

EVALUATION OF A SELECTION PROCEDURE MODEL
FOR SCREENING AND HIRING OKLAHOMA
HIGHWAY PATROL OFFICERS

By

JOE L. DAVENPORT

Bachelor of Arts

Northeastern State College

Tahlequah, Oklahoma

1966

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
in partial fulfillment of the requirements
for the Degree of
Master of Science
December 1985

Thesis
1985
Daly
cop. 2



EVALUATION OF A SELECTION PROCEDURE MODEL
FOR SCREENING AND HIRING OKLAHOMA
HIGHWAY PATROL OFFICERS

Thesis Approved:

Michael P. Kerr

Thesis Advisor

Joseph Paul

William W. Rambo

Norman D. Durbin

Dean of Graduate College

1251216

ACKNOWLEDGMENTS

The author wishes to express his deep appreciation to the members of his master's committee. Thanks is extended to Dr. Mike Kerr, the author's committee chairperson, whose assistance was an inspiration to the author. Special thanks is extended to Dr. Stephen Grissom, whose enthusiasm, knowledge of statistics, research methodology and psychometric theory encouraged the author to seek graduate education in this field.

A special thanks to my employer, Mr. James Thomas, Administrator, Oklahoma Office of Personnel Management, and to my supervisor, Dr. Jeff Feuquay, Assistant Administrator, Department of Employee Selection and Development, Office of Personnel Management, for assisting my pursuit of this degree, and to Charles Dorrough, Personnel Director, Oklahoma Department of Public Safety and Dr. Joe Elam, Director of Psychological Services, Oklahoma Department of Public Safety for their cooperation and assistance.

I would especially like to thank my children: John, Beth, and Jenny who have inspired me to do good things in my life.

TABLE OF CONTENTS

Chapter	Page
I. THE RESEARCH PROBLEM	1
Introduction	1
Statement of the Problem.	2
Definition of Terms	3
II. REVIEW OF THE LITERATURE	6
Introduction	6
Police Personnel Selection History	7
Predictors and Criteria in Police Selection	10
Professional and Legal Considerations for Police Selection	11
Use of Regression Analysis in Police Selection	13
Summary.	14
Research Questions	15
III. METHOD	17
Sample	17
Instruments	18
Procedures	27
Limitations of Study	28
IV. RESULTS	30
Introduction	30
Research Questions.	31
V. CONCLUSION	34
SELECTED BIBLIOGRAPHY	39
APPENDIX -- PERFORMANCE RATING	43

LIST OF TABLES

Table	Page
I. Driving Test Score Sheet	21
II. Oral Examination Rating Scale	22
III. Physical Ability Rating Scale	24
IV. Variables, Means, and Standard Deviations for Scores in the Present Study	31
V. Pearson r Coefficients for Variable Scores in the Present Study	32
VI. Results of Stepwise Multiple Regression Analysis.	32

CHAPTER I

THE RESEARCH PROBLEM

Introduction

Public personnel jurisdictions have used competitive employment selection procedures since before the Civil War. In 1814 the Army instituted examinations to select surgeons and shortly thereafter the Naval Academy and West Point began to administer tests to prospective students (Hale, 1982). Passage of the Civil Service Act of 1883 created the federal Civil Service Commission (name changed to the federal Office of Personnel Management in 1978) which was to limit the "spoils system" of previous government political patronage by establishing competitive entrance and selection requirements for public jobs (Stahl, 1976).

State Merit Systems were created to administer public personnel management after the model of the Civil Service Commission. The Oklahoma Merit System was created in 1959, under the leadership of then Governor J. Howard Edmondson. The Oklahoma Merit System was changed to the Oklahoma Office of Personnel Management in 1982.

The Oklahoma Highway Patrol is a division of the Oklahoma Department of Public Safety—a state agency and a public jurisdiction. Under Oklahoma law, the Oklahoma Department of Public Safety comes under the jurisdiction of the Oklahoma Merit System, administered by the Oklahoma Office of Personnel Management. The Oklahoma Office of Personnel Management establishes

classification, compensation, and selection procedures for agencies under its jurisdiction.

The Oklahoma Highway Patrol employs highway patrol officers to patrol assigned areas of the State of Oklahoma and enforce motor vehicle and other state laws. Patrol officers (alternately referred to as troopers) are commissioned law enforcement officers who perform duties that range from giving safety talks or demonstrations to school classes, clubs and groups, to pursuing fleeing felons or perpetrators and making apprehensions or arrests, using deadly force if necessary.

Selection of persons to become Oklahoma Highway Patrol officers has been the subject of intense interest since the Patrol was founded in 1937. Since the Patrol came under the jurisdiction of the Oklahoma Merit System, more intensive efforts have been made to assure that its selection activities parallel those of effective police selection in the professional community. Advances in police selection have been the greatest in the last twenty years (Spielberger, 1979). The use of multiple predictors (selection devices) by the Oklahoma Highway Patrol reflects the practices of other police jurisdictions (Spielberger, 1979). However, the efficacy of these predictors has not heretofore been demonstrated.

Statement of the Problem

The Oklahoma Department of Public Safety uses competitive personnel selection procedures to rank, consider, and select job applicants for admission to highway patrol training academies---with the ultimate goal of producing trained, effective Oklahoma Highway Patrol officers. Applicants are ranked on the basis of "composite" numerical score, which is a weighted combination of five separate selection tests. The Department currently uses a subjective method (pooled

judgements) of assigning weights to the test scores rather than a prediction model like a regression equation. Currently the predictors are subjectively weighted as follows: Written Test = 25%, Driving Test = 25%, Physical Ability Test = 10%, Oral Examination = 25%, Biographical Background Examination = 15%. No empirical evaluation of the efficacy of this method has been conducted.

An extremely high investment of time, resources and money is involved in the selection, training, and retention of career highway patrol officers, as well as the ultimate delegation of authority, e.g., the use of deadly force. Effective selection is therefore considered mandatory by patrol management and thorough evaluation of the efficacy of those selection procedures should be conducted.

The five subtests that form the "composite" score of the Highway Patrol Officer selection test are a written test, the Multijurisdictional Police Officer Examination (Rosenfeld and Thorton, 1976), and four subtests developed by the Oklahoma Department of Public Safety, i.e., the Biographical Background Test, the Driving Test, the Oral Examination, and the Physical Ability Test. The purpose of this research is to determine the relationship of these five subtests to job performance, as measured by highway patrol officers' annual Performance Rating scores.

Definition of Terms

Applicant is a term that describes people who have made formal application for specific jobs. The applicants described in this study are people who have applied for the job of an Oklahoma Highway Patrol Officer, and who are participating in the competitive selection process.

Biographical Background Examination is a term used to describe a personnel selection instrument developed by the Oklahoma Department of Public Safety to

gather information about the background of potential Highway Patrol Officers. The instrument has defined dimensions for which a field investigator gathers data and assigns point values using specific forms and methodologies. The summary score derived from this instrument is intended to be a numerical representation of the potential officer's moral character.

Driving Test is a term used to describe a personnel selection instrument developed by the Oklahoma Department of Public Safety to assess a potential Highway Patrol Officer's ability to successfully perform a set of automobile driving maneuvers. The potential officer receives score values for specific driving maneuvers and the summary score is intended to be a numerical representation of the person's driving ability.

Highway Patrol Officer is a term that describes job incumbents who are currently employed by the Oklahoma Department of Public Safety to perform the duties assigned to the established job classification of Highway Patrol Officer. They may alternately be referred to as troopers.

Job Analysis is a term that describes the systematic process of collecting and making certain judgements about all the pertinent information relating to the nature and performance of a specific job.

Oral Examination is a term used to describe a personnel selection instrument developed by the Oklahoma Department of Public Safety to assess a potential Highway Patrol Officer's interpersonal and interactional skills. The instrument is a personal interview in which a panel of examiners assigns score values to verbal and nonverbal responses. The potential officer's summary score from this instrument is intended to be a numerical representation of the person's interpersonal and interactional skills.

Performance Rating is a term that describes a qualified, quantified, and numerically represented evaluation of an on-the-job performance of a specific

employee covering a stated period of time. The officer's supervisor compares the job performance of the employee to established performance requirements for specified job activities and assigns a numerical score to that job performance. The supervisor uses a rating form and methodology developed by the Oklahoma Department of Public Safety. The performance rating score of each officer is intended to represent a summary value of that officer's job performance for a specified time period.

Physical Ability Test is a term used to describe a personnel selection instrument developed by the Oklahoma Department of Public Safety to assess potential Highway Patrol Officer's physical and motor abilities. The instrument is a set of specific physical activities potential officers must attempt, for which demonstrated performance receives specific score values. The potential officer's summary score from this instrument is intended to be a numerical representation of the person's physical abilities.

Written Test is a term used to describe the Multijurisdictional Police Officer Examination. The MPOE is a paper and pencil test administered to potential Highway Patrol Officers and intended to assess the subjects cognitive/intellectual abilities. The obtained score is intended to represent the person's intellectual ability.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In personnel testing, the selection hypothesis is that attributes of job applicants, as measured, can be used to predict future proficiency if the applicants are hired. One must understand that one does not measure objects or people; one measures attributes of objects or people (Guion, 1976). Employment decisions require the making of predictions, whether the predictions are made from mathematical equations or by intuition. The concern therefore, is with problems in predicting job success from test scores. In personnel selection, the practical value of measurement depends, not on how well it measures a specified attribute, but on how well it predicts future performance on some other variable. Although the origins of the attempts to measure the attributes of people are lost in antiquity, Dubois (1966) cites examples of civil service examinations prevailing in the Chinese empire for some three thousand years.

Employment testing is probably as old as employment itself. Yet, only in the nineteenth century when the U.S. government began to adopt standardized tests to select civil servants, particularly after World War I when the U. S. Army began unprecedented experiments in group testing to select and classify military recruits, did personnel testing emerge on the modern scale that we recognize today (Hale, 1982). Tenopyr (1981) cites a 1975 survey which reported that 60% of employers with more than 25,000 employees did at least some testing, whereas

only 39% of employers with fewer than 100 employees use tests. She goes on to point out that in the public sector 36 states have statewide merit systems and the other 14 have merit systems for agencies that receive federal funds. Research by Savas and Ginsburg (1978) suggests that the Merit systems cover 95% of all permanent federal (civilian) employees, all state and county employees paid by federal funds, most state employees, many county employees, most employees in more than three-fourths of American cities, and almost all full-time policemen and firemen.

Quaintance (1981) suggests that about three-fourths of the 526 merit systems surveyed use tests of some sort. It appears that employment testing is more influential in the public sector than in the private sector.

Police Personnel Selection History

Effective selection of law enforcement personnel is probably one of the most important and serious challenges facing the psychometrician or test developer in the contemporary world of personnel selection (Burkhart, 1980). It is not surprising then that the effective screening and selection of law enforcement officers in our complex society has become one of the most critical, controversial, time consuming, and costly issues facing law enforcement administrators (McCreedy, 1974).

While the efficient and effective selection of law enforcement personnel may require rigorous empirical research--such has not always been the case. Kent and Eisenberg (1972) critically reviewed research on the selection of law enforcement officers. On the basis of this review they concluded that:

..a usefully valid and unbiased procedure for selecting police officers has not been demonstrated as yet (p. 22).

Recommendations of standards for the selection of law enforcement officers were outlined in 1973 in the Final Report of the NATIONAL ADVISORY COMMISSION ON CRIMINAL JUSTICE STANDARDS AND GOALS (1973). These Standards recommended that every Police Agency should: "...employ a formal process for the selection of qualified police applicants. This process should include a written test on mental ability or aptitude, an oral interview, a physical examination, a psychological examination, and an in-depth background investigation (pp.337-341)."

As late as 1977, Spielberger (1977) stated that although most police agencies currently use a number of different predictor measures, and many selection studies have employed combinations of predictors, relatively little objective evidence is currently available with respect to the validity of these procedures as predictors of effective performance in carrying out the diverse and complex duties of a police officer (Spielberger, 1977).

In another review of the police selection literature, Spielberger (1979) noted that relatively few studies were published prior to 1970. He also concluded that Kent and Eisenberg (1972) were essentially correct in stating that behavioral scientists had contributed little to police selection methodology. Additionally, as Kent and Eisenberg have noted, the methodology in many police selection studies was faulty, the statistical analyses were often inappropriate, a cross-validation of research findings was rare, and programmatic research was lacking with few exceptions.

In contrast, Lefkowitz (1977) provides an extensive review of industrial-organizational psychology and the police selection literature. He concludes that 1) psychological screening and prediction procedures are increasingly being tested

and used as important components of sound police selection procedures 2) the validation of selection tests and other predictors is the most active area of police personnel research and represents a movement away from the "screening out" of the "unfit" on a priori standards and 3) many of those validation studies are flawed and do not culminate in practical selection procedures that can be implemented.

In a study to develop a psychological screening device for the Birmingham, Alabama Police Department, Shealy (1971) refers to the "paucity" of predictive studies in the literature. Further, "the literature on police selection generally was scarce, but predictive validation of personality assessment techniques was even more hard to find" (p. 95). In Shealy's study, multiple regression was used to evaluate the predictive validity of the Minnesota Multiphasic Personality Inventory, the Strong Vocational Interest Blank and the Eysenck Personality Inventory on global "good policemen--poor policemen" ratings of all 600 uniformed patrolmen in the department. Shealy described the results of the multiple regression analysis as encouraging for an empirical prediction approach but used a traditional clinical assessment approach to screen applicants pending cross-validation of the empirical model. Regression analysis data were not provided in this study.

The activities of personnel selection have been extensively reviewed in various editions of the Annual Review of Psychology (Dunnette and Borman, 1979). Zedeck and Cascio (1984) cite Boehm's (1982) review of criterion related validity studies published in the Journal of Applied Psychology and Personnel Psychology between 1960 and 1979.

She concluded that there has been (a) an absolute and relative decline in the volume of reported validation research, (b) an increase in average sample size, (c) a decline in proportion of studies using supervisory ratings as criteria, (d) a de-emphasis on studies using aptitude tests as predictors, (e) greater use of predictive research designs, and (f) a constant absolute validity coefficient equal to .22 (p. 447).

While the total number of criterion related validity studies has been declining, this review of literature reveals an increase in the number of criterion related validity studies for police selection.

Predictors and Criteria in Police Selection

Validation studies of police selection methodologies center on various components of the selection procedure or on the criterion itself. Frequently, studies have been related to the background tests, written tests, psychological tests, physical ability tests or supervisor's ratings as performance criteria.

Burkhart (1980), argues that traditional police selection methods that do not use psychological screening are not as effective because those selection procedures will not determine behavioral outcomes. He contends that the rather complex interactions between entering personality characteristics and organizational and social structures (the police organization and the peer social structure) will determine the behavior of new police officers. Ash and Kroeker (1975), in a review of the literature about performance appraisal state, "The criterion remains the weak link in the chain. The art has largely remained status quo ante. We do not seem to do better in 1973 than our ancestors did in 1917 (p. 483)."

Kent and Eisenberg (1972) also recognized the criterion (usually the performance rating) as one of the major stumbling blocks to improved police selection procedures. They label police on-the-job performance as unquestionably

multidimensional and point out that it must be considered as such in selection system development.

Before the current Oklahoma Highway Patrol selection battery was adopted, an extensive and comprehensive job analysis of the Oklahoma Highway Patrol officer's job was conducted. The job analysis data were also utilized when the current Highway Patrol Officer Performance Rating (OHP80-20-03), a multidimensional rating, was developed.

In a review of police selection literature, Poland (1978) cites the efforts of Terman, in 1917, as the earliest application of intelligence testing in an effort to describe the characteristics of police officers. He also notes the assertion of Blum, in 1964, that most civil service tests for the selection of police officer were, in fact, measures of basic intelligence and that the earliest recorded study on the effectiveness of mental tests used for police selection was conducted by Martin in 1923. Poland (1978) also suggested the need for multivariate research to look at many predictors and criteria simultaneously.

Concerning the validity and appropriateness of current procedures, McCreedy (1974) comments that selection of the police officer is probably the most critical part of the law enforcement process. Morris (1979) reminds us that job relatedness must be a part of any selection process. However, as McAllister (1970) has observed, research has indicated that no selection process can accurately predict success or failure over a police officer's entire career.

Professional and Legal Considerations for Police Selection

No review of research related to police personnel selection would be complete without reference to contemporary professional and legal requirements. Division 14 of the American Psychological Association is the

Industrial/Organizational Psychology Division. As such, it sets the professional standards for the practice of personnel selection in the psychological profession. Division 14 published Standards of Education and Psychological Tests and Manuals (1985), the professional guidelines for psychologists in the development of tests for assessment and selection.

The two other contemporary developments affecting the practice of personnel selection are laws and guidelines (passed or adopted) and current case law. The most significant laws referring to or regulating personnel selection are the Civil Rights Act of 1964 and the Equal Employment Opportunity Act of 1972. The most significant guidelines adopted are the federal Uniform Guidelines on Employee Selection Procedures, adopted in 1978. The Guidelines required that selection procedures be evaluated for evidence of adverse impact. Adverse impact is defined in the Guidelines as "A selection rate for any racial, ethnic or sex group which is less than four-fifths (4/5 or eighty percent) of the rate for the group with the highest rate. . ." (Federal Register, 1978). Any selection procedure that results in adverse impact must be abandoned, changed in application to eliminate the adverse impact or proved to be job-related in compliance with the requirements of business necessity. Proof of job relatedness must be in the form of acceptable evidence of validity. The Guidelines also go into great detail concerning validation methodology and documentation requirements. The most significant court cases regulating the activities of personnel selection are *Griggs v. Duke Power Co.* (1971), the first major challenge to employment tests; *Albermarle Paper Co. v. Moody*, in which the methodology of a validation procedure was successfully attacked; *Washington v. Davis*, concerning a written personnel test; and *Guardians Association of New York City v. Civil Service Commission*, 1980, relating to the "different" types of validation, i.e., content, construct, criterion. Explanation and discussion of the

implications of these cases are outside the scope of this research, except to note that persons working with or studying personnel selection since 1964 must be familiar with them and proceed accordingly (Minor & Minor, 1978; Novick, 1982).

Use of Regression Analysis in Police Selection

The use of multiple regression as an analytical tool for the social sciences has increased significantly in the 70's and 80's compared to the 50's and 60's. Authors of texts on educational research (Gay, 1981), statistics, (Guilford & Fruchter, 1978) and psychological testing, (Cronbach, 1970) have devoted sections or chapters to the efficacy of multiple regression techniques. Numerous studies using multivariate techniques are appearing in professional journals, and one specific journal, the Journal of Multivariate Research, is dedicated to this type of research. Wherry (1975) supports the use of multiple regression analysis prediction studies, traces the history of multiple regression and its applications, and warns that problems of overfitting and shrinkage are evident in the "modern" least squares models such as discriminant analysis, canonical correlation, and multivariate analysis of variance, just as they have been in multiple regression. Considerable research has been conducted on the nature of multivariate techniques: Laughlin (1978), and Pruzeh and Fredrick (1978) deal with weighting coefficients in linear models, Cattin (1980) discusses the distinction between estimating population multiple correlation coefficients for the prediction model or the correlation model, and Dawes (1979) argues in favor of using equal weights when linearly combining variables for the purpose of making decisions. Remus (1980), however, cautions against using Dawes recommendations in applied situations and presents examples of predictions in selection situations where a

unit rule is inferior to an optional regressional rule. Cattin (1978) outlines a procedure which would allow personnel researchers to decide between equal weights and regression weights. In a study of the relationships among criteria of police performance, Cascio and Valenzi (1978) found that supervisory ratings were linearly predictable from objective performance indices and concluded that unit weights were inferior to regression weights. Bertram (1975), studying the prediction of police academy performance and on-the-job performance from police recruit screening measures, found multiple regression to be a good approach to establish the relationship between selection procedures and performance.

Flynn and Peterson (1972) compared the use of "intuitive" weighting of predictor variables of police selection devices to a regression weighting. They found that the regression analysis provided different and more efficient predictors of job performance. The three predictors (or police officer selection devices) used were a Training and Experience form (similar to the Oklahoma Highway Patrol Biographical Background Test), a score on the Public Personnel Association Police Officer Test and an Oral Interview score. The predictors were weighted 10%, 40%, and 50% respectively. The criterion was the final score of each recruit at the completion of the training. Results of the regression analysis (stepwise regression) revealed that the best single predictor was the Training and Experience score and that the written test and oral examination do not add significantly to the prediction model.

Summary

The theory of personnel selection is based on the prediction of future performance (Guion, 1980). In the last sixty years, an extensive methodology has grown around the attempt to assess various attributes and potentials of people and making predictions of their future performance based on those

assessments. The profession of psychology has recognized personnel selection as a legitimate arena of scientific inquiry and research and by teaching it in colleges and universities, publishing professional journals in which to share and evaluate its research and establishing Division 14 of the American Psychological Association.

Police personnel selection has rapidly come on the scene in the last ten years as an important subarea of personnel assessment in general (Kent and Eisenberg, 1972; Lefkowitz, 1977; and Spielberger, 1977). Research on police selection has been conducted on a variety of topics including studies involving the use of multiple predictors (Spielberger, 1977; Shealy, 1971; Bertram, 1975; and Elam, 1981). Researchers (Wherry, 1975; Bertram, 1975; Elam, 1981) and theoreticians (Gay, 1981; and Guilford and Fruchter, 1978) support the use of multiple regression to evaluate the efficacy of multiple predictors.

The Oklahoma Department of Public Safety is currently using multiple predictors to select Highway Patrol officers—one of the most dangerous and sensitive jobs in state government. To date no test of efficacy of the current selection methodology has been conducted. Thus, it is the purpose of this study to conduct a stepwise multiple regression analysis of the current Highway Patrol selection battery, to evaluate the predictability of Highway Patrol officers' on-the-job performance as measured by their Annual Performance Rating scores.

Research Questions

Specifically, this researcher will examine data obtained from the Oklahoma Department of Public Safety to answer the following questions:

1. Does the composite selection score currently used provide a statistically significant predictor of job performance?

2. What are the contributions of individual predictors to the composite score?
3. Do the predictor variables e.g., the written test, the driving test, the physical ability test, the oral examination, and the biographical background examination provide a statistically significant prediction of job performance?
4. Is there an empirically derived set of weights for predictors which would provide improvement in prediction of annual performance rating scores over the arbitrarily chosen weights currently used?

CHAPTER III

METHOD

Sample

The typical method of selection and hiring of Oklahoma Highway Patrol officers has been via annual Patrol Academies. As the training of an Oklahoma Highway Patrol officer is time consuming, extensive and very expensive, selection is equally extensive, thorough, and competitive. Prior to the start of the training academy, a period of widespread recruitment and exhaustive selection takes place.

Those candidates selected will go through a training process not unlike military basic training in which the fundamentals necessary to becoming an Oklahoma Highway Patrol officer are taught. All applicants for any given Patrol Academy are subjected to the selection battery as a group, at the same time (it may cover several days), under the same conditions. Hence, it is logical to examine particular Patrol Academy graduates as intact groups of subjects.

The population from which the sample was drawn was all currently employed Oklahoma Highway Patrol Officers who were selected by the battery of selection procedures currently in use.

The subjects of this study were all graduates of the 39th Oklahoma Highway Patrol Training Academy, 1982, who were still on the job as Oklahoma Highway Patrol Officers at the time of the study. The sample of 57 included 57 males and 0 females. Six of the subjects were Black males. All others were white males.

All subjects met the following statutory and special requirements:

EDUCATION AND EXPERIENCE:

(Statutory Requirement: 47 O.S. § 2-105 a & g, 1983 Supplement)

(a) No person shall be appointed to the Oklahoma Highway Patrol Division unless at the time of the appointment, the person shall be a citizen of the State of Oklahoma, and shall have been such citizen for a period of at least two (2) years next preceeding the date of appointment, or for a lesser period of time at the discretion of the Commissioner; shall be of good moral character; no less than twenty-three (23) years of age; and shall possess a minimum of thirty (30) semester hours from an accredited college or university.

(g) The maximum age for the initial employment of any person employed as a member of the Oklahoma Highway Patrol Division shall be thirty-five (35) years of age.

SPECIAL REQUIREMENTS:

Applicants must possess physical and mental stamina adequate to perform the duties of the position; a willingness to be on call 24 hours a day, a willingness to travel frequently and be away from home for extended periods of time; a willingness to accept the physical discomforts and/or dangers inherent in the work.

Applicants must meet and pass additional selection criteria, such as a polygraph test, psychological test, a physical ability test, a driving test, an oral interview, and a background investigation, all as established and prescribed by the Commissioner of Public Safety as authorized by Title 47 & 2-105 (a) 1983 Supplement.

Instruments

Under Oklahoma law, specifically 47 O.S. § 2-105(a). 1983 Supp., the Commissioner of Public Safety has the authority to specify what selection devices will be used to select uniformed members of the Oklahoma Highway Patrol. Various commissioners have exercised this authority since 1977. Accordingly, the selection procedures used since that time to select Oklahoma Highway Patrol officers are those designated by the Oklahoma Department of Public Safety rather than the Oklahoma Office of Personnel Management, the agency normally

responsible for developing and providing selection systems for Oklahoma state agencies under its jurisdiction.

A Test Battery is used to select potential Highway Patrol Officers and consists of five (5) separate tests that are administered, scored and combined into a Composite Score. The five subtests are the Written Test, the Biographical Background Test, the Driving Test, the Oral Examination, and the Physical Ability Test.

The Written Test is the Multijurisdictional Police Officer Examination (MPOE) (Rosenfeld and Thornton, 1976). The MPOE is a standardized, written examination of 150 multiple choice (4 choices each) items, designed to assess cognitive/intellectual abilities. The examination is administered under specified, standardized conditions. The test time limit is 2.5 hours. The subjects answer questions on a standardized, machine-scored answer sheet. All answer sheets with failing scores or perfect scores are double-checked by hand.

The Multijurisdictional Police Officer Examination (MPOE) was developed by the Educational Testing Service in 1976 for the International Personnel Management Association and the International Association of Chiefs of Police. Content validity was established with an extensive multijurisdictional job analysis. The Oklahoma Highway Patrol helped establish local content validity by conducting a transportability study as specified in the MPOE Technical Report. An MPOE study guide is provided to each subject prior to test administration. The study guide enhances test fairness, reduces undesirable influences of reading ability, and provides practice questions. Subjects turn in their study guides immediately prior to the test administration. Successful empirical validation at two sites produced validity coefficients (Rosenfeld and Thornton, 1976): $n=143$, $r=.20$, $n=81$, and $r=.51$. Data on reliability are not available from ETS.

The MPOE contains 15 items in each of the following areas: Verbal Comprehension; Spatial Scanning; Visualization; Semantic Ordering; Memory for Ideas; Spatial Orientation; Problem Sensitivity; Induction; Memory for Relationships; Paired Associates Memory, for a total of 150 items.

The candidate's obtained raw score is converted to a percent score then multiplied by .25 to yield a weighted score that is added to the composite score. No copy of this test nor any other predictor is included with this thesis because they are currently in use and because of legal and contractual requirements with the Department of Public Safety and the International Personnel Management Association.

The Biographical Background Examination (labeled Investigator's Interview Report by the Oklahoma Highway Patrol) is a report on which designated "Field Investigators" (Senior Highway Patrol members) enter findings and data for each of ten separate criteria about subject's background activities and other factors. Specified criteria are not listed because of their classified and confidential nature. The Biographical Background Examination is conducted by senior Highway Patrol personnel, selected and trained to conduct background examinations on a specified form with specified scoring instructions. The same information is solicited and evaluated for all subjects. The Biographical Background Examination is rated from 0 to 10 across the whole report. Separate criteria are not scored. The whole report is assigned a value of 0 to 10. The Biographical Background Examination score for each subject is multiplied by 1.5 to yield a weighted converted score that is added into to the composite score. No reliability or validity data are available for this test.

The Driving Test is a specified automobile driving (performance) test designed and conducted by trained Drivers License Examiners of the Oklahoma Department of Public Safety. The test is designed to assess an automobile

operator's ability to safely and correctly (according to Oklahoma Law and Driving Code) execute a standardized set of 49 automotive maneuvers. Some maneuvers are repeats with variations, e.g., left turn/right turn. All subjects execute the same set of maneuvers under the same conditions. In each test, a Drivers License Examiner rides with the subject, verbally informs the subject what maneuvers to perform, observes the performance of the maneuver, and grades each effort on a "deduct" point system. If the maneuver is performed correctly, 0 points are deducted. Two other qualities of less than correct performance may be scored, i.e., "fair" or "poor" performance. The points deducted value for either fair or poor performance is listed on a Driving Test summary sheet and the examiner circles the level of performance (points deducted) for each required maneuver. For example:

TABLE I
DRIVING TEST SCORE SHEET
Check Marks Show Points Off For Errors

Maneuver	GOOD	FAIR	POOR
Park Parallel	0	3	6
Park on Hill	0	1	2
Start on Hill	0	2	4

The points deducted for each required maneuver are then summed across all required maneuvers and that sum subtracted from 212, the total possible correct if no errors are made on any maneuver. There is no minimum passing point

required for this test. The applicant's raw score is multiplied times .118 to yield a converted score for contribution to the composite score. No reliability or validity data are available for this test.

The Oral Examination is an examination developed by the Department of Public Safety to assess important interpersonal and interactional dimensions they feel cannot be effectively assessed by traditional or existing paper and pencil tests or commercial instruments. The Oral Rating Form is a forced choice trait rating scale on which the interviewer selects a value to represent the applicant's verbal response to a specified rating scale "trait" or criterion. The traits and their value ranges are:

- 1. Alertness 0 to 15
- 2. Communication of Ideas 1 to 15
- 3. Communication Skills 1 to 10
- 4. Judgement Style 1 to 20
- 5. Judgement Under Stress 1 to 20
- 6. Self Command 1 to 10
- 7. General Personality Description 1 to 10

Some behavior descriptors are provided (they are omitted here because of test security) and scoring anchors (value range brackets) are indicated for each of the seven traits. An example is given in Table II:

TABLE II
ORAL EXAMINATION RATING SCALE

2. COMMUNICATION OF IDEAS. Descriptors or anchors would be listed in this space.														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Poor			Average					Above Average				Outstanding		

The Oral Examination is a specified interview conducted by a three member committee of senior Highway Patrol members, selected and trained to conduct oral examinations. The committee consists of a Highway Patrol Command Officer and two other Highway Patrol Officers designated as oral exam committee members. The committee interviews and rates all applicants using the trait based rating scale, administered under the same conditions. Each of the three (3) interviewers rates each subject interviewed against the traits and values specified on the standardized form. The separate values are summed across the seven traits and each subject receives a total score ranging from 1 to 100 from each interviewer. The three total scores (for a specific subject) are then arithmetically averaged by the presiding officer of each interview committee and assigned as an average score to each subject. Each subject's averaged oral examination score is multiplied by .25 to yield a weighted score that is added into the composite score. There is no minimum score necessary to be deemed passing for this examination. No reliability or validity data are available for this test.

The Physical Ability Test was developed by the Department of Public Safety to assess subjects' performance on physical dimensions designed to indicate degrees of physical conditioning, ability, strength, mobility, flexibility, speed, endurance, reaction time, and stamina. The Physical Ability Test is a specified test of fifteen separate physical activities all subjects must perform. Physical Ability Tests are conducted by professionals from the Training Division of the Oklahoma Department of Public Safety. All subjects are required to perform (attempt) the same activities at the same site under standardized conditions. They are observed by examiners (some activities are timed) and scored according to specified instructions.

Responses which exceed indicated numbers get the next higher values. A bench press of 156 pounds would get 5.07 points. A subject's response on each of the 15 separate activities is assigned a specified score value from .38 to 6.25. As the Oklahoma Department of Public Safety wanted the final score on the Physical Ability Test to equal 100 and there are 15 activities with a maximum value of 6.25 each, ($15 \times 6.25 = 93.75$), 6.25 points are awarded to every subject. Values are added across the 15 activities and a resulting score ranging from 6.25 to 100 is assigned. This score is multiplied by .10 to yield a converted score to be added into the composite score. There are no reliability or validity data available for this test. Although each separate activity has an absolute required minimum score (performance level) there is no required minimum score for the total ability test.

The criterion (dependent variable) is a multidimensional performance appraisal system titled Performance Rating OHP80-20-03. It was developed and used by the Oklahoma Department of Public Safety to periodically evaluate the job performance of Highway Patrol officers in a manner that accurately and effectively reflects each employee's performance on the job for a specified time period. The performance dimensions and point value ranges are:

1. Job Knowledge.--An objective, multiple choice, job knowledge test of 75 possible points--1 to 20 points

Points given on this trait are prorated according to the score made on the test. For example, a score of 61 on the job knowledge test with a maximum possible score of 75 would give 16.3 points on this trait ($61 \div 75 = .813$; $.813 \times 20 = 16.26$; 16.26 rounded to nearest tenth = 16.3 points). A perfect score on the test would give all 20 points possible on this trait. This methodology is used because managers of the Highway Patrol contend it effectively relates the performance level of each trooper to the measured

performance level of the division to which the trooper is assigned. The performance level for separate dimensions will vary from division to division.

2. Reports--1 to 10 points

- a. The average number of all required reports returned for correction (due to illegibility, incompleteness, or inaccuracy) per trooper for the covered period is determined in each troop. A report not submitted when required is counted the same as a report returned for correction.
- b. If a trooper being rated received more reports back for correction than the troop average, points are deducted according to the percentage above the troop average; otherwise all 10 points possible for this trait are given. For example: if the troop average is 25 reports returned and the trooper had 31 returned (six more than the troop average), 7.6 points are given on this trait ($6 \div 25 = .24$; $.24 \times 10 = 2.4$; $10 - 2.4 = 7.6$). Any points deducted must be documented.

For more detail of individual dimensions see the copy of the Performance Rating form and rating instructions in the Appendix.

Oklahoma Highway Patrol Officers are rated by their immediate supervisor at least once a year. Supervisory personnel are given formal training in conducting performance reviews and the Highway Patrol has an exhaustive set of written procedures and performance standards for job tasks and required performance. The immediate supervisor will assign a value to the trooper's performance for each dimension according to the standardized instructions, formal training and performance standards and sum the scores across the eight dimensions. The final score range of job performance is 1 to 100. No reliability or validity data are available for the Performance Rating.

Procedure

After permission to conduct the study was obtained from the Oklahoma Department of Public Safety, the first effort was to define the sample. The population and sample selection have already been discussed. One condition of permission was a security and confidentiality guarantee for Oklahoma Department of Public Safety selection instruments, data, and subjects. Since all testing had been completed prior to the officers selection and employment, raw test score data and on-the-job performance ratings were secured from Oklahoma Department of Public Safety records. Copies of the predictor and criterion instruments were also secured and reviewed extensively before the data was analyzed. For each subject, raw score data for the following tests were obtained:

39th Academy, 1982

1. Composite Score (combination of five subtest scores)
2. MPOE Raw Score
3. Background Raw Score
4. Driving Test Raw Score
5. Physical Ability Raw Score
6. Most Current (March 1985) Performance Rating Score

The data were carefully scrutinized for missing, erroneous or apparently incongruous entries. Each subject was assigned a code number and names of subjects were removed from data to be analyzed. Each subject's code number, test data and performance rating data were encoded into a computer file and the data were then processed using SAS STEPWISE and MAXR multiple regression programs. The results were examined for accuracy, content and interpretation.

Limitations of the Study

Problems of using supervisory rating as criteria are well cited in the literature (Spielberger, 1977; Ash and Kroeker, 1979; and Kent and Eisenberg, 1972). Rambo (1982) describes the dynamic nature of criteria, criterion relevance and criterion contamination, specifically opportunity bias and knowledge of predictor bias, as examples of problems with criteria. Despite the lack of reliability data for the OHP80-20-03 Performance Rating for Highway Patrol officers, it was developed and verified by a thorough job analysis. It is the only measure of job performance used by the Oklahoma Department of Public Safety for Highway Patrol officers and available for use as the criterion for this study. If the reliability of the performance rating is low the validity will be even lower. If the criterion validity is low the results of the regression analysis will be questionable. Predictors involved in the study have been specified under the statutory authority of the Commissioner of Public Safety. No reliability or validity data for these tests are available. Again, reliability will limit validity of the predictors. If predictors and criteria are unreliable any correlation that may exist will be artificially decreased. Score variance is mostly error variance which is known to distribute randomly. If variance is random, predictors and criteria won't correlate. The sample size was dictated by the limitations of subjects that have taken the current battery of predictor tests and have current performance rating data available. Accordingly, some restrictions of range and shrinkage may have occurred. Restriction of range would artificially reduce the size of obtained correlation coefficients.

Also, the subjects in this study were all currently employed Oklahoma Highway Patrol officers that were selected based on the currently used test battery developed in 1982 and whose on-the-job performance was rated by

Performance Rating OHP80-20-03. Therefore, the findings of this study may or may not be generalizable outside of this population.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to test the efficacy of the current Oklahoma Highway Patrol officer test battery in predicting on-the-job performance as measured by the annual performance ratings. To determine this efficacy, a stepwise multiple regression analysis of predictor variables on performance ratings was conducted.

The results of the computation of data presented in Tables IV, V, and VI will be discussed in evaluation of the following four research questions:

1. Does the composite selection score currently used significantly predict job performance?
2. What are the contributions of individual predictors to the composite score?
3. Do the individual predictor variables significantly predict job performance?
4. Is there an empirically derived set of weights for predictors which would improve prediction of performance ratings over the arbitrarily chosen weights currently used?

The computed variable means and standard deviations are provided in Table IV.

TABLE IV
 VARIABLE MEANS AND STANDARD
 DEVIATIONS IN THE
 PRESENT STUDY

VARIABLE	N	MEAN	STANDARD DEVIATION
COMPOSITE	57	84.19	5.07
WRITTEN TEST	57	139.42	6.10
BACKGROUND EXAM	57	9.23	1.16
DRIVING TEST	57	193.66	9.39
ORAL EXAM	57	67.81	15.25
PHYSICAL ABILITY	57	69.63	8.41
PERFORMANCE RATING	57	85.90	6.25

Research Question #1.--Does the composite score currently used significantly predict job performance? The correlation of .005 between the composite score and the performance rating indicates that the composite score does not significantly predict job performance.

Research Question #2.--What are the individual contributions of predictors to the composite score? Four of the five separate predictors have statistically significant correlations with the composite score (see Table V). These results suggest that all predictor variables except the Physical Ability Test are significantly related to the composite score.

TABLE V
PEARSON r COEFFICIENTS FOR VARIABLE
SCORES IN PRESENT STUDY

	Performance Rating	Written Test	Background Exam	Driving Test	Oral Exam	Physical Ability	Composite
Performance Rating	1.000	.386**	-.049	.207	-.082	-.079	.005
Written Test	--	1.000	.170	.172	.097	.145	.363**
Background Examination	--	--	1.000	.008	-.026	-.126	.350**
Driving Test	--	--	--	1.000	.063	.015	.304*
Oral Examination	--	--	--	--	1.000	.044	.836**
Physical Ability	--	--	--	--	--	1.000	.174
Composite	--	--	--	--	--	--	1.000

*p < .05

**p < .01

Research Question #3.--Do the predictor variables used significantly predict job performance? The results of the multiple regression analysis show only the written test to be a statistically significant predictor of job performance (see Table VI).

TABLE VI
RESULTS OF STEPWISE MULTIPLE
REGRESSION ANALYSIS
5 PREDICTOR VARIABLES ON
PERFORMANCE RATING

STEP	PREDICTOR	R ² INCREASE	F	p
1*	MPOE	.149	9.60	.00031

*No other predictors significantly improve the prediction of the one variable equation.

Research Question #4.--Is there an empirically derived set of weights for predictors which would improve prediction of annual performance ratings over the arbitrarily chosen weights currently used? Results of the STEPWISE multiple regression analysis show that of the five predictors currently used in the selection battery, the Written Test is the only test that significantly predicts job performance. The currently used arbitrary weights result in a composite score that does not significantly correlate with the criterion.

CHAPTER V

CONCLUSIONS

Effectiveness of the composite score as a significant predictor of job performance was determined by correlating the composite score and the performance rating. The empirical contribution of individual predictors to the composite score was determined by correlations of the various individual predictor scores and the composite score.

Accuracy in prediction of job performance by the predictor variables currently used by the Oklahoma Department of Public Safety was determined by comparing the set of predictor variable weights derived from the multiple regression analysis to the set of predictor variable weights currently used by the Oklahoma Department of Public Safety.

Evidence of an empirically derived set of weights for predictor variables that would provide improved accuracy in prediction of annual performance rating scores over the arbitrarily chosen weights currently used by the Oklahoma Department of Public Safety was inferred by comparing the results of the multiple regression analysis to the set of existing weights and variables used to predict annual performance rating scores. Existence of a different significant set of variables and equation weights on the multiple regression analysis was used to infer that an empirically derived set of weights for predictors would provide improved accuracy in prediction of annual performance ratings over the arbitrarily chosen weights currently used by the Oklahoma Department of Public Safety.

The effective selection of persons to become Oklahoma Highway Patrol officers has been a prime concern of the Oklahoma Department of Public Safety since the creation of the Patrol some fifty years ago. In the past twenty years, a society increasing in complexity has placed increasingly complex expectations on its law enforcement officers, as Elam (1983), Roberts (1984) and McCreedy (1974) point out. These developments have created an imperative for the evaluation of the efficacy of the selection process used to select Highway Patrol officers.

The Oklahoma Department of Public Safety is currently using multiple selection procedures to select potential Highway Patrol officers, reflecting the mandate called for by the 1973 National Advisory Commission on Criminal Justice Standards and Goals and the lead of other researchers (Shealy, 1971; Cascio and Valenzi, 1978; Flynn and Peterson, 1972). A test of efficacy of these multiple selection procedures is required, as Kent and Eisenberg (1972) and Lefkowitz (1977) point out.

The obtained correlation of .005 between the composite score and the performance rating, which is the measure of "success" of current Highway Patrol officers, suggests that the composite score is not doing what the Department thinks it is doing, i.e., contributing to the identification of potential applicants who will be successful on the job. The effective use of prediction selection requires significant relationships between predictors and criteria (Flynn and Peterson, 1972; Cascio and Valenzi, 1978; Guilford and Fruchter, 1978; and Gay, 1981).

Statistically significant correlations of the various predictors with the composite score (comp/oral = .836; comp/written = .363; comp/background = .350; and comp/driving = .304) lose importance in view of the lack of correlation of the arbitrarily weighted composite score with the performance rating ($r = .005$).

In fact, the one predictor that correlates highly with the composite score (the Oral Examination) does not correlate with the criterion. Additionally, the only significant predictor of the criterion (the Written Test) has a rather low correlation with the composite score and the criterion. Clearly, the relative influence of individual predictors on the composite score do not match the intent of the current Oklahoma Department of Public Safety model as indicated by the arbitrary weights.

The results of the Stepwise multiple regression analysis, as illustrated in Table VI, show that only one of the five predictor variables significantly predicts job performance. This result is similar to the findings of Remus (1980) and Flynn and Peterson (1972). The score on the written test is a better predictor of job performance than the currently used composite score. If the Oklahoma Department of Public Safety wishes to effectively use a set of multiple predictors, a scheme based on regression analysis to determine weights should be used in lieu of the current arbitrary weighting scheme. More importantly, the Department should use only variables which actually relate to job success. Perhaps an exhaustive review of the accuracy of multiple predictors used in other Highway Patrol jurisdictions might suggest a system that could be used by the Oklahoma Department of Public Safety.

Impacting on these conclusions are the realities that no reliability of validity data are available for the Driving Test, the Physical Ability Test, the Biographical Background Test, the Oral Examination, or the Performance Rating. Various researchers, e.g., (Ash & Krockner, 1975; Kent & Eisenberg, 1979) have cited problems with supervisor's performance ratings as criteria. These problems are unreliability, criterion contamination due to opportunity bias and rater subjectivity. It should be noted that the Oklahoma Department of Public Safety has attempted to content validate the various predictors (other than the written

test, which has been validated separately) and the performance rating by means of an extensive job analysis (Newport, 1980). These attempts to validate the predictors have not been adequate substitutes for determining reliability and validity indices. Performance rating data will soon be available for other groups of subjects (previous or subsequent training academy graduates) who were selected by the same battery of predictors examined in this study. This research can then be replicated with a larger N to correct for some range restriction, to cross-validate and examine for possible differences between groups. This would be consistent with recommendations from Shealy (1971), Flynn and Peterson (1972), and Elam (1983).

It should also be noted that the Commissioner of Public Safety has statutory authority to prescribe the selection procedures for Highway Patrol Officers. Research should be undertaken to determine the reliability and validity of each predictor and the performance rating. If this is done, the resulting prediction model could be further examined using multiple regression analysis, with the refinements mentioned, to test the efficacy of the predictor variables.

Continued use of the composite score to rank applicants does not appear to be an effective means of predicting success among Highway Patrol Officers. The failure of four of the five predictor variables to correlate with the criterion variable does not, however, imply that these variables are of no value. These variables may legitimately be used to identify applicants who are not appropriate for service in the Oklahoma Highway Patrol. Even though the Driving Test, the Oral Examination, the Biographical Background Examination, and the Physical Ability Test do not appear to predict job performance, they should be retained to screen for minimal levels of skills or attributes that the Oklahoma Department of Public Safety has determined are prerequisite to employment as a Highway

Patrol Officer. These predictors could be used as pass/fail and not used to rank applicants. As the predictor variables are now used, applicants should probably be ranked according to their scores on the Written Test, because it is the only significant predictor of job performance.

BIBLIOGRAPHY

- American Psychological Association, Division 14 Industrial and Organizational Psychology, Executive Committee, Principles for the Validation and Use of Personnel Selection Procedures, 1980.
- Ash, P. and Kroeker, L. P., Personnel selection, classification and placement. Annual Review of Psychology, 1975, 26, 481-507.
- Bersoff, D. N., Testing and the law. American Psychologist, 1981, 36, 1047-1056.
- Bertram, F. D., The prediction of police academy performance and on-the-job performance from police recruit screening measures. Unpublished doctoral dissertation. Marquette University, December, 1975.
- Boehm, V. R., Are we validating more but publishing less? (The impact of government regulations on published validation research--An Exploratory Investigation). Personnel Psychology, 1982, 35, 178-187.
- Burkhart, B. R., Conceptual issues in the development of police selection procedures. Professional Psychology, 1980, 11, 121-128.
- Cascio, W. F. and Valenzi, E. R., Relations among criteria of police performance. Journal of Applied Psychology, 1978, 63(1), 22-28.
- Cattin, P., A predictive, Validity based procedures for choosing between regression and equal weights. Organizational Behavior and Human Performance, 1978, 22, 93-102.
- _____. Estimation of the predictive power of a regression model. Journal of Applied Psychology, 1980, 65 (4), 407-414.
- Cronbach, L. J., Essentials of Psychological Testing, N.Y.: Harper & Row, 1970.
- Dawes, R. M., The robust beauty of improper linear models in decision making. American Psychologist, 1979, 34(7), 571-582.
- Dubois, P. H., Introduction to Psychological Statistics, N.Y.: Harper & Row, 1970.
- Dunnettee, M. D. and Borman, W. C., Personnel selection and classification systems. Annual Review of Psychology, 1979, 30, 477-525.

- Elam, J. D., Minnesota Multiphasic Personality Inventory and California Psychological Inventory as predictors of performance for a municipal and a state police agency. Unpublished doctoral dissertation, Oklahoma University, May, 1983.
- Federal Register. Uniform guidelines on employee selection procedures. Federal Register. August 25, 1978, 43, 38290-38315.
- Flynn, J. T. and Peterson, M., The use of regression analysis in police patrolmen selection. The Journal of Criminal Law, Criminology, and Police Science, 1972, 63(4), 564-569.
- Gay, L. R., Educational Research--Competencies for Analysis and Application, Ohio: Charles E. Merrill Publishing Co., 1981.
- Guilford, J. P. and Fruchter, B., Fundamental Statistics in Psychology and Education, N.Y.: McGraw-Hill Book Co., 1978.
- Guion, R. M., Recruiting, selection and job placement. Reprinted in (M. D. Dunnette, Ed.), Handbook of Industrial and Organizational Psychology, Chicago: Rand McNalley, 1976.
- Hale, M., Ability Testing: Uses, Consequences and Controversies--Part II, Washington D.C.: National Academy Press, 1982.
- Kent, D. A. and Eisenberg, T., The selection and promotion of police officers: A selected review of the literature. The Police Chief, 1972, 39, 20-29.
- Laughlin, J. E., Comments on "Estimating coefficients in linear models; It don't make no nevermind," Psychological Bulletin, 1978, 85(2), 247-253.
- Lefkowitz, J., Industrial-Organizational Psychology and the police. American Psychologist, 1977, 32(5), 346-364.
- McAllister, J. A., A Study of the prediction and measurement of police performance. Police, 1974, 14, 58-64.
- McCreeley, K. R., Selection practices and the police role. The Police Chief, 1974, July, 41-43.
- Miner, M. G. and Miner, J. B., Employee Selection Within the Law, Washington, D.C.: Bureau of National Affairs, 1978.
- Morris, H., Screening of police applicants: Issues of interviewing and psychological testing. The Police Chief, 1979, July, 27-28.
- National Advisory Commission on Criminal Justice Standards and Goals, U.S. Government Printing Office, Washington D.C., 1973.
- Newport, A., Attitudes and opinions of police training directors regarding higher education for law enforcement personnel, Unpublished masters thesis, Oklahoma State University, May 1980.

- Novick, M., Ability Testing: Federal guidelines and professional standards. Ability Testing: Uses, Consequences, and Controversies--Part II, Washington D.C.: National Academy Press, 1982.
- Poland, J. C., Police selection and the prediction of police performance. Journal of Police Science and Administration, 1978, 6, 374-393.
- Pruze, R. M. and Frederick, Weighting predictors in linear methods: alternatives to least squares and limitations of equal weights. Psychological Bulletin, 1978, 85(2), 254-266.
- Quaintance, M. K., Reading in Professional Personnel Assessment, International Personnel Management Association, Washington D.C.,: 1984.
- Rambo, W. W., Work and Organizational Behavior. N.Y.: Holt, Rinehart and Winston, 1982.
- Remus, W. E., and Jenicke, L. O., Unit and random linear models in decision making. Multivariate Behavior Research, 1978, 13, 215-221.
- Roberts, J., The relationship of higher education to Oklahoma Highway Patrol troopers performance. Unpublished doctoral dissertation. Oklahoma University. May, 1984.
- Rosenfeld, M. and Thornton, R. F., The Development and Validation of a Multijurisdictional Police Examination, N. J. Educational Testing Services, 1976.
- Savas, E. S. and Ginsburg, S. C., The Civil Service: A Meritless System? Current Issues in Public Administration, N.Y.: Martins Press, 1977.
- Shealy, A. E., The Minnesota Multiphasic Personality Inventory and the Myers-Briggs Type indication in police selection research. Proceedings of the National Working Conference on the Selection of Law Enforcement Officers, Washington D.C.,: 1977.
- Spielberger, C. D., A model for the selection of law enforcement officers. Procedures of the National Working Conference on the Selection of Law Enforcement Officers, Washington D.C.,: 1977.
- _____, Police Selection and Evaluation: Issues and Techniques, N.Y.: Hemisphere Publishing Co., 1979.
- Stahl, O. G., Public Personnel Administration, N.Y.: Harper & Row, 1971.
- Standards for educational and psychological tests and manuals, Prepared by a joint committee of the American Psychological Association, the American Educational Research Association, and the National Council on Measurement in Education (Cochairpersons, John W. French and William B. Michael). Washington, D.C.: 1985.
- Tenopyr, M. L., The reality of employment testing. American Psychologist, 1981, 36, 1120-1127.

Wherry, R. J. Sr., Underprediction from overfitting: 45 years of shrinkage. Personnel Psychology, 1975, 28, 1-18.

Zedeck, S. and Cascio, W. F., Psychological issues in personnel decisions. Annual Review of Psychology, 1984, 35, 461-518.

APPENDIX

PERFORMANCE RATING

Member Rated _____
(Rank) (Name) (Badge No.) (Troop)

<u>TRAITS</u>	<u>POINTS</u>
Job Knowledge (20 points possible)	_____
Reports (10 points possible)	_____
Firearms (20 points possible)	_____
Unit Care and Operation (10 points possible)	_____
Public Relations (15 points possible)	_____
Dependability (10 points possible)	_____
Personal Appearance (5 points possible)	_____
Enforcement or Work Program (10 points possible)	_____
Performance Score (100 points possible)	_____

SAMPLE

Strengths and Deficiencies of Rated Member:

Corrective Action Needed:

Period Covered _____

(Rater's Signature and Badge No.)

Rated Member's Comments:

Signature of Member Rated _____

Rating Accepted

I disagree with this rating and request an appeal.

Date Signed _____

Signature of Reviewer _____

Date of Signature _____

DEPARTMENT OF PUBLIC SAFETY
OKLAHOMA HIGHWAY PATROL

SPECIAL ORDER 84-2

SUBJECT: PERFORMANCE RATING SYSTEM

This order establishes the performance rating system by which the performance of Oklahoma Highway Patrol troopers shall be formally evaluated periodically.

This order consists of the following numbered parts:

- I. PERFORMANCE EVALUATION
- II. PERFORMANCE RATING SYSTEM

- I. PERFORMANCE EVALUATION

In an organization such as the Patrol, formal performance evaluation *is necessary*. Its objectives are to improve, and to provide an official record of, employee performance. As set out in General Policy Order 78-22, there are a number of valid administrative, supervisory, and employee uses of performance ratings. The performance rating system, established herein, is the official method of carrying out the policy of the Department, that the performance of individual members of the Patrol will be formally evaluated periodically. The rating system is the result of continuing effort to provide the best method of accurately and objectively evaluating employee performance.

- II. PERFORMANCE RATING SYSTEM

It is the responsibility of each troop commander to assure that performance ratings are properly made and processed, in accordance with the system set out below, for each trooper assigned to the troop under his command.

- A. *Frequency and period covered.*—Ratings shall be prepared and processed as often, and to cover such periods of time, as directed by the Chief's office. In all cases, the trooper shall be rated thirty (30) days prior to completion of probation, and at least once a year thereafter.
- B. *Form.*—The prescribed performance rating form (form number OHP80-20-03) shall be used for recording performance ratings. Ratings shall be prepared in quadruplicate (original and three copies). Each rating shall be signed by the supervisory officer who completed it. (A sample of the prescribed rating form is attached to this order.)
- C. *Rating performance—traits, criteria, and points possible.*—Each trooper's performance shall be evaluated and rated on each of the eight (8) traits set out below. A member's overall performance score shall be determined by totaling the points received for each of the eight traits. The maximum overall performance score possible is 100 points. The supervisory officer making a performance rating shall determine the points given on each trait in accordance with the criteria and points possible as follows:

SPECIAL ORDER 84-2

1. **Job Knowledge (20 points possible).**—A job knowledge test will be administered to all troopers for each rating period. Points given on this trait shall be prorated according to the score made on the test. For example, a score of 61 on a job knowledge test with a maximum possible score of 75 would give 16.3 points on this trait ($61 \div 75 = .813$; $.813 \times 20 = 16.26$ /16.26 rounded to nearest tenth=16.3 points). A perfect score on the test would give all 20 points possible on this trait.
2. **Reports (10 points possible):**
 - a. Points given on this trait are based on the *percentage of the rated trooper's reports that are returned for correction* (due to illegibility, incompleteness, or inaccuracy) as set out in Paragraph "b" below. Each accident report will be considered equal to four of any other type of report for the purposes of determining both the number of reports submitted and the number of reports returned for correction. A report not submitted when required will count the same as a report returned for correction.
 - b. With 10 points possible, points shall be given according to the **percentage of reports returned for correction** during the rating period, as follows: less than 0.5% = 10 points, 0.5% up to but not including 1.0% = 9 points, 1.0% up to but not including 1.5% = 8 points, 1.5% up to but not including 2.0% = 7 points, 2.0% up to but not including 2.5% = 6 points, 2.5% up to but not including 3.0% = 5 points, 3.0% up to but not including 3.5% = 4 points, 3.5% up to but not including 4.0% = 3 points, 4.0% up to but not including 4.5% = 2 points, 4.5% up to but not including 5.0% = 1 point, 5.0% or more = 0. Any points deducted must be documented.
3. **Firearms (20 points possible).**—For each rating period, all troopers will be required to fire the firearms course(s) prescribed for determining firearms ability (speed and accuracy). The prescribed method for scoring and recording scores shall be used for such firing. Points given on this trait shall be prorated according to the score fired on the prescribed course(s). For example, a score of 87 out of a possible maximum score of 100 would give 17.4 points on this trait ($87 \div 100 = .87$; $.87 \times 20 = 17.4$). A perfect score on the prescribed course(s) would give all 20 points possible on this trait.
4. **Unit Care and Operation (10 points possible).**—Points given on this trait are based on both care and operation of the Patrol unit. The trooper being rated shall be given the 10 points possible on this trait, to begin with. Then, if punitive disciplinary action has been taken against the trooper, during the rating period covered, as a result of failure to take proper care of a Patrol unit or negligence in the operation of a Patrol unit, points shall be deducted from those initially given, in accordance with the criteria set out below. Any points deducted must be documented.
 - a. Failure to take proper care of a Patrol unit: counseling report (with oral admonishment or reprimand) or letter of admonishment, deduct one (1) point; letter of reprimand, deduct three (3) points; cancellation of day(s) off, deduct five (5) points; suspension, deduct seven (7) points.
 - b. Negligence in operation resulting in a Patrol vehicle accident (as set forth in General Procedure Order 78-7): class "B" accident, deduct three (3) points; class "C" accident, deduct five (5) points; class "D" accident, deduct seven (7) points.

SPECIAL ORDER 84-2

5. *Public Relations (15 points possible):*

- a. Points given on this trait are based on the trooper's relations with other persons (the basic elements of Patrol public relations as listed in General Policy Order 78-29). The trooper being rated shall be given the 15 points possible on this trait, to begin with. Then, if punitive disciplinary action has been taken against the trooper, during the rating period covered, as a result of justified complaint(s) in the area of public relations, points shall be deducted from the 15 points initially given, in accordance with the criteria set out in Paragraph "b" below. Any points deducted must be documented.
- b. For each: counseling report (with oral admonishment or reprimand), deduct two (2) points; letter of admonishment, deduct three (3) points; letter of reprimand, deduct four (4) points; cancellation of day(s) off, deduct five (5) points; suspension, deduct all 15 points.

6. *Dependability (10 points possible):*

- a. Points given on this trait are based on dependability in punctuality and carrying out work assignments, in factuality of reporting, in time accountability, and in performance of sworn duties. The trooper being rated shall be given the 10 points possible on this trait, to begin with. Then, if punitive disciplinary action has been taken against the trooper, during the rating period covered, concerning dependability, points shall be deducted from the 10 points initially given, in accordance with the criteria set out in Paragraph "b" below. Any points deducted must be documented.
- b. For each: counseling report (with oral admonishment or reprimand), deduct two (2) points; letter of admonishment, deduct three (3) points; letter of reprimand, deduct four (4) points; cancellation of day(s) off, deduct five (5) points; suspension, deduct all 10 points.

7. *Personal Appearance (five [5] points possible):*

- a. Points given on this trait are based on the trooper's personal appearance (required standards are set out in General Policy Order 78-52, Part IV, Section 2.25 and General Policy Order 78-53, Part IV). The trooper being rated shall be given the five (5) points possible on this trait, to begin with. Then, if punitive disciplinary action has been taken against the trooper, during the rating period covered, as result of failure to meet required personal appearance standards, points shall be deducted from the five (5) points initially given, in accordance with the criteria set out in Paragraph "b" below. Any points deducted must be documented.
- b. For each: counseling report (with oral admonishment or reprimand), deduct one (1) point; letter of admonishment, deduct two (2) points; letter of reprimand, deduct three (3) points; cancellation of day(s) off, deduct four (4) points; suspension, deduct all five (5) points.

4

SPECIAL ORDER 84-2

8. *Enforcement or Work Program (10 points possible).*—Points given on this trait are based on the trooper's level of effort in enforcement or work program. The average (number of contacts, enforcement or work program) of the top ten percent of the troopers in each troop will determine the level of effort for that individual troop (field, turnpike or special services). All personnel on or above their troop level shall be given the 10 points possible on this trait. All others shall receive a percentage of the 10 points possible, equal to their percentage of the level of effort determined by their troop (level of trooper being rated ÷ troop level = number to be multiplied by 10 to determine the points to be given on this trait).
- D. *Review of Ratings.*—Each performance rating must be reviewed by, and receive the concurrence of, the troop commander before it will be considered completed. Each completed performance rating shall be reviewed with the member rated, by the rater (supervisory officer who prepared it). The member rated shall then sign the performance rating and check the appropriate square to indicate either the member's acceptance of the rating or disagreement with the rating and request for an appeal. Any appealed rating shall be forwarded through channels for resolution at the lowest possible level before it will be considered finalized.
- E. *Distribution.*—Finalized performance ratings shall be distributed as follows: the original will be forwarded through channels for placement in the trooper's personnel file, one copy will be given to the member rated, one copy will be placed in the troop 201 file of the member rated, and one copy will be forwarded to the Office of Personnel Management.

CANCELLATIONS:

This order supersedes and cancels Special Order 83-1.

EFFECTIVE DATE:

This order is effective 10 February 1984

EXPIRATION DATE:

This order expires 1 March 1985 unless continued by subsequent order.


CHIEF

DISTRIBUTION:

All Highway Patrol personnel.
All Lake Patrol personnel.
All Capitol Patrol personnel.
All Training Center Security personnel.

2

VITA

Joe L. Davenport

Candidate for the Degree of

Master of Science

Thesis: EVALUATION OF A SELECTION PROCEDURE MODEL
FOR SCREENING AND HIRING OKLAHOMA HIGHWAY
PATROL OFFICERS

Major Field: Applied Behavioral Studies in Education

Biographical:

Personal Data: Born at Huntsville, Texas, October 1, 1943, the son of J. R. and L. P. Davenport.

Education: Attended public elementary and junior high schools in Holdenville, Oklahoma. Graduated from Oklahoma Military Academy High School, Claremore, Oklahoma, May, 1961; Oklahoma Military Academy Junior College, May, 1964; attended Northeastern State College, Tahlequah, Oklahoma and received the degree of Bachelor of Arts in May, 1966; with a major in Psychology; completed requirements for the Master of Science degree at Oklahoma State University in December, 1985.

Professional Experience: Classification/Examination Analyst, Oklahoma Merit System, Oklahoma City, Oklahoma, 1969-1980. Assistant Director, Personnel Assessment Division, Oklahoma Office of Personnel Management, 1980-1985.

VITA

Joe L. Davenport

Candidate for the Degree of

Master of Science

Thesis: EVALUATION OF A SELECTION PROCEDURE MODEL
FOR SCREENING AND HIRING OKLAHOMA HIGHWAY
PATROL OFFICERS

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born at Huntsville, Texas, October 1, 1943, the son of J. R. and L. P. Davenport.

Education: Attended public elementary and junior high schools in Holdenville, Oklahoma. Graduated from Oklahoma Military Academy High School, Claremore, Oklahoma, May, 1961; Oklahoma Military Academy Junior College, May, 1964; attended Northeastern State College, Tahlequah, Oklahoma and received the degree of Bachelor of Arts in May, 1966; with a major in Psychology; completed requirements for the Master of Science degree at Oklahoma State University in December, 1985.

Professional Experience: Classification/Examination Analyst, Oklahoma Merit System, Oklahoma City, Oklahoma, 1969-1980. Assistant Director, Personnel Assessment Division, Oklahoma Office of Personnel Management, 1980-1985.