 within the Chicago, Illinois, Police Department.

An inherent drawback to using only one study, such as the Chicago assessment of patrolman qualifications, is what may be a requisite trait desired in Chicago may not be an appropriate trait for patrolman in other police departments. Certainly some traits apply to all police candidates, but much research is needed on local levels to produce adequate job descriptions and task analyses.

Keeping in mind the two basic obstacles to employment of psychological evaluations, as applied to police selection, defining desirable and undesirable personality traits and the lack of adequate job descriptions and task analyses, many psychological and quasi-psychological methods for screening out undesirable candidates have been tried and are still in use. Until such time as extensive research on police requirement is completed and tests for differentiating and identifying those undesirable traits can be found, developed and validated, police officials must work with the material and information available. A review of some of the current traditional and psychological methods employed by police agencies shows varying degrees of success.

Because there is such a wide variety of selection methods available, both psychological and non-psychological, currently being employed by many police departments for selecting

desirable candidates, the authors feel that a brief representative view of those methods is of value to this study. The value of that review lies in providing a screen against which the techniques used in the Pittsburgh Psychological Selection Program can be projected and evaluated.

This representative review of the selection methods commonly employed, both psychological and non-psychological in nature, will help in not only determining the complexity of the selection problem, but should also provide some information on what selection methods are being used currently and their advantages and disadvantages.

The personal interview and rating scales are time honored selection methods used by some police executives who hold that they are able to assess personality characteristics with them. More sophisticated psychological efforts in the form of the Minnesota Multiphasic Personality Inventory, the Guilford-Zimmerman Temperament Survey and the Edwards Personal Preference Scale show possibilities for improvement over interviews and rating scales. A brief review of two well known projective techniques -- the Rorschach Sentence Completion and the Thematic Apperception Test -- show how psychologists who are properly trained may be able to better predict personality and behavior.

Review shows the use of polygraph to be controversial, but finding various degrees of success in some areas and fairly wide acceptance in others. A review of the Wechsler Adult

Intelligence Scale and the Otis Quick Scoring Mental Ability Test provides a brief look at the relevance and success of intelligence measurement. Background investigations have been used to help select candidates for police service almost since the beginning of modern police history. A brief review of their relevance and value is also contained in this review.

CHAPTER III

RESEARCH

Introduction

In the preceding chapter a review of the literature was presented. In this chapter the design and methodology of the research is presented. This research was designed to determine the correlation between predictor variables and police behavior in the Pittsburgh Police Department.

In 1970 the authors were informed by Mr. Eugene Cease, a clinical psychologist in Pennsylvania and father of one of the authors, that a psychological police selection program had been conducted in Pittsburgh, Pennsylvania. At this time contact was established with Dr. Russell H. Scott, designer and director of the Pittsburgh program, concerning its results and an initial study of the program was conducted. It was learned at this time that a correlation and validity study had not yet been conducted.

In 1972 the authors again contacted Dr. Scott and presented him with a proposal to conduct a study to ascertain the correlation and validity of the Pittsburgh psychological selection program. The authors were invited to Pittsburgh to discuss the proposal with Dr. Scott, the superintendent of police and the city of Pittsburgh Civil Service Commission.

The results of these meetings were that the psychologist felt that the proposed study would be beneficial and would measure the success of the program. The superintendent of police was in agreement and would allow the researchers the freedom to utilize all personnel records available for use in this study. The Civil Service Commission agreed that the study would be beneficial but would not allow the researchers the privilege of searching the civil service files for applications and test score results without obtaining an amendment to city ordinance or a court order.

The researchers decided, along with the advice of the psychologist, to continue with the study. The loss of civil service records was felt to cause little, if any, concern as a previous study in New York City by the Rand Institute indicated that these type test results indicated only that the individual could take a test and pass it, but did not correlate with police performance. The Pittsburgh Police Department application forms were learned to be the same as the civil service forms, thus nothing would be lost in this area of the study.

Definition of the Universe

For the purposes of this study, the sample will be 150 officers of the Pittsburgh Police Department.

Description of Environment Studied
Method of Sampling

This study does not use the random selection method, instead it is quasi-random in that the researchers utilized the last 75 officers selected prior to the psychological selection program, and the first 75 officers selected under the psychological selection program. This should help control the variables of changing times and conditions by keeping the observations in as close a time frame as possible. This would be in answer to the type of person applying for the job of patrolman both before and after the riots experienced in Pittsburgh.

The researchers had no way of knowing what behavior or selection information was contained in the personnel records concerning the officers selected to be studied.

The Pittsburgh Police Department Personnel Records Section had no prior knowledge of which officers would be studied, thus they could not alter any of the records to be used.

Prior to asking the psychologist for any and all test results available, he had no way of knowing which officers the researchers would be studying. This controlled the possibility of any false or erroneous data being included in the study.

The size of the sample should be large enough to adequately study the police department and explain the stated hypothesis.

Collection of Data

The researchers first obtained copies of the applicant investigative report used by the Pittsburgh Police Department (see Appendix B). The data code to be used in the analysis of the data was then constructed (see Appendix C). The data collection forms were constructed for use during the data collection at Pittsburgh (see Appendix D).

The information contained in set #1 of the applicant investigative report was similar to the prior application form utilized by the Pittsburgh Police Department. The major difference was that the new applicant investigative report was more comprehensive.

The Pittsburgh Police Department was requested to furnish the researchers with the names of the last 75 men selected prior to the psychological selection program and the names of the first 75 men selected under the psychological selection program. These groups will now be referred to as Group 1 and Group 2, respectively.

At this time the psychologist advised that changes were made in 1966 that affected the final selection program and that from then on there were no changes to the selection program. It was felt that this period would be of little value to study at this time as the study is concerned with the final program as a whole.

The two groups were separated as follows:

Group 1: 75 officers selected from the months of September and October, 1965, to consist of those officers selected prior to the psychological selection program.

Group 2: 75 officers selected from the months of April and September, 1967, and February, 1968, to consist of those officers selected under the psychological selection program.

This would allow for records and longevity of at least 7 years for Group 1 and 5-6 years for Group 2 to be studied.

The researchers commenced by studying the records and coding the information over a 6-day period of time. The fifth day was spent recording the test results maintained in the offices of the psychologist.

Choice and Definition of Variables Utilized

Realizing that the researchers had collected a great amount of data, the decision had to be made as to which variables could be efficiently used in the study. Based upon the records available in the Pittsburgh personnel files, the first step became a matter of listing those behavior variables available and finalizing a definition of them as they pertain and are used in this study.

Longevity. The length of time that an officer spends with the department. This indicates his motivation to be a police officer and his adaptability to the job. The longer he stays on the job, the more motivated he is to be a police officer. The shorter the officer stays on the job, indicates less motivation to be a police officer.

Disciplinary Action. The amount of disciplinary problems exhibited by the officer. These were broken down into, initiated but uncompleted, due to lack of information or erroneous charges. This indicates a possible attitude problem. Initiated and completed, with some form of action taken against the officer. This indicates an attitude problem on the part of the officer towards the public and/or the laws and department rules regulating the officer's function as a police officer. Violations of departmental rules and regulations which result in action of some form taken against the officer. This indicates the officer's attitude toward the department and/or the environment of his employment.

Accidents. These being the avoidable and unavoidable occurrences causing damage or injury. Accidents were further classified as: automotive, indicating lack of attention or over-aggressive action on the part of the

officer while operating the patrol vehicle; or totally unavoidable. Personal accidents are those accidents which result in injury to the officer while in the performance of official duties and can be either injuries resulting in lost time or mere medical attention and return to duty, which indicates a hostile, aggressive officer or one who is unable to properly handle himself and prevent injury or those unavoidable occurrences.

Lost Time. The total amount of time lost from the job resulting from either disciplinary action or accidents. The more time lost indicates an officer who is involved with serious discipline problems or injuries further substantiating his attitude toward his role as a police officer. The less lost time indicates his attitude as being positive toward the job and his ability to handle himself in altercations.

Education Change. Taking college or high school courses to upgrade himself scholastically or professionally and/or courses limited to the police field only to improve his capabilities as an officer in either general fields or specialized fields. The more the education change exhibited, the more positive the officer is towards his job as a policeman. The less the amount of education change indicates a feeling of

satisfaction, at the present level, towards his job or lack of motivation.

Commendations. Departmental commendations for service above the call of duty; departmental commendations for service under dangerous or unusual circumstances; letters of commendation from public and private clubs or organizations for public services; letters of commendation from private citizens for services performed and letters of recognition for services rendered to the community as a whole. These indicate a positive attitude toward the job and the ability to handle situations beyond the expected job requirements further indicating the officer's positive attitude toward the employment environment.

The above are the behaviors the authors believe to be indicative of a desirable police officer. The next step was selecting the variables that are predictive of the desired behaviors. The following are the predictor variables selected. The first list will include those predictor variables common to both the psychological group and the non-psychological group.

Marital Status. Identifies whether the officer is married, divorced, single, separated or widowed.

Military Service. Indicates whether or not the officer was in the armed forces; does not identify which branch of

the military he served in.

Drinks. Indicates whether or not the officer drinks alcoholic beverages.

Frequency of Consumption. Indicates the frequency with which an officer drinks; i.e., monthly.

Criminal Record. Indicates only if the officer had any form of criminal record; includes traffic offenses.

Type of Record. Indicates whether the offense was a felony or a misdemeanor; traffic or juvenile.

Convicted. Indicates only whether the officer was found guilty; does not show penalty imposed.

Type of Charge. Breaks down felony into divisions of homicide, burglary, vice, etc. Also misdemeanor breakdown and traffic.

Number of Charges. Total number irrespective of type of charge.

Accident Involvements. Reports involvement in automobile accidents; does not indicate whether accident was property damage, personal injury or fatal.

At Fault. Identifies whether the officer was the responsible driver or not.

Number of Times. The number of accidents the officer was involved in; includes both at-fault and not-at-fault.

Education. Indicates the educational achievement of the officer; i.e., high school graduate, college or trade school.

Number of Previous Jobs. Number of jobs held by the officer prior to becoming a police officer.

The above variables were common to both groups and were obtained from the officer's personnel file. It should be noted that the behavior variables were those incidents registered after the officer was a working police officer. The rest of the above data came from the officer's employment application and the background investigation.

The next list is information contained in the records of the officer but is only for those in the psychological group. The scale is referred to as a "rating scale." It was obtained by the officer conducting the background investigation and scale scores were derived from an interview with the officer-applicant. It is based upon the interviewer's personal decision of whether he thinks the interviewee will make a good police officer. The interviewers were experienced police officers and had assignments in the Internal Affairs Division or had assignment as patrol supervisor. Further, the interviewers were trained by Dr. Scott in the use of the

rating instrument. As such, they were accepted as authorities on whether a man would make a good, poor or average police officer. The rating instrument has ten (10) scales, which are listed below (reference Appendix B):

Appearance of Applicant. Whether the applicant was neat in appearance.

Physical Condition. Whether the applicant has the physical appearance that indicates strength or agility.

Use of Language. Whether the applicant can communicate effectively or not.

Cooperation of Applicant. Whether the applicant cooperates freely in answering questions.

General Appearance of Home. The condition of cleanliness of the applicant's home.

Opinion of Truth. Whether the applicant answers questions honestly.

Hesitant or Avoiding. Whether applicant avoids or hesitates in answering questions of the interviewer.

Not Telling Truth or Attempts to Conceal.

Whether the applicant attempts to conceal or lie about facts known to the interviewer.

Prior Acquaintance. Whether the interviewer knew the applicant before his application for employment with the police department.

Opinion Scale. The interviewer's opinion on whether the applicant would make a good or bad policeman.

The last list consists of the personality inventory, scales and their scores obtained by the applicant for the Minnesota Multi-Phasic Personality Inventory and the Otis Quick Scoring Mental Ability Test.

The Minnesota Multi-Phasic Personality Inventory consists of 13 scales which are broken into two groupings: Control Scales and MMPI Clinical Scales.

MMPI Control Scales¹

1. (L) Lie
2. (K) Defensiveness and bias.
3. (F) Carelessness and confusion in taking test.

¹W.G. Dahlstrom and G.S. Welsh, An MMPI Handbook. University of Minnesota Press, 1960.

MMPI Clinical Scales

1. (Hs) Hypochondriosis -- exaggerated anxiety about one's health and pessimistic interpretations and exaggerations of minor symptoms.
2. (D) Depression -- feelings of pessimism, worthlessness, hopelessness.
3. (Hy) Hysteria -- various ailments such as headaches and paralysis which have no physical basis.
4. (Pd) Psychopathic Deviate -- antisocial and amoral conduct.
5. (Mf) Masculinity-Femininity -- measure of masculine and feminine interests; especially a measure of feminine values and emotional expression in men.
6. (Pa) Paranoia -- extreme suspiciousness of other people's motives, frequently resulting in elaborate beliefs that certain people are plotting against one.
7. (Pt) Psychasthenia -- irrational thoughts that recur and/or strong compulsions to repeat seemingly meaningless acts.
8. (Sc) Schizophrenia -- withdrawal into a private world of one's own, often accompanied by hallucinations and bizarre behavior.
9. (Ma) Hypomania -- mild elation and excitement without any clear reason.

10. (Si) Social Introversion -- avoidance of other people and removal of oneself from social contacts.

For a detailed description of the scale scores and their meanings, refer to Appendix A.

As was previously discussed in Chapter I, the psychologist established occupational normative data based on a group of police officers employed by the Pittsburgh Police Department.

The occupational norms established by the psychologist on this group of police officers, which had been identified as good, average and poor police officers through a supervision rating technique, were used in evaluating the MMPI scores attained by applicants processed through the Pittsburgh psychological selection program.

The researchers accepted, at face value, the police occupational norms established by the psychologist through his study. These occupational norms fall within the overall range of accepted scores in any given clinical sub-scale.

The Otis Quick Scoring Mental Ability Test was the basic intelligence screening instrument used. The Otis yields a single numerical score representing the intelligence

quotient. The minimum acceptable score in Pittsburgh was 90. Those falling below 90 were administered the Wechsler Adult Intelligence Scale; a minimum score of 90 had to be attained on the WAIS.

The psychologist reported that a WAIS was rarely needed or administered. In those isolated instances the researchers found a WAIS had been administered, the applicant was assigned an Otis score of 90.

Analysis of Collected Data

The researchers transcribed the coded variables onto IBM key punch forms. These forms have 80 available columns for data purposes. Appendix E indicates the key punch column and the variable associated with that column.

The IBM cards were then key punched and verified for accuracy. These key punch cards were then assembled for use in the CISSR program. This program is designed to correlate each variable identified against every other variable in the study and produce means and standard deviations. The program utilizes the Pearson product moment correlation coefficient (Pearson r).

The Pearson r represents the extent to which the same individuals or events occupy the same relative position on two variables.² No matter what correlational technique we use, all have certain characteristics in common:

1. Two sets of measurements are obtained on the same individuals (or events) or on pairs of individuals who are matched on some basis.
2. The values of the correlation coefficient vary between +1.00 and -1.00. Both of these extremes represent perfect relationships between the variables and 0.00 represents the absence of a relationship.
3. A positive relationship means that individuals obtaining high scores on one variable tend to obtain high scores on a second variable. The converse is also true; i.e., individuals scoring low on one variable tend to score low on a second variable.
4. A negative relationship means that individuals scoring low on one variable tend to score high on a second variable. Conversely, individuals scoring high on one variable tend to score low on a second variable.³

² Audrey Haber and Richard P. Runyon, General Statistics, Addison-Wesley Publishing Company, Reading, Massachusetts. Second printing, 1971, p. 110.

³ Ibid., p. 109.

The Pearson r was utilized because the size of the population numbered over 30. The data collected was not rank ordered and there were tied scores on test instruments.

Utilizing the proper computer program formats, the data was introduced into the Michigan State University computer for analysis of the data.

The Pearson r is expressed in numeric fashion ranging from +1.00 to -1.00. The critical value of these ranges is expressed in significance levels. A significance level is an expression of probability, indicating the percentage of chance occurrence of your relationship; i.e., if you have a significance level of .05, then there is a 5 percent chance occurrence or 95% of the time your relationship is not due to chance.

For the purposes of this study, the researchers utilized the following established levels of significance for three critical values of the Pearson r :⁴

<u>Pearson's r for 150 observations</u>	<u>Significance Level</u>
.19	.05
.25	.01
.32	.001

⁴ John G. Peatman, Introduction to Applied Statistics, Harper & Row Publishers, New York, 1963, p. 406.

<u>Pearson's r for 75 observations</u>	<u>Significance Level</u>
.23	.05
.30	.01
.38	.001

Due to the fact that the MMPI and Otis are standardized psychological instruments, the researchers felt it necessary to check the mean and standard deviations to ascertain if the scores fall within the standard normal distribution. For this reason the mean standard deviation and standard normal distribution are explained below.

Mean: Sum of the scores or values of a variable divided by their number.⁵ This yields the average score obtained on a test.

Standard Deviation: The more compactly our scores are distributed about the mean, the smaller our errors will be in prediction on the average. Since the standard deviation reflects the dispersion of scores, it becomes, in a sense, an estimate of error.⁶

Standard Normal Distribution: Essentially, the curve indicates that the number of cases cluster in the center of the (Normal Curve) range and the number drops off gradually in

⁵Haber and Runyon, op. cit., p. 68.

⁶Ibid., p. 102.

both directions as the extremes are approached. The curve is bilaterally symmetrical, with a single peak in the center. Most distributions of human traits, from height and weight to aptitudes and personality characteristics, approximate the normal curve. In general, the larger the group, the more closely will the distribution resemble the theoretical normal curve.⁸

Summary

In this chapter the method of selecting the site, the sample and method of collecting the data were presented. Also, the chapter contains definitions of variables, statistical concepts and method of analyzing the data collected and utilized in this study.

Chapter V contains the analysis of this data.

⁸Psychological Testing, op. cit., p. 42.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

In the preceding chapter the design and methodology of the study were presented. In this chapter the analysis of the data is discussed. The chapter was divided into nine tables to delimit the various variables as they correlate with one another. The tables are further broken into three categories: (1) psychological and non-psychological combined; (2) psychological; and (3) non-psychological.

This study is concerned only with the predictive validity of the variables utilized. It does not develop a profile of a good, average or poor police officer.

Interpretation of Insignificant Data

In the non-psychological group, the analysis of all the variables studied found that there were seven variables that were found to have no correlations with any other variable.

These were:

12. Number of times involved in auto accidents.
13. Level of education attained prior to employment.
14. Number of previous jobs held .

Disciplinary action:

16. Initiated uncompleted.

Disciplinary action:

17. Initiated completed.
21. Lost time on job.
22. Education change while employed as police officer.

The analysis indicated that the relationship was a result of chance occurrence and therefore possesses no predictive validity; thus not meeting the specifications set forth in Chapter III of this study. The range of specifications was at least significant at the .05 level of significance. This finding substantiates the hypothesis that non-psychological selection is not predictive of some types of police behavior.

In the psychological group, the analysis of all the variables studied found that thirty-eight variables were found to have no correlations with any other variable. These were:

1. Marital status.
5. Criminal record.
6. Type of record.
7. Convicted.
8. Type of charge.
9. Number of charges.
10. Accident involvement.
11. At fault,
12. Number of times.
13. Appearance of applicant.
14. Physical condition.
15. Use of language.
16. Cooperation of applicant.

17. General appearance of home.
18. Opinion of truth.
19. Hesitant or avoiding.
20. Not telling truth or attempts to conceal.
21. Prior acquaintance.
22. Opinion scale.
23. Education.
24. Number of previous jobs.
25. F scale -- validity score.
28. Hs. scale -- hypochondriasis.
30. D. scale -- depression.
31. Hy. scale -- hysteria.
32. Pd. scale -- psychopathic deviate.
33. Pd. scale -- psychopathic deviate.
34. Mf. scale -- masculinity-femininity.
35. Pa. scale -- paranoia.
36. Pt. scale -- psychasthenia.
38. Sc. scale -- schizophrenia.
39. Sc scale -- schizophrenia.
40. Ma. scale -- hypomania.
41. Ma scale -- hypomania.
- Disciplinary action:
45. Initiated uncompleted.
46. Initiated completed.
49. Accidents -- personal.
52. Commendations.

The analysis indicated that the relationship was a result of chance occurrence and therefore possesses no predictive validity, thus not meeting the specifications set forth in Chapter III. The range of specifications was at least significant at the .05 level of significance. This finding does not support the hypothesis that psychological selection is predictive of some types of police behavior.

In the combined data group, the analysis of all the variables studied found that eight variables were found to have no correlations with any other variable. These were:

- 10. Accident involvement.
- 24. Number of previous jobs.
- Disciplinary action:
- 45. Initiated uncompleted.
- 46. Initiated completed.
- 48. Automotive accidents.
- 49. Personal accidents.
- 50. Lost time.
- 52. Commendations.

The analysis indicated that the relationship was a result of chance occurrence and therefore possesses no predictive validity, thus not meeting the specifications set forth in Chapter III of this study. The range of specifications was at least significant at the .05 level of significance. This finding does not support the hypothesis that psychological selection is predictive of some types of police behavior.

Interpretation of Significant Data

In the non-psychological group, the analysis of all the variables studied found that five behavior variables were correlated significantly with eleven predictor variables. These variables were:

<u>Behavior Variable</u>	<u>Predictor Variable</u>
15. Longevity.	1. Marital status.
18. Departmental rules and regulations.	2. Military service.
19. Automotive accidents.	3. Drinks.
20. Personal accidents.	4. Frequency of consumption.
23. Commendations.	5. Criminal record.
	6. Type of record.
	7. Convicted.
	8. Type of charge.
	9. Number of charges.
	10. Accident involvement.
	11. At fault.

The analysis indicated that the relationship was not the result of chance occurrence and therefore possesses predictive validity, thus meeting the specifications set forth in Chapter III of this study. The range of specifications was at least at the .05 level of significance.

Table 1 gives each behavior variable correlated with each of the predictor variables. The following are three examples of correlations taken from Table 1.

1. Variable 15 (longevity) correlated with variable 2 (military service) with a Pearson r of .23 which indicates it to be significant at the .05 significance level. This intimates that an applicant who has military service would stay on the job longer than an applicant who did not have military service.
2. Variable 18 (departmental rules and regulations) correlated with variable 6 (type of record) with a Pearson r of .51 which indicates it to be significant at the .001 significance level. This intimates that an applicant who had more criminal involvement was more likely to have more violations of departmental rules and regulations than an applicant who did not have criminal involvement.
3. Variable 15 (longevity) correlated with variable 4 (frequency of consumption of alcohol) with a Pearson r of $-.36$ which indicates it to be significant at the .01 significance level. This intimates that an applicant who drinks less frequently stays on the job longer than an applicant who drinks more frequently.

The findings as exemplified above and in Table 1 do not substantiate the hypothesis that non-psychological selection is not predictive of some types of police behavior.

TABLE 1

NON-PSYCHOLOGICAL GROUP CRITICAL VALUES OF PEARSON'S r
CORRELATION COEFFICIENT FOR THREE ALPHA
SIGNIFICANCE LEVELS

		Predictor										
Behavior	Variable	1	2	3	4	5	6	7	8	9	10	11
	15		.23	.60	-.36	.38		.43			.39	.39
	18						.51		.70	.50		
	19	.30	.23									
	20										.27	.27
	23						.26		.27		.23	.23

r greater than .23 is significant at the .05 significance level.

r greater than .30 is significant at the .01 significance level.

r greater than .38 is significant at the .001 significance level for 70 degrees of freedom.

When using Tables 1 through 9, refer to Appendix E for description of each variable.

In the psychological group, the analysis of the variables studied found that five behavior variables were correlated significantly with nine predictor variables. These variables were:

<u>Behavior Variable</u>	<u>Predictor Variable</u>
44. Longevity.	2. Military service.
47. Departmental rules and regulations.	3. Drinks.
48. Automotive accidents.	4. Frequency of consumption.
50. Lost time.	25. Lie scale (MMPI).
51. Education change.	27. Correction scale (MMPI).
	29. Hypochondriasis (MMPI).
	37. Psychasthenia (MMPI).
	42. Social introversion (MMPI).
	43. Otis Quick Scoring Mental Ability Test.

The analysis of the psychological group indicated that the relationship was not the result of chance occurrence and therefore possesses predictive validity, thus meeting the specifications set forth in Chapter III of this study. The range of specifications was at least at the .05 level of significance.

Table 2 gives each behavior variable which correlated with each of the predictor variables. The following are two examples of correlations taken from Table 2.

1. Variable 51 (education change) correlated with variable 2 (military service) with a Pearson r

of $-.32$ which indicates it to be significant at the $.01$ significance level. This intimates that an applicant who has more military service will not necessarily have more education change, or one who has education change may not necessarily have military service.

2. Variable 47 (departmental rules and regulations) correlated with variable 4 (frequency of consumption) with a Pearson r of $.24$ which indicates it to be significant at the $.05$ significance level. This intimates that an applicant who drinks frequently is more likely to have infractions of departmental rules and regulations than an applicant who drinks less frequently.

Table 3 gives each behavior variable which correlated with each of the predictor variables. The following are two examples of correlations taken from Table 3.

1. Variable 44 (longevity) correlated with variable 29 (hypochondriasis scale) with a Pearson r of $-.26$ which indicates it to be significant at the $.05$ significance level. This intimates that an applicant who has a lower score than the mean on the hypochondriasis (K corrected score) will remain on the job longer than an applicant who has a higher score.

TABLE 2

PSYCHOLOGICAL GROUP CRITICAL VALUES OF PEARSON'S r
CORRELATION COEFFICIENT FOR THREE ALPHA
SIGNIFICANCE LEVELS

		Behavior			
Predictor	Variable	44	47	48	51
	2	-.32			
	3	-.44	.35	.26	
	4	.28	.24	-.26	

r greater than .23 is significant at the .05 significance level.
 r greater than .30 is significant at the .01 significance level.
 r greater than .38 is significant at the .001 significance level
 for 70 degrees of freedom.

TABLE 3

		Predictor					
Behavior	Variable	25	27	29	37	42	43
	44	-.35	-.27	-.26	-.35		
	48	.31					
	50						.23
	51					-.25	

2. Variable 48 (accidents -- automotive) correlated with variable 25 (lie scale) with a Pearson r of .31 which indicates it to be at the .01 significance level. This intimates that an applicant who has a low lie scale score would have fewer accidents than an applicant who has a high lie scale score.

The findings as exemplified above and in Table 2 and Table 3 substantiate the hypothesis that psychological selection is more predictive of some types of police behavior than non-psychological selection.

In the combined group, the analysis of the variables studied found that there were three behavior variables which correlated significantly with twenty-nine predictor variables. These variables were:

<u>Behavior Variables</u>	<u>Predictor Variables</u>
44. Longevity.	3. Drinks.
47. Departmental rules and regulations.	4. Frequency of consumption.
51. Education change.	7. Convicted.
	8. Type of change.
	10. Accident involvement.
	12. Number of times involved.
	13. Appearance of applicant.
	14. Physical condition.
	15. Use of language.

16. Cooperation of applicant.
17. General appearance of home.
19. Hesitant or avoiding.
20. Not telling the truth or attempts to conceal.
21. Prior acquaintance.
22. Opinion scale.
25. Lie scale.
27. Correction scale.
29. Hypochondriasis scale (K corrected).
30. Depression scale.
31. Hysteria.
32. Psychopathic deviate scale.
33. Psychopathic deviate scale (K corrected).
34. Masculinity-femininity scale.
35. Paranoia scale.
37. Psychasthenia scale (K corrected).
39. Schizophrenia scale (K corrected).
40. Hypomania scale.
41. Hypomania scale (K corrected).
43. Otis Quick Scoring Mental Ability Test.

The analysis of the combined groups indicated that the relationship was not the result of chance occurrence and therefore possesses predictive validity, thus meeting the

specifications set forth in Chapter III of this study. The range of specifications was at least at the .05 level of significance.

Table 4 gives each behavior variable which correlated with each of the predictor variables. The following are two examples of correlations taken from Table 4.

1. Variable 44 (longevity) correlated with variable 7 (convicted) with a Pearson r of .21 which indicates it to be significant at the .05 significance level. This intimates that an applicant who has more convictions will stay on the job longer than an applicant who has fewer convictions.
2. Variable 47 (departmental rules and regulations) correlated with variable 8 (type of charge) with a Pearson r of .21 which indicates it to be significant at the .05 significance level. This intimates that an applicant who has more automotive accidents prior to employment will have more infractions of departmental rules and regulations than the applicant who has fewer automotive accidents prior to employment.

Table 5 gives the correlation of variable 51 (education change) with each of the predictor variables from the background investigator's rating scale. The following is an example of the correlation taken from Table 5.

TABLE 4

PSYCHOLOGICAL AND NON-PSYCHOLOGICAL GROUP CRITICAL VALUES OF
 PEARSON'S r CORRELATION COEFFICIENT FOR
 THREE ALPHA SIGNIFICANCE LEVELS

Behavior	Predictor												
	Variable	1	2	3	4	5	6	7	8	9	10	11	12
	44			.28				.21			.21		
	47								.21				
	51			-.25	.28								.23

r greater than .19 is significant at the .05 significance level.

r greater than .25 is significant at the .01 significance level.

r greater than .32 is significant at the .001 significance level
 for 100 degrees of freedom.

1. Variable 51 (education change) correlated with variable 15 (use of language) with a Pearson r of .24 which indicates it to be significant at the .05 significance level. This intimates that an applicant who scores high on the use of language scale is more likely to have an education change than the applicant who scores low on the use of language scale.

Table 6 gives each behavior variable which correlated with each of the predictor variables. The following are two examples of correlations taken from Table 6.

1. Variable 44 (longevity) correlated with variable 25 (lie scale) with a Pearson r of -.22 which indicates it to be at the .05 significance level. This intimates that an applicant with a high lie scale score remains on the job a shorter period of time than the applicant who has a low lie scale score.
2. Variable 51 (education change) correlated with variable 43 (Otis IQ) with a Pearson r of .27 which indicates it to be significant at the .01 significance level. This intimates that an applicant with a high Otis Quick Scoring Mental Ability Test score is more likely to have an education change than an applicant with a low Otis Quick Scoring Mental Ability Test score.

TABLE 5

PSYCHOLOGICAL AND NON-PSYCHOLOGICAL GROUP CRITICAL VALUES OF
PEARSON'S r CORRELATION COEFFICIENT FOR
THREE ALPHA SIGNIFICANCE LEVELS

Behavior	Predictor									
	Variable	13	14	15	16	17	19	20	21	22
	51	.28	.23	.24	.21	.27	.23	.22	.21	.23

r greater than .19 is significant at the .05 significance level.

r greater than .25 is significant at the .01 significance level.

r greater than .32 is significant at the .001 significance level
for 100 degrees of freedom.

TABLE 6

Behavior	Predictor														
	Variable	25	27	29	30	31	32	33	34	35	37	39	40	41	43
	44	-.22													
	51	.27	.26	.25	.26	.28	.28	.26	.23	.27	.26	.27	.27	.27	

The findings as exemplified above and in Tables 4, 5 and 6 substantiate the hypothesis that psychological selection is more predictive of some types of police behavior than non-psychological selection.

Combined Group Correlations of Predictor Variables

In the analysis of the variables studied, it was found that in the combined psychological-non-psychological group there were correlations between predictor variables. This would be a method of checking truthfulness of responses on the background and application investigation.

Table 7 gives each variable on the MMPI and the Otis Quick Scoring Mental Ability Test as it correlated with various responses on the application form.

1. Variable 30 (depression scale) correlated with variable 3 (drinks) with a Pearson r of $-.78$ which indicates it to be at the .001 significance level. This intimates that an applicant with a low score on the depression scale is more likely to drink than an applicant with a high score on the depression scale.
2. Variable 30 (depression scale) correlated with variable 4 (frequency of consumption) with a Pearson r of $.78$ which indicates it to be at the .001 significance level. This intimates that an applicant with a high score on the

PSYCHOLOGICAL AND NON-PSYCHOLOGICAL GROUP CRITICAL VALUES OF
PEARSON'S r CORRELATION COEFFICIENT FOR
THREE ALPHA SIGNIFICANCE LEVELS

Variable	Predictor (Application Form)										
	2	3	4	5	6	7	8	9	10	12	23
25	.22	-.59	.55	-.25	.36	-.25	.36	.36		.26	.69
26	.24	-.56	.60	-.24	.35	-.26	.33	.30		.33	.55
27		-.77	.77	-.29	.41	-.30	.41	.41		.35	.84
28		-.46	.41								.53
29		-.78	.77	-.28	.39	-.29	.40	.40		.32	.86
30		-.78	.78	-.25	.36	-.26	.36	.35	-.22	.37	.86
31		-.79	.81	-.27	.39	-.28	.39	.39	-.21	.37	.86
32		-.79	.83	-.26	.37	-.26	.36	.36	-.21	.36	.82
33		-.79	.82	-.27	.39	-.28	.38	.38	-.21	.36	.84
34		-.79	.82	-.23	.33	-.23	.34	.32	-.20	.36	.85
35	.21	-.77	.81	-.27	.37	-.27	.38	.37	-.21	.37	.83
36		-.60	.61							.21	.66
37		-.80	.80	-.25	.36	-.26	.36	.36	-.20	.37	.87
38		-.59	.61								.57
39		-.80	.80	-.28	.40	-.29	.40	.39		.34	.85
40		-.75	.79	-.22	.33	-.24	.34	.33		.33	.82
41		-.77	.81	-.24	.35	-.25	.35	.35		.34	.84
42		-.77	.77	-.22	.32	-.22	.32	.33	-.20	.34	.81
43		-.81	.83	-.23	.34	-.25	.35	.35	-.21	.39	.85

r greater than .19 is significant at the .05 significance level.

r greater than .25 is significant at the .01 significance level.

r greater than .32 is significant at the .001 significance level
for 100 degrees of freedom.

depression scale drinks more frequently than an applicant with a low score on the depression scale.

3. Variable 42 (social introversion scale) correlated with variable 5 (criminal record) with a Pearson r of $-.22$ which indicates it to be at the $.05$ significance level. This intimates that an applicant with a high score on the social introversion scale is less likely to have a criminal record than an applicant with a low score on the social introversion scale.
4. Variable 42 (social introversion scale) correlated with variable 7 (convicted) with a Pearson r of $-.22$ which indicates significance at the $.05$ level. This intimates that an applicant with a high score on the social introversion scale is less likely to be convicted than an applicant with a low score on the social introversion scale.
5. Variable 42 (social introversion scale) correlated with variable 9 (number of charges) with a Pearson r of $.33$ which indicates significance at the $.001$ level. This intimates that an applicant with a high score on the social introversion scale is likely to have more charges than an applicant with a low score on the social introversion scale.

The researchers felt it necessary to summarize what the above means in the interpretation of such data. The

correlations intimate that the subjects studied on variables 30 (depression) and 42 (social introversion) of the MMPI scales would present certain selection criteria. This interpretation is as follows:

1. When variable 30 (depression) correlated negatively with variable 3 (drinks), it then becomes important to look at the correlation between variable 30 (depression) and variable 4 (frequency of consumption). This gives a picture of an applicant who obtains a high score on the depression scale and is less likely to drink, but when he does drink it is with greater frequency. This is combining the relationships between variable 30 and variables 3 and 4.
2. When variable 42 (social introversion) correlated negatively with variable 5 (criminal record), it then becomes important to look at the correlation between variable 42 and variables 7 and 9. This gives a picture of an applicant who obtains a high score on the social introversion scale as being less likely to have a criminal record, less likely to be convicted, but is more likely to have more charges. This means that it is less likely that he answered "yes" on variable 5 and less likely that he was convicted, but if he answered "yes" on variable 5, it is more likely that he has a

greater number of charges, but a fewer number of convictions. The inverse of this appears to be as true as the above interpretation.

The findings as exemplified above and in Table 7 substantiate the hypothesis that psychological selection is more predictive of some types of police behavior than non-psychological selection.

Table 8 gives each variable of the Background Investigation Rating Scale against the application form.

1. Variable 13 (appearance of applicant) correlated with variable 4 (frequency of consumption) with a Pearson r of .75 which indicates it to be at the .001 significance level. This intimates that the neater in appearance the applicant is rated, the more frequently he drinks.
2. Variable 18 (opinion of truth) correlated with variable 9 (number of charges) with a Pearson r of .23 which indicates it to be at the .05 significance level. This intimates that the likelihood is that the applicant was telling the truth as regards his number of charges on his criminal record.

The findings as exemplified above and in Table 8 substantiate the hypothesis that psychological selection is more predictive of some types of police behavior than non-psychological selection.

TABLE 8

PSYCHOLOGICAL AND NON-PSYCHOLOGICAL GROUP CRITICAL VALUES OF
PEARSON'S r CORRELATION COEFFICIENT FOR
THREE ALPHA SIGNIFICANCE LEVELS

Predictor (Application Form)	Predictor (Ruter Scale)										
	Variable	13	14	15	16	17	18	19	20	21	22
	1	-.20									
	2	.20									
	3	-.72	-.75	-.75	-.74	-.74	-.72	-.75	-.75	-.76	-.73
	4	.75	.77	.80	.78	.78	.76	.79	.79	.81	.76
	6		.21	.20	.24	.24	.23	.26	.25	.24	
	8	.20	.23	.22	.27	.27	.25	.28	.27	.27	.20
	9			.20	.25	.25	.23	.24	.25	.25	
	10			-.20			-.24		-.21		
12	.31	.27	.31	.34	.30	.43	.32	.36	.34	.27	
23	.79	.79	.81	.81	.76	.77	.81	.82	.82	.79	

r greater than .19 is significant at the .05 significance level.

r greater than .25 is significant at the .01 significance level.

r greater than .32 is significant at the .001 significance level
for 100 degrees of freedom.

Means and Standard Deviation -- Psychological Group

Table 9 represents the mean and standard deviations of the scores attained on the separate scales of the MMPI and the Otis Quick Scoring Mental Ability Test. The data contained in this table is purely descriptive in nature and does not show correlations or significance levels.

In Chapter III the last two pages explains means and standard deviations as well as their use and importance. An example would be the "F" scale (validity scale) of the MMPI: it indicates a mean of 2.200 and a standard deviation of 1.845, which means that on a standard normal distribution, 68.26% of the scores attained fell within one standard deviation above or below the mean. This would indicate that an applicant obtaining a score of 4.045 would be one standard deviation above the mean, and an applicant scoring .355 would be one standard deviation below the mean.

Most candidates taking the MMPI clustered about the mean on the "F" scale. On the Otis, the indication is that the applicant IQs were between approximately 90 and 111, with the average IQ being 101.120.

Summary

In this chapter the analysis of the data was presented. The chapter was divided into nine tables. Each table is explained in a brief summary, utilizing examples, drawn from the findings indicated in the table.

TABLE 9
PSYCHOLOGICAL GROUP MEANS AND
STANDARD DEVIATION MMPI
AND OTIS IQ

SCALE	MEAN	STANDARD DEVIATION
L	4.760	2.289
F	2.200	1.845
K	19.467	3.933
Hs	1.080	1.343
Hs	11.067	2.082
D	16.627	2.624
Hy	19.680	3.414
Pd	14.293	2.827
Pd	22.013	3.466
Mf	19.653	3.615
Pa	7.840	2.156
Pt	4.120	3.158
Pt	23.573	3.146
Sc	4.040	3.248
Sc	23.373	3.127
Ma	14.560	3.378
Ma	18.613	2.903
Si	18.400	4.770
Otis	101.120	10.388

Summary of the Major Findings

The findings reported here were obtained from analysis and summarization of the data.

It was found that out of 23 variables studied, there were seven correlations on the non-psychological group which were the result of chance occurrence. In the psychological group there were 38 correlations out of 52 variables which were the result of chance occurrence.

In the combined psychological-non-psychological group, there were eight correlations out of 52 which were the result of chance occurrence. The lack of significance in these variables suggests that the null hypothesis be accepted.

The tables are here summarized for the purpose of either accepting or rejecting the null hypothesis.

1. Table 1, Non-Psychological Group Correlations.

Five behavior variables correlated significantly with 11 predictor variables. This finding does not substantiate hypothesis 1 as stated in Chapter I of this study.

2. Tables 2 and 3, Psychological Group Correlations.

Five behavior variables correlated significantly with nine predictor variables. Three of the behavior variables were identical in this group with three from the non-psychological group (departmental rules and regulations, longevity and automotive accidents). There were three predictor variables repeated from the

non-psychological group in the psychological group (military service, drinks and frequency of consumption). This finding does substantiate hypothesis 2 stated in Chapter I of this study.

3. Tables 4, 5 and 6, Combined Non-Psychological-Psychological Group. Three behavior variables correlated significantly with 29 predictor variables.

Two of the behavior variables were identical with two behavior variables in the non-psychological group (longevity and departmental rules and regulations). Three of the behavior variables were identical with three behavior variables in the psychological group (longevity, departmental rules and regulations, and education change).

Five predictor variables were identical with five predictor variables in the non-psychological group (drinks, frequency of consumption, convicted, type of charge and accident involvement). Seven predictor variables were identical with seven predictor variables in the psychological group (drinks, frequency of consumption, Lie Scale (MMPI), Correction Scale (MMPI), Hypochondriasis Scale (MMPI), Psychasthenia Scale (MMPI) and the Otis Quick Scoring Mental Ability Test.

This finding does substantiate hypotheses 2 and 3 stated in Chapter I of this study.

4. Table 7 gives each variable on the MMPI and the Otis Quick Scoring Mental Ability Test as it correlates with various responses on the application form.
5. Table 8 gives each variable of the Background Investigation Rating Scale against the application form. The findings in Tables 7 and 8 do substantiate hypotheses 2 and 3 stated in Chapter I of this study.
6. Table 9 represents the means and standard deviations of the scores attained on the separate scales of the MMPI and the Otis Quick Scoring Mental Ability Test. The data contained in this table is purely descriptive in nature and does not show correlations or significance levels. This type information is not useful in determining whether to accept or reject the hypothesis of the study, but does indicate that 68.26% of the scores attained are on the standard normal curve.

In the following chapter the summary, conclusions, discussion and recommendations will be presented.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

SUMMARY

Introduction

In the preceding chapter, the analysis of the data was presented. In this chapter will be found: (1) a summary of the study; (2) conclusions based upon the data; (3) discussion; and (4) recommendations for further study.

Statement of the Problem

It was the purpose of this study to ascertain the correlation and validity of a psychological police selection program versus a non-psychological police selection program in the city of Pittsburgh, Pennsylvania. A study of validity had not been undertaken in regards to the psychological police selection program, therefore leaving the value of the Pittsburgh program unknown.

Methods and Procedures Used

With the use of the data codes and data collection forms, the data was collected at the city of Pittsburgh by the researchers. The data was then transformed into a format to be analyzed by a computer program.

The study was designed to report the data in a statistical format. Therefore the findings are presented in a table format

indicating correlations and significance levels of the variables studied.

Data which either supports or negates the hypothesis was broken into the following reporting format:

1. Non-psychological group.
2. Psychological group.
3. Combined psychological and non-psychological group.

The three groups were delineated by nine tables, which report the Pearson r correlation coefficient between predictors and job behavior, and correlations between predictor and application form predictors.

A significance level of .05 or better was established for the purposes of this study as the acceptable probability level at which chance occurrence is no longer a factor.

CONCLUSIONS

On the basis of the data collected, analyzed and reported, it is concluded that of the three hypotheses stated in Chapter I of this study, the authors accept hypotheses 2 and 3 as written, but must reject hypothesis number 1. The authors' intent was that hypothesis 1 would be the major hypothesis of this study.

The null hypothesis is accepted for hypothesis 1 and becomes:

1. That the patrolman selection program in Pittsburgh, Pennsylvania, as constructed and directed by a psychologist between 1965 and 1969, is no more predictive of appropriate police behavior than the previous selection program utilized.

The findings of the study support hypotheses 2 and 3 as written in Chapter I. They are:

2. That there is a relationship between the psychological instruments used for patrolman selection and police behavior.
3. That the use of Pittsburgh police personnel records will indicate criteria that can be correlated with predictors for selection purposes.

Although there were more predictor variables in the psychological and combined groups, they do not predict any difference in police behavior other than education change.

The two common behaviors which were predicted in the psychological and non-psychological groups were longevity and departmental rules and regulations. Out of nine behavior variables available in this study, only automotive accidents, lost time and education change possessed predictive validity for the psychological group. This intimates that there was little difference in the police behavior displayed between the psychologically selected officer and the non-psychologically

selected officer. We do not feel this is sufficient to support hypothesis 1.

The psychological instruments used did predict police behavior, but no more so than predictors available for non-psychologically selected officers. This leads to the obvious conclusion that the behavior variables were not comprehensive enough in scope. We feel that hypothesis 2 is supported, but doubt the value of spending additional funds on psychological selection for the purpose of predicting only two additional behaviors, lost time and education change.

The data provides strong support for hypothesis 3 in that it was found that significant correlations existed between the MMPI, Otis and the application form with police behavior. We conclude that this indicates that the application form is a valid predictor of police behavior as substantiated in this study.

DISCUSSION

The intent of the authors at the beginning of the study was to include:

1. Civil service records.
2. Precinct records.
3. Persons rejected by psychological selection.
4. Psychological interviews.
5. Academy score.

Unfortunately, we were well into the study before it was revealed that this data was either not available or of such a nature that its collection would be both expensive and time-consuming. We were thus forced to eliminate this data from the study. The impact of this data loss is discussed in the following paragraphs.

Civil service records may have indicated the score and rank position the applicant attained on the civil service examination. The value of the information this data may have provided is unknown; other studies have indicated it is of relatively little value in predicting other than the fact that the person could take and pass a civil service examination. We were desirous of learning if this were true in Pittsburgh as well.

Precinct records may have revealed traditional police behavior as it relates to job performance in a quantitative measure. The researchers were told that such information as number of arrests made, number of complaints handled, traffic citations issued, etc., did exist but was located in the individual precinct stations. These data were of such a nature as to make the collection of it expensive and time-consuming; estimated to be at least a one-year job.

In reflecting back on the results of this study, the authors realize the value of quantitative measures of police performance as a part of the overall spectrum of police behavior. This information may have revealed much more in the

area of total behavior measurement. It is at this time pure conjecture, but the researchers feel this performance may have been predictable using the psychological selection program studied. These data may have given some insight into the nebulous problem of aggression on the part of psychologically selected patrolmen, a problem often raised by police supervisors and administrators in Pittsburgh. Precinct records may have enabled the authors to determine whether the "aggression" often mentioned was appropriate or inappropriate police behavior.

The impact of the behavior of those applicants rejected by psychological selection may have been of inestimable value in ascertaining the overall predictable validity of the Pittsburgh psychological selection program. Even without the rejected applicant being a patrolman, his performance or behavior in other job areas after the testing may have provided valuable information.

The psychological interview conducted by the psychologists was unfortunately of such a nature that the researchers were unable to quantitatively determine its value. Had a method been available, this data may have been statistically valuable as a predictor. The researchers feel that the psychological interview was extremely valuable in the rejection of undesirable applicants but were unable to statistically substantiate this statement.

An attempt was made to obtain the academy scores of the applicants studied but this information was not maintained as a permanent record. These scores may have had more correlation with traditional measures of performance as well as the behavior variables utilized in the study.

The researchers feel that had the additional records and data been available, along with more time, the study would have been of greater value in assessing predictive validity of the Pittsburgh psychological selection program.

RECOMMENDATIONS

The results of this study are at best inconclusive. It does point out the need for more research to establish reliability and validity of psychological police selection. The use of psychological selection cannot be condemned, but neither can it be unqualifiably supported on the basis of this study.

Future researchers would be well to seek out a department that had utilized a reasonably sophisticated non-psychological selection program as well as maintaining an adequate personnel records system, prior to implementing a psychological selection program.

The use of quantitative measures of police performance, i.e., complaints handled, arrests made, etc., should be evaluated as an indicator of appropriate or inappropriate police behavior. It would certainly be useful if a scale,

such as the Likert Scale, be constructed to measure the value of the psychological stress interview in its relationship to psychological selection of police officers.

The relationship between the predictors utilized in this study with qualitative data, such as warrants issued and convictions obtained, would be a further indicator of police behavior.

Due to the increasing concern being expressed by many segments of society over the necessity of placing qualified and emotionally mature persons in police service, the evidence indicates that psychological selection may be an answer. However, at this point in time more research is needed to substantiate this opinion.

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APPENDIX A

MMPI Control Scales¹

1. (L) A raw score of 5 or more is suggestive of excessive rigidity, if not of conscious deception, if it cannot be explained on the basis of occupation (e.g., clergy) or naivete' associated with a culturally limited background.

In the general population, scores above 6 occur with persons who, for one reason or another, have pathologically intense needs to present a good front; it is interesting that high scores have been found actually to predict underachievement. The scale often does not detect deception in sophisticated individuals; and, in fact, a high score in an individual of mature background may be associated with judgment deficiencies and should be further investigated in this light.

2. (K) High K scorers are people who cannot tolerate any suggestion that they are insecure, that they have difficulties in social relations, or that they may not have their lives well ordered and controlled. They are intolerant and unaccepting of unconventional or nonconformist behavior in others. Markedly concerned about their own

¹James N. Butcher, MMPI: Research Developments and Clinical Applications (New York: McGraw-Hill Book Company, 1969), pp. 279-296.

social stimulus value, they are nevertheless relatively without insight concerning their effect upon others.

Moderate elevations on K are found in people described as enterprising, ingenious, resourceful, sociable, reasonable, enthusiastic and as having wide interests. A low K is usually accompanied by caustic manners, suspicion of the motivations of others and exaggeration of the ills of the world. Low K scorers have been described as awkward, cautious, peaceable, high strung, cynical, dissatisfied and individualistic. K is used as a correlation factor for some of the clinical scales.

3. (F) "T" scores above 80 suggest the following possibilities:
(a) error by the examiner in scoring the test; (b) failure of the patient to understand the items; (c) lack of cooperation, the patient having purposely responded in a random and haphazard fashion; (d) distortion due to confusion, delusional thinking or other psychotic processes; or (e) distortion due to the wish to put oneself in a bad light or falsely to claim mental symptoms.

With the "T" score above 80, the examiner should entertain the hypothesis that he has an invalid profile and should attempt to check this out by considering the characteristics of the remainder of the profile and the patient's responses to repeated items from the standpoint of intra-test consistency. "T" scores in the range of 65 to 80 are indicative of unusual or markedly

unconventional thinking and frequently appear in sullen, rebellious personalities of the schizoid, antisocial or "Bohemian" type.

Individuals having moderately elevated F scores are likely to be described as moody, changeable, dissatisfied, opinionated, talkative, restless and unstable. Low scorers are often described as sincere, calm, dependable, honest, simple, conventional, moderate and as having narrow interests.

MMPI Clinical Scales

1. (Hs) High scorers are sour on life, whiny, complaining, and generally handle their hostile feelings by making those around them miserable. Moderate elevations on scale 1 tend to be seen as unambitious, lacking in drive, stubborn and narcissistically egocentric. Persons scoring low on scale 1 are described as alert, capable and responsible.
2. (D) High 2 people tend to be silent and retiring, perhaps withdrawn and are seen by others as aloof, evasive, timid and more or less inhibited. Low 2 people are active, alert, cheerful and outgoing and are likely to be seen by others as enthusiastic, self-seeking and perhaps given to self-display.

3. (Hy) High 3 people are very likely to be extremely naive and self-centered in outlook. They are very demanding of affection and support and endeavor to get these by indirect but obtrusively manipulative means. Often they are highly visible and rather uninhibited in social relations; but such relations are carried on at a superficial, immature level. Little of a reliable nature is known about low 3 people, but many of them seem to be socially isolated, cynical and generally misanthropic.
4. (Pd) High 4 people are generally characterized by angry disidentification with recognized conventions; their revolt may be against family or society or both. Many high 4s exhibit an apparent inability to plan ahead, if not a reckless disregard of the consequences of their actions, and unpredictability is a feature of their behavior. Low scorers on 4 tend to be conventional, rigid and overidentified with social status; frequently they manifest very low levels of heterosexual aggressiveness.
5. (Mf) High scorers tend to be relatively passive individuals; some are definitely effeminate in manner. These men are seen as imaginative and sensitive and tend to have a wide range of interests. Low 5 are easy-going, adventurous, perhaps somewhat "coarse." In some low 5 scorers there is an element of compulsive masculinity;

the individual's efforts to appear masculine seem overdone and inflexible, often taking the form of exhibitionistic display of physical strength and endurance.

6. (Pa) High scorers tend to be suspicious and brooding, to harbor grudges and usually to feel that in some way they are not getting what is coming to them. Low 6 scorers tend to be stubborn and evasive, often feeling that dire consequences will follow upon their revealing themselves in any way.

Moderate elevation on 6 suggests an individual who adopts an intropunitive role outwardly but who expresses hostility by "arranging" events in which others are victimized.

7. (Pt) High scorers tend to be obsessively worried, tense, indecisive and unable to concentrate. Low scorers are usually relaxed, self-confident and secure.
8. (Sc) High scorers on 8 almost always feel alienated, misunderstood and peculiarly not a part of the general social environment. They have fundamental and disturbing questions about their own identity and worth. Even with moderate elevations, there is usually some difficulty in thinking and communication.

9. (Ma) High scorers are warm, enthusiastic, expansive, generally outgoing and uninhibited. They tend to become easily offended, however, and may be seen as tense and hyperactive. Low scorers often exhibit listlessness, apathy and lack of drive; almost always they are people lacking in self-confidence and a normal degree of optimism regarding the future. A very low score on 9 suggests serious depression.
10. (Si) High scorers tend to be withdrawn, aloof and anxious in contact with people. Low scorers on 10 are sociable, warm people. Extremely low scorers suggest a certain flightiness and superficiality of relationships; these hail-fellow-well-met individuals have well developed social techniques and very many social contacts but they do not establish relationships of real intimacy.

APPENDIX B

APPLICANT'S NAME _____

ADDRESS _____

Your application for the position of Police Officer with the City of Pittsburgh requires that you have a background investigation. Part of this investigation is a personal interview with you and your wife (if married) at your residence.

An interview has been scheduled for you on _____, at _____.

In case of emergency, or if you have any important questions, you may contact the Office of the Superintendent, Internal Affairs Division at 261-0300, extension 354 or 355 during the hours from 9:00 A. M. and 3:00 P. M., Monday thru Friday and ask for one of the Recruit Investigation Officers.

ALL APPLICANTS MUST HAVE THE FOLLOWING ITEMS FOR THIS INTERVIEW:

1. Birth Certificate
2. Pennsylvania Driver's License - current
3. Draft Registration and Classification Cards
4. Registration Card for auto if owned by applicant
5. Social Security Card
6. High School Diploma or Certificate. Also any other diplomas or certificates from colleges or special schools
7. Marriage Certificate
8. Discharge and Separation (Form DD 214) Papers from Military Service

It would also be advisable to have available the names and complete mailing addresses of three references who know you well. THESE PEOPLE MUST NOT BE THE SAME PERSONS WHO SIGNED THE VOUCHERS ON YOUR APPLICATION.

If for any reason you wish to waive the job at this time, or you do not wish to become a Police Officer, contact the Civil Service Commission at once by calling 281-3900, or go to Room 526 City-County Building in person.

APPLICANT'S NAME _____

ADDRESS _____

Your application for the position of Police Officer with the City of Pittsburgh requires that you have a background investigation. Part of this investigation is a personal interview with you and your wife (if married) at your residence.

An interview has been scheduled for you on _____, at _____.

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8. Discharge and Separation (Form DD 214) Papers from Military Service

It would also be advisable to have available the names and complete mailing addresses of three references who know you well. THESE PEOPLE MUST NOT BE THE SAME PERSONS WHO SIGNED THE VOUCHERS ON YOUR APPLICATION.

If for any reason you wish to waive the job at this time, or you do not wish to become a Police Officer, contact the Civil Service Commission at once by calling 281-3900, or go to Room 526 City-County Building in person.

.cant's #

SET #1

INVESTIGATIVE REPORT: APPLICANT

Name in full _____ Date _____

Date of Birth _____ Phone _____ Social Security _____

Car make _____ Year _____ License # _____ Operator's # _____

Address _____
Number Street City County State Zip Code

1. Check one - () I own my home () I am buying () I rent () other

List residences for last ten years and length of time. List present first.

_____Marital Status: () Single () Married () Separated () Divorced () Widowed
If divorced or separated, list name, address and phone of ex-spouse.

If you have children who are not living with you, what is their status?

If a naturalized citizen, when and where were you naturalized?

Are you registered for Selective Service? () Yes () No

Local Board City State Classification

1. Ever served on active duty in U. S. Armed Forces? () Yes () No

2. Any service connected disability, if so describe. _____

3. Branch of military service _____ Serial # _____

4. Dates of service: from _____ to _____

5. Discharge, type _____ Basis for _____

6. Separation Center _____

cant's #

SET #1

. Where were you stationed, primarily, during your active service time?

. Member of _____ Reserve () Yes () No () Ready () Standby
service branch

. Member of _____ National Guard () Yes () No

. Termination date of your Reserve or National Guard obligation _____

. If you attend drills, meetings or camps, give name and location of your unit.

. Was any disciplinary action taken against you in the service? () Yes () No

If yes, explain fully _____

. MALE APPLICANTS ONLY: Do you have any physical defects, including any which
would preclude unrestricted, regular participation in all phases of the Bureau's
firearms training and defensive tactics? () Yes () No

. If yes, explain _____

How many days have you lost from school or work in the past two years? _____

Reasons for absences _____

List the organizations to which you belong.

List the names and addresses of three people who know you well. These should be
associates with whom you have frequent contact. DO NOT LIST THE VOUCHERS GIVEN
ON YOUR APPLICATION FOR EXAMINATION.

name

address

SET NO. 1

Applicant's No. _____

Page 3

13. Most everybody takes a drink now and then. Please indicate which of the following you like to drink.

() Beer () Whiskey () Wine () Other, specify, _____

How often do you take a drink? () Several times a week. () Everyday

() Several times a month. () Several times a week. () Special Occasions

14. Credit Record

a. Has your credit record ever been considered unsatisfactory, or have you ever been refused credit? () No () Yes (Give dates, places, names and circumstances) _____

b. Do you have any large outstanding debts (over \$500)? () No () Yes (Specify)

Name of Creditor	Address	Amount Owed-Approximately

15. Court Record

a. Have you ever been arrested or charged with any violation, including traffic citations but not parking tickets, Juvenile Court? () No () Yes

Date	Place	Charge	Final Disposition	Details

16. b. Have you ever been a plaintiff or a defendant in a court action? () No () Yes

(Give date, place, court, names of parties involved, nature of action, and final disposition.)

plicant's #

SET #1

Page 4

- . Have you been involved in any auto accidents resulting in personal injury or property damage in excess of \$100 during the past five (5) years? () Yes () No

If Yes, list below the details of each accident:

Date	Personal Injury or Death	Amount of Damage	Were you held Liable?		Brief Statement of what happened.
			Yes	No	

Any judgment against you for an accident? _____

Operator's Plate Number _____ Restrictions _____

Any suspensions or Driver's license taken? () Yes () No

If so, what was the reason for suspension, and when? _____

- . List any special qualifications or schools you have.

licant's #

SET #4

Now you will find words commonly used to describe people. Place an "X" in the brackets beside those words that you feel describe the applicant.

-
- | | | |
|-------------------|------------------------|-----------------------|
| () accommodating | 34. () enthusiastic | 67. () polite |
| () active | 35. () fearful | 68. () powerful |
| () adventurous | 36. () flighty | 69. () quiet |
| () agreeable | 37. () frustrated | 70. () reckless |
| () aggressive | 38. () friendly | 71. () rough |
| () amiable | 39. () gloomy | 72. () sad |
| () amusing | 40. () good-natured | 73. () satisfied |
| () angry | 41. () happy | 74. () secure |
| () annoying | 42. () happy-go-lucky | 75. () shaky |
| () antagonistic | 43. () hard-working | 76. () shy |
| () bitter | 44. () helpful | 77. () slick |
| () anxious | 45. () hostile | 78. () slow |
| () belligerent | 46. () impatient | 79. () smooth |
| () busy | 47. () irritable | 80. () steady |
| () calm | 48. () jealous | 81. () stubborn |
| () cautious | 49. () kindly | 82. () stormy |
| () cheerful | 50. () lazy | 83. () strong |
| () clean | 51. () lonely | 84. () sullen |
| () complaining | 52. () lovable | 85. () sympathetic |
| () contrary | 53. () mad | 86. () tame |
| () cool | 54. () mean | 87. () tense |
| () cooperative | 55. () meek | 88. () terrible |
| () critical | 56. () merry | 89. () terrified |
| () cross | 57. () mild | 90. () thoughtful |
| () cruel | 58. () miserable | 91. () tormented |
| () daring | 59. () nervous | 92. () timid |
| () desperate | 60. () obstinate | 93. () understanding |
| () devoted | 61. () obliging | 94. () unhappy |
| () difficult | 62. () offensive | 95. () unsociable |
| () disagreeable | 63. () panicky | 96. () vexed |
| () discontented | 64. () patient | 97. () warm |
| () discouraged | 65. () peaceful | 98. () wild |
| () energetic | 66. () pleasant | 99. () willful |
| | | 100. () worrying |

INVESTIGATIVE REPORT: APPLICANT INTERVIEW

Investigating Officer _____ Date _____

Applicant's Name _____

Where interviewed _____

What do you think is the most important qualification for being a policeman?

Why should a police officer have this qualification? _____

What does a policeman do, as far as you know? _____

Have you ever had any experience in police work? () Yes () No (if yes, determine where and what type of experience?

What is there about a policeman's job that makes you think you would like to be one?

Of all the types of people you have met, which type of person do you think would make the poorest officer?

Applicant's #

SET #2

Page 2

Why would this type of person be a poor policeman? _____

What aspect of the policeman's job do you think you would like the most? _____

What aspect of the policeman's job do you think you would like the least? _____

Where are you working now? _____

(If applicant is not presently employed, determine last place of employment and check here ().

What do you like most about your present (most recent) job? _____

What do you dislike most about your present (most recent) job? _____

Why do you think you would rather be a policeman? _____

applicant's #

SET #2

2. Do you have any hobbies? _____

What do you do with your spare time? _____

Investigating officer should ask any specific questions that he feels may be relevant for a particular applicant. Please record question(s) and responses in space provided below. Use back of page if necessary.

Applicant's #

SET #2

General appearance of applicant

1	2	3	4	5
Very poor and empty		Average		Very neat
ment: _____				

Physical condition of applicant (based on appearance)

1	2	3	4	5
Thin; flabby		Average		Excellent condition
ment: _____				

Command of English Language

1	2	3	4	5
Very poor; difficulty expressing self				Excellent command of language
ment: _____				

Cooperation of applicant during interview

1	2	3	4	5
Uncooperative		Average		Very cooperative; volunteered information
ment: _____				

General appearance of home environment

1	2	3	4	5
Very dirty and empty		Average		Very neat and clean
ment: _____				

Check the appropriate statement from the following:

- () Applicant seemed to be giving accurate and truthful information.
- () Applicant was hesitant and seemed to be avoiding sensitive areas.
- () Applicant probably was not telling the truth but tried to make himself look good.

Are you acquainted with the applicant prior to making this investigation? () Yes () No
If yes, please state length and nature of your acquaintanceship.

How does the applicant rate on the following scale, in your opinion?

1	2	3	4	5
Would not hire a policeman		Average		One of the best applicants

INTERVIEW RESPONSE

What is there about the applicant that caused you to say he
would make a _____ policeman?

Handwriting practice lines consisting of solid top and bottom lines with a dashed midline for letter height guidance.

INTERVIEW OF APPLICANT'S WIFE

There are sure to be some things about your husband's being a policeman that you will like better than others. What do you feel would be your biggest complaint about his being a police officer? _____

Given a choice, what type of work would you pick for your husband?

Why? _____

Tell me, Mrs. _____, why do you think your husband wants to be a policeman? _____

Did your husband discuss applying for the Police Force with you or did he tell you of his decision after he made up his mind?

One of the requirements of a Pittsburgh Police Officer is that he carry a gun at all times that he is within the city limits regardless of his duty station. When he goes shopping or to the movies, for example, he may be required to perform police duties if a situation arises requiring it.

A. Were you aware of this before () No () Yes

B. How do you feel about this?

Your husband will be required to wear a uniform that is an easily identified symbol of authority. In what way do you think it will affect your relationship with your friends, neighbors and acquaintances?

Do you think it will have any effect on your children's relationships with their friends and playmates? _____

Applicant's #

SET #3

Page 2

The actions of fellow police officers may frequently affect the attitude of your neighbors and friends toward policemen in general and your husband in particular. How do you feel about this?

Investigating officer should ask any specific questions that he feels may be relevant. Please record question (2) and response in space provided.

licant's #

SET #4

Now you will find words commonly used to describe people. Place an "X" in the brackets beside those words that you feel describe the applicant.

-
- | | | |
|-------------------|------------------------|-----------------------|
| () accommodating | 34. () enthusiastic | 67. () polite |
| () active | 35. () fearful | 68. () powerful |
| () adventurous | 36. () flighty | 69. () quiet |
| () agreeable | 37. () frustrated | 70. () reckless |
| () aggressive | 38. () friendly | 71. () rough |
| () amiable | 39. () gloomy | 72. () sad |
| () amusing | 40. () good-natured | 73. () satisfied |
| () angry | 41. () happy | 74. () secure |
| () annoying | 42. () happy-go-lucky | 75. () shaky |
| () antagonistic | 43. () hard-working | 76. () shy |
| () bitter | 44. () helpful | 77. () slick |
| () anxious | 45. () hostile | 78. () slow |
| () belligerent | 46. () impatient | 79. () smooth |
| () busy | 47. () irritable | 80. () steady |
| () calm | 48. () jealous | 81. () stubborn |
| () cautious | 49. () kindly | 82. () stormy |
| () cheerful | 50. () lazy | 83. () strong |
| () clean | 51. () lonely | 84. () sullen |
| () complaining | 52. () lovable | 85. () sympathetic |
| () contrary | 53. () mad | 86. () tame |
| () cool | 54. () mean | 87. () tense |
| () cooperative | 55. () meek | 88. () terrible |
| () critical | 56. () merry | 89. () terrified |
| () cross | 57. () mild | 90. () thoughtful |
| () cruel | 58. () miserable | 91. () tormented |
| () daring | 59. () nervous | 92. () timid |
| () desperate | 60. () obstinate | 93. () understanding |
| () devoted | 61. () obliging | 94. () unhappy |
| () difficult | 62. () offensive | 95. () unsociable |
| () disagreeable | 63. () panicky | 96. () vexed |
| () discontented | 64. () patient | 97. () warm |
| () discouraged | 65. () peaceful | 98. () wild |
| () energetic | 66. () pleasant | 99. () willful |
| | | 100. () worrying |

Cant's #

SET #4

Page 1

ASSOCIATE OR NEIGHBOR FORM

Cant's Name _____

Candent's Name _____

Candent's Address _____

The above named applicant has applied for a position on the Pittsburgh Police Force and has given your name as a reference. He has authorized the City to make whatever inquiries are felt necessary concerning his suitability for this position. Your replies to the following questions will be confidential and under no circumstances will they be made available to anyone but the evaluating agency. Please be as frank as possible in your replies as it is only through cooperation of individuals such as yourself that the applicant can be fairly evaluated. Thank you.

How long have you known the applicant? _____

What is the nature of your acquaintance with the applicant? (Check as many as applicable)

() Social () Work () Family, i.e., related () Other (Specify, _____)

Where does the applicant live at the present time? _____

Is the applicant presently employed? () Yes () No () Do not know

If yes, where is the applicant employed? _____

If no, has the applicant been employed in the past? () Yes () No () Do not know

If yes, where was the applicant employed? _____

Is the applicant presently () Married () Divorced () Single () Separated

() Other (Please specify _____)

Any children? () Yes () No

Place an "X" on the following scale to indicate what kind of policeman you feel the applicant would make.

1	2	3	4	5
Poor ()	Below Average ()	Average ()	Above Average ()	Excellent ()

NEIGHBOR FORM

licant's Name _____

licant's Address _____

ndent's Name _____

ndent's Address _____

The above named applicant has applied for a position on the Pittsburgh Police Force. He has authorized the City to make whatever inquiries are felt necessary concerning his suitability for this position. We have taken your name and address from the City Directory, which lists you as a neighbor, and we would appreciate your filling out these forms to the best of your knowledge and returning them to us in the enclosed envelope. Your replies to the following questions will be confidential and under no circumstances will they be made available to anyone but the evaluating agency. Please be as frank as possible in your replies as it is only through cooperation of individuals as yourself that the applicant can be fairly evaluated. Thank you.

How long have you known the applicant? _____

What is the nature of your acquaintance with the applicant? (check all that apply)

() Neighbor only () Social () Work () Family (related) () Other (specify) _____

Is the applicant presently employed? () Yes () No () Do not know

If yes, where is he employed? _____

If no, has he been employed in the past? () Yes () No () Do not know

If yes, where was he employed? _____

Is the applicant presently () Married () Divorced () Single () Separated

() Other (please specify) _____

Any children? () Yes () No How many? _____

Place an "X" on the following scale to indicate what kind of policeman you feel the applicant would make.

1	2	3	4	5
()	Below Average ()	Average ()	Above Average ()	Excellent ()

Applicant's #

SET #4

Page 3

ASSOCIATE OR NEIGHBOR RESPONSE

What is there about the applicant that caused you to say
he would make a _____ policeman?

Do you have any knowledge of the applicant that you feel
would be of value in evaluating his suitability for the
job of policeman?

licant's #

SET #4

Now you will find words commonly used to describe people. Place an "X" in the brackets beside those words that you feel describe the applicant.

-
- | | | |
|-------------------|------------------------|-----------------------|
| () accommodating | 34. () enthusiastic | 67. () polite |
| () active | 35. () fearful | 68. () powerful |
| () adventurous | 36. () flighty | 69. () quiet |
| () agreeable | 37. () frustrated | 70. () reckless |
| () aggressive | 38. () friendly | 71. () rough |
| () amiable | 39. () gloomy | 72. () sad |
| () amusing | 40. () good-natured | 73. () satisfied |
| () angry | 41. () happy | 74. () secure |
| () annoying | 42. () happy-go-lucky | 75. () shaky |
| () antagonistic | 43. () hard-working | 76. () shy |
| () bitter | 44. () helpful | 77. () slick |
| () anxious | 45. () hostile | 78. () slow |
| () belligerent | 46. () impatient | 79. () smooth |
| () busy | 47. () irritable | 80. () steady |
| () calm | 48. () jealous | 81. () stubborn |
| () cautious | 49. () kindly | 82. () stormy |
| () cheerful | 50. () lazy | 83. () strong |
| () clean | 51. () lonely | 84. () sullen |
| () complaining | 52. () lovable | 85. () sympathetic |
| () contrary | 53. () mad | 86. () tame |
| () cool | 54. () mean | 87. () tense |
| () cooperative | 55. () meek | 88. () terrible |
| () critical | 56. () merry | 89. () terrified |
| () cross | 57. () mild | 90. () thoughtful |
| () cruel | 58. () miserable | 91. () tormented |
| () daring | 59. () nervous | 92. () timid |
| () desperate | 60. () obstinate | 93. () understanding |
| () devoted | 61. () obliging | 94. () unhappy |
| () difficult | 62. () offensive | 95. () unsociable |
| () disagreeable | 63. () panicky | 96. () vexed |
| () discontented | 64. () patient | 97. () warm |
| () discouraged | 65. () peaceful | 98. () wild |
| () energetic | 66. () pleasant | 99. () willful |
| | | 100. () worrying |

licant's Name

e of Birth

t Year Attended School or year graduated

Dear Respondent:

The above-named individual is being considered for a position with the City of Pittsburgh, Bureau of Police. In order to evaluate this person accurately and fairly it is necessary that we obtain information from various sources concerning this person. Please answer the following questions to the best of your ability. If you feel you do not or did not know the applicant well enough to answer these items, please return this questionnaire after having so indicated in the space provided below. If also possible, a copy of the applicant's school record would be greatly appreciated for our records.

To the best of your knowledge, was the above named individual:

1. Ever expelled for misconduct or other reasons? ()Yes ()No
2. A discipline problem or disruptive influence in the classroom? ()Yes ()No
3. Elected to a class office or other position? ()Yes ()No
4. Appointed to a position of responsibility? ()Yes ()No
5. Awarded an honor or special recognition? ()Yes ()No

If you have checked "Yes" for any of the above questions, please give details in the space provided below.

() I did not know or do not know the applicant sufficiently well to provide the requested information.

Please state capacity in which you knew the applicant and the length of time you knew him.

Thank you for your cooperation.

Signature of Respondent

EMPLOYER OR FORMER EMPLOYER FORM

1. NAME _____

2. ADDRESS _____

3. NAME _____

4. ADDRESS _____

The above-named applicant has applied for the position of Patrolman with the Pittsburgh Police Department and has listed you as an employer or former employer. CITY is making these inquiries concerning his suitability for the position. Your replies to the following questions will be CONFIDENTIAL and under no circumstances they be made available to anyone but the evaluating agency. Please be as frank as possible in your replies as it is only through cooperation of individuals such as yourself that the applicant can be fairly evaluated. Thank you.

How long was, or is the applicant in your employ? _____

In what capacity, labor or supervisory? _____

a. Did he receive any special training or was he sent to any schools? _____

What was, or is the annual wage for the applicant? _____

Was, or is this applicant a good, steady employee? _____

a. If not, why? _____

If this applicant has left or would leave, would you rehire him? _____

a. If not, why? _____

Was any disciplinary action taken against the applicant? _____

a. If so, what? _____

According to your records, what is the present address of the applicant? _____

a. Any former addresses and how long residing at each? _____

Applicant's home phone number? _____

Place an "X" on the following scale to indicate what kind of a policeman you feel the applicant would make.

() Poor () Below Average () Average () Above Average () Excellent

a. Why do you feel the applicant would make that type of policeman? _____

Employer's Signature

APPENDIX C

DATA CODES

1. Applicant: 001-150
2. Operator's License: Yes -- 1
No -- 2
3. Residence: Own -- 1
Buying -- 2
Rent -- 3
Other -- 4
4. Number of residences last 10 years: One -- 1
Two -- 2
Three -- 3
Four -- 4
Five or more -- 5
5. Number of years at residence (longest at single address):
One -- 1
Two -- 2
Three -- 3
Four -- 4
Five or more -- 5
6. Marital Status: Single -- 1
Married -- 2
Separated -- 3
Divorced -- 4
Widowed -- 5
7. Registered for Selective Service: Yes -- 1
No -- 2
8. Military Service: Yes -- 1
No -- 2
9. Service connected disability: Yes -- 1
No -- 2
10. Branch of Service: Army -- 1
Navy -- 2
Air Force -- 3
Marines -- 4
Coast Guard -- 5
Reserves -- 6
National Guard -- 7
11. Type of discharge: Honorable -- 1
Bad Conduct -- 2
Undesirable -- 3
Dishonorable -- 4
Obligation Uncompleted -- 5

12. Length of service: Number of years -- i.e., 2
13. Disciplinary action: Yes -- 1
No -- 2
14. Amounts: One -- 1
Two -- 2
Three or more -- 3
15. Lost days on job or school (past two years): Less than 10 -- 1
11 - 20 -- 2
21 - 30 -- 3
31 - 40 -- 4
41 - 50 -- 5
51 - 60 -- 6
60 or more -- 7
16. Number of organizations belonged to: None -- 0
One -- 1
Two -- 2
Three -- 3
Four or more -- 4
17. Drinker: Yes -- 1
No -- 2
18. Frequency: Never -- 0
Special occasions -- 1
Several times a month -- 2
Several times a week -- 3
Everyday -- 4
19. Refused credit: Yes -- 1
No -- 2
20. Amount of debts (over \$500): One -- 1
Two -- 2
Three -- 3
Four -- 4
Five or more -- 5
21. Criminal record: Yes -- 1
No -- 2
22. Type: Felony -- 1
Misdemeanor -- 2
Traffic -- 3
Juvenile -- 4
23. Convicted: Yes -- 1
No -- 2

24. Type of charge: Felony, Homicide -- 1
 Assault -- 2
 Robbery -- 3
 Burglary -- 4
 Vice -- 5
 Other -- 6
 Misdemeanor, Public Intoxication -- 7
 Disorderly -- 8
 Fighting -- 9
 Other -- 10
 Traffic: Speeding -- 11
 Reckless Driving -- 12
 Disobeyed traffic control -- 13
 Improper lane use -- 14
 Improper turn -- 15
 Drinking driving -- 16
 Equipment violation -- 17
 Other -- 18
25. Number of charges: ONE -- 1
 Two -- 2
 Three -- 3
 Four -- 4
 Five or more -- 5
26. Civil action: Yes -- 1
 No -- 2
27. Number of times: One -- 1
 Two -- 2
 Three or more -- 3
28. Plaintiff or defendant: Plaintiff -- 1
 Defendant -- 2
29. Accident involvement: Yes -- 1
 No -- 2
30. Personal injury: Yes -- 1
 No -- 2
31. Property damage: Yes -- 1
 No -- 2
32. At fault: Yes -- 1
 No -- 2
33. Number of times: One -- 1
 Two -- 2
 Three -- 3
 Four or more -- 4

34. Appearance of applicant:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Sloppy and unkempt	Below Average	Average	Neat	Very Neat

35. Physical condition:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Unfit	Below Average	Average	Good	Excellent Condition

36. Use of language:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Very Poor	Poor	Average	Average	Excellent Command of Language

37. Cooperation of applicant:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Resistant, Uncooperative	Below Average	Average	Cooperative	Very Cooperative Volunteered Information

38. General appearance of home:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Dirty Unkempt	Below Average	Average	Neat	Very Neat and clean

39. Opinion of truth: Truthful -- 1
Untruthful -- 2

40. Hesitant or avoiding: Yes -- 1
No -- 2

41. Not telling truth or attempts to conceal: Yes -- 1
No -- 2

42. Prior acquaintance: Yes -- 1
No -- 2

43. Opinion scale:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Should Not Be A Policeman	Below Average	Average	Above Average	One of the Best Applicants

Academy: score or standing

MMPI: score by scale

Otis Quick Scoring: score

Guilford-Zimmerman: score

SET # 3 -- WIFE

1. Danger -- 1
Hours -- 2
Pay -- 3
Other -- 4
2. White collar -- 1
Blue collar -- 2
Professional -- 3
Self-employed -- 4
Services -- 5
Other -- 6
3. Challenge -- 1
Career -- 2
Opportunity -- 3
Other -- 4
4. Did discuss -- 1
Did not discuss -- 2
5. a. Yes -- 1
No -- 2

b. Like -- 1
Dislike -- 2
No feelings -- 3
6. a. Will affect -- 1
Will not affect -- 2
Other -- 3

b. Yes -- 1
No -- 2
7. Will bother me -- 1
Will not bother me -- 2
No idea of reaction -- 3

SET #4 -- ASSOCIATE OR NEIGHBOR

1. Number of years acquainted: i.e., 5 years
 2. Social -- 1
Work -- 2
Family (related) -- 3
Other -- 4
 3. Know where applicant lives: Yes -- 1
No -- 2
 4. a. Applicant employed: Yes -- 1
No -- 2
Do not know -- 3

b. Applicant employed in past: Yes -- 1
No -- 2
Do not know -- 3
 5. a. Marital status, knowledge of applicant: Married -- 1
Divorced -- 2
Single -- 3
Separated -- 4
Widowed -- 5

b. Does applicant have children: Yes -- 1
No -- 2
 6. Type of policeman applicant will make:
- | | | | | |
|----------|------------------|----------|------------------|-----------|
| <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> |
| Poor | Below
Average | Average | Above
Average | Excellent |

SET #5 -- SCHOOL

1. Expelled for misconduct: Yes -- 1
No -- 2
2. Discipline problem or disruptive influence: Yes -- 1
No -- 2
3. Class office or other position: Yes -- 1
No -- 2
4. Appointed position of responsibility: Yes -- 1
No -- 2
5. Awarded honor or recognition: Yes -- 1
No -- 2
6. Blank or "X" will not be used.

SET #6 -- EMPLOYER

1. Length of employment: i.e., 2 years
2. Labor -- 1
Supervisory -- 2
3. Annual wage: Less than \$5,000 -- 1
Over \$5,000--less than \$7,000 -- 2
Over \$7,000--less than \$9,000 -- 3
Over \$9,000 -- 4
4. a. Good, steady employee: Yes -- 1
No -- 2

b. If no reason: Argumentative -- 1
Tardiness -- 2
Disruptive -- 3
Drinker -- 4
Thief -- 5
Excessive illness or injury -- 6
Other -- 7
5. a. Would you rehire: Yes -- 1
No -- 2

b. If no reason: Argumentative -- 1
Tardiness -- 2
Disruptive -- 3
Drinker -- 4
Thief -- 5
Excessive illness or injury -- 6
Other -- 7
6. a. Any disciplinary action: Yes -- 1
No -- 2

b. If "yes," what: Fine -- 1
Layoff -- 2
Warning -- 3
Dismissal -- 4
Other -- 5
7. Type of policeman felt applicant would make:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Poor	Below Average	Average	Above Average	Excellent

RECORDS

A. Disciplinary Action

1. Initiated-Uncompleted:

- a. Charges unfounded -- 1
 - Not enough evidence -- 2
 - Dropped for other reasons -- 3
- b. Should be blank.
- c. Frequency: One -- 1
 - Two -- 2
 - Three -- 3
 - Four -- 4
 - Five or more -- 5
- d. Seriousness: Assault with weapon -- 1
 - Assault--physical -- 2
 - Assault--verbal -- 3
 - False arrest -- 4
 - Committed crime -- 5
 - Other -- 6

2. Initiated-Completed:

- a. Guilty -- 1
 - Not Guilty -- 2
- b. Fine -- 1
 - Less than 1 week suspension -- 2
 - More than 1 week, less than 1 month suspension -- 3
 - More than 1 month suspension -- 4
 - Dismissal -- 5
 - Warning -- 6
 - Other -- 7
- c. Frequency: One -- 1
 - Two -- 2
 - Three -- 3
 - Four -- 4
 - Five or more -- 5
- d. Seriousness: Assault with weapon -- 1
 - Assault--physical -- 2
 - Assault--verbal -- 3
 - False arrest -- 4
 - Committed crime -- 5
 - Other -- 6

Records (continued)

3. Departmental (Rules and Regulations)

a. Frequency:	One	-- 1
	Two	-- 2
	Three	-- 3
	Four	-- 4
	Five or more	-- 5
b. Fine		-- 1
Less than 1 week suspension		-- 2
More than 1 week, less than 1 month suspension		-- 3
More than 1 month suspension		-- 4
Dismissal		-- 5
Warning		-- 6
Other		-- 7

B. Accidents

1. Automotive: Personal injury -- 1
Property damage -- 2

a. At fault	-- 1
Not at fault	-- 2
Avoidable	-- 3

b. Time off:	Less than 3 days	-- 1
	3 days to 1 week	-- 2
	Extended time off	-- 3
	None	-- 4

c. Frequency:	One	-- 1
	Two	-- 2
	Three	-- 3
	Four	-- 4
	Five or more	-- 5

d. Seriousness:	Property damage less than \$100	-- 1
	Property damage less than total	-- 2
	Total damage	-- 3
	Injury without hospitalization	-- 4
	Injury with short hospitalization	-- 5
	Extended care or hospitalization	-- 6
	Death	-- 7

2. Personal:

a. Injured in line of duty	-- 1
Injured off duty	-- 2
Injured not in line of duty, but on duty	-- 3

Records (continued)

b. At fault -- 1
 Not at fault -- 2
 Avoidable -- 3

c. Time off: Less than 3 days -- 1
 3 days to 1 week -- 2
 Extended time off -- 3
 None -- 4

d. Frequency: One -- 1
 Two -- 2
 Three -- 3
 Four -- 4
 Five or more -- 5

3. Unavoidable: Yes -- 1
 No -- 2

C. Time off:

a. Tardiness -- 1
 Excused -- 2
 Unexcused -- 3

D. Change in marital status:

a. Widowed -- 1
 Divorced or separated -- 2
 Frequency: One -- 1
 Two -- 2
 Three or more -- 3

E. Education change:

a. Completed high school -- 1
 Started or completed college -- 2
 Attended non-credit courses related to police work -- 3

F. Illness:

a. Job related: Excused by doctor -- 1
 Unexcused -- 2
 Non-job related: Excused by doctor -- 3
 Unexcused -- 4
 Number of days lost: i.e., 20 days.

G. Commendations:

a. Departmental: Above normal duties -- 1
 Departmental: Cited in line of duty -- 2
 Civilian: Above normal duties -- 3
 Civilian: Citations or letters for services performed -- 4

APPENDIX D

POLICE INVESTIGATIVE REPORT

1. Applicant
2. Ops.
3. Residence
4. Number of residences last 10 years
5. Number of years at residence
6. Marital status
7. Registered selective service
8. Military service
9. Service connected disability
10. Branch of service
11. Type of discharge
12. Length of service
13. Disciplinary action
14. Amounts
15. Last days on job or school
16. Organizations belonged to
17. Drinks
18. Frequency
19. Refused credit
20. Amount of debts
21. Criminal record
22. Type
23. Convicted

24. Type of charge
25. Number of charges
26. Civil action
27. Number of times
28. Plaintiff or defendant
29. Accident involvement
30. P.I.
31. P.D.
32. At fault
33. Number of times
34. Appearance of applicant
35. Physical condition
36. Use of language
37. Cooperation of applicant
38. Appearance of home
39. Opinion of truth
40. Hesitant or avoiding
41. Not telling truth or attempts to conceal
42. Prior acquaintance
43. Opinion scale

Academy _____

MMPI

_____ 1	_____ 2	_____ 3	_____ 4	_____ 5	_____ 6	_____ 7
_____ 8	_____ 9	_____ 10	_____ 11	_____ 12	_____ 13	

Otis Quick Scoring _____

Guilford-Zimmerman _____

Set #3 -- Wife

1. _____
2. _____
3. _____
4. _____
5. a. _____
b. _____
6. a. _____
b. _____
7. b. _____

Set #4 -- Associate or Neighbor

1. _____
2. _____
3. _____
4. a. _____
b. _____
5. a. _____
b. _____
6. _____
1 2 3 4 5

Set #5 -- School

- | | 1 | 2 |
|----|-------|-------|
| 1. | _____ | _____ |
| 2. | _____ | _____ |
| 3. | _____ | _____ |
| 4. | _____ | _____ |
| 5. | _____ | _____ |

Uncompleted _____

Set #6 -- Employer

- | | | | | | |
|----|-------|-------|-------|-------|-------|
| 1. | _____ | | | | |
| 2. | _____ | | | | |
| 3. | _____ | | | | |
| 4. | a. | _____ | | | |
| | b. | _____ | | | |
| 5. | a. | _____ | _____ | | |
| | | 1 | 2 | | |
| | b. | | | | |
| 6. | a. | _____ | _____ | | |
| | | 1 | 2 | | |
| | b. | | | | |
| 9. | _____ | _____ | _____ | _____ | _____ |
| | 1 | 2 | 3 | 4 | 5 |

RECORDS

A. Disciplinary Action

1. Initiated-Uncompleted

- | | |
|----|----|
| a. | b. |
| c. | d. |

2. Initiated-Completed

- | | |
|----|----|
| a. | b. |
| c. | d. |

3. Departmental (Rules and Regulations)

- | | |
|----|----|
| a. | b. |
| c. | d. |

B. Accidents

1. Automotive

- | | |
|----|----|
| 1. | 2. |
| a. | b. |
| c. | d. |

2. Personal

- | | |
|----|----|
| a. | b. |
| c. | d. |

3. Unavoidable

C. Time Off

- | | |
|----|----|
| a. | b. |
| c. | |

D. Change in Marital Status

- | | |
|----|----|
| a. | b. |
| c. | d. |

E. Education Change

- a. b.
- c.

F. Illness

- a. b.
- c.

G. Commendations

- a. b.
- a. 1. b. 1.

APPENDIX E

<u>Observation Number</u>	<u>Card Column 1-3</u>	<u>Group 2 and Combined Groups Variable</u>	<u>Group 1 Variable</u>
Marital Status	4	1	1
Military Service	5	2	2
Drinks	6	3	3
Frequency of Consumption	7	4	4
Criminal Record	8	5	5
Type of Record	9	6	6
Convicted	10	7	7
Type of Charge	11-12	8	8
Number of Charges	13	9	9
Accident Involvement	14	10	10
At Fault	15	11	11
Number of Times	16	12	12
<u>Rating Scale*</u>			
Appearance of Applicant	17	13	
Physical Condition	18	14	
Use of Language	19	15	
Cooperation of Applicant	20	16	
General Appearance of Home	21	17	
Opinion of Truth	22	18	
Hesitant or Avoiding	23	19	
Not Telling Truth or Attempts to Conceal	24	20	
Prior Acquaintance	25	21	
Opinion Scale	26	22	
Education	27-28	23	13
Number of Previous Jobs	29	24	14

*Used in psychological selection program by background investigation interviewers.

<u>MMPI Scales</u>	<u>Column</u>	<u>Variable</u>	
L--Lie Scale	30-31	25	
F--Validity Scale	32-33	26	
K--Correction Scale	34-35	27	
Hs--Hypochondriasis	36-37	28	
Hs--Hypochondriasis	38-39	29	
D--Depression	40-41	30	
Hy--Hysteria	42-43	31	
Pd--Psychopathic Deviate	44-45	32	
Pd--Psychopathic Deviate	46-47	33	
Mf--Masculinity-Feminity	48-49	34	
Pa--Paranoia	50-51	35	
Pt--Psychasthenia	52-53	36	
Pt--Psychasthenia	54-55	37	
Sc--Schizophrenia	56-57	38	
Sc--Schizophrenia	58-59	39	
Ma--Mypomania	60-61	40	
Ma--Hypomania	62-63	41	
Si--Social Introversion	64-65	42	
<u>Otis Quick Scoring</u>			
<u>Mental Ability Test</u>	66-68	43	
Longevity	69	44	15
<u>Disciplinary Action</u>			
Initiated-Uncompleted	70	45	16
Initiated-Completed	71	46	17
 Departmental Rules and Regulations	 72	 47	 18
<u>Accidents</u>			
Automotive	73	48	19
Personal	74	49	20
Lost Time	75-76	50	21
Education Change	77	51	22
Commendations	78	52	23

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