

A STUDY OF THE POTENTIAL USE OF THE
MANN ATTITUDE INVENTORY IN THE
SELECTION OF POLICE RECRUITS

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ABSTRACT

A STUDY OF THE POTENTIAL USE OF THE MANN ATTITUDE INVENTORY IN THE SELECTION OF POLICE RECRUITS

By

James Alec Sendo

Police agencies have been delegated the major responsibility for controlling and reducing traffic conflicts. The close relationship between police and traffic and between police officers and traffic violators indicate that a study of police personalities and police recruiting might lead to a more effective selection process and training program.

The purpose of the study was to determine the feasibility of using the Mann Attitude Inventory (MAI) in the selection of police recruits. Response to individual items, total scores, and sub-scores were used.

The four hypotheses tested were:

- Ho₁: There is a significant relationship between the responses to the individual items of the MAI of recruits who complete recruit school and the responses of those who do not complete the school to the same items.
- Ho₂: There are significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.
- Ho₃: There are significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.

Ho₄: There is a significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

Means and standard deviations of the total scores and sub-total scores of the MAI were computed. The chi square test of significance was used for testing individual items and the Sakoda Graph, shown in Figure 1, was used to determine the significance of the MAI.

Four additional tasks were performed. They were:

1. The reliability of the MAI was tested by comparing the responses of State Police recruits with the responses of Detroit Police recruits. Differences in recruiting policies and procedures are known to exist.
2. A profile of the attitudes and feelings of Michigan State Police recruits and officers was developed through an item analysis of the MAI.
3. A revised scoring scale for the MAI reflecting responses of Michigan State Police officers and recruits was established.
4. The consistency of Kenel's behavioral categories for a selected police population was established.

The sample population for this study consisted of 171 police recruits and twenty-five corporals and sergeants. The group of 171 State Police recruits were tested the first or second day of training at the East Lansing, Michigan, State Police Headquarters. The group of corporals and sergeants had returned to State Police Headquarters for leadership training. They were tested the first day of the school.

Two other groups of police recruits were tested and the results used in the additional tasks performed. Seventy-two Detroit Police recruits were tested during their third week of training at the Palmer Park, Detroit, Training Center. Another group of 42 State Police

recruits were tested while attending Trooper School, having completed six months probationary field work. The response of this group was used to help compile the State Police Scoring Scale and the State Police Profile.

Conclusions

The following were conclusions based upon the findings from this study:

1. The MAI is not an effective instrument for differentiating between successful and unsuccessful Michigan State Police recruits. This may be due to the effectiveness of prior selection criteria. The indications are that the factors other than personality characteristics, as measured by the MAI, are of greater importance in influencing the resignations of recruits.
2. Experienced Michigan State Police officers, who have been promoted, differ somewhat in attitudes and feelings from successful recruits and to a greater extent from unsuccessful recruits.
3. The Michigan State Police recruits appear to be drawn from a different population than the recruits from a large municipal police department.
4. The Michigan State Police recruits appear to be well-adjusted individuals with strong feelings for a well-ordered society.
5. The State Police Profile, the State Police Scoring Scale, and classification into behavioral categories could prove useful in the selection of police recruits.

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CHAPTER I

THE PROBLEM

Introduction

The traditional role of police in our society as protectors of life and property is undergoing change. The nature of the change is not yet clear. It is apparent, however, that the demands on the officers, resulting from civil unrest, increased traffic density, and accent on individual rights require greater finesse and a more thorough understanding of the problems. Television coverage of demonstrations and riots also bring the actions of officers directly to the public. The combination of changing roles and high visibility is causing many police departments to take a closer look at their recruit selection and training procedures.

It has been documented that more people terminate employment due to an inability to adjust to situations in which they find themselves than any other cause.¹ Police work involves a high degree of personal relationships in emotionally loaded situations. Thus, emotional stability and personality traits of each officer and his ability to interact positively with people becomes the prepotent skill needed. While no one has been able to define what is meant by an emotionally qualified officer, many departments are turning to personality tests to help select recruits.

¹Richard O. Hankey, "Personality Correlates in a Role of Authority: The Police." Unpublished doctoral dissertation, University of Southern California, 1968, pp. 14-15.

The major responsibility for controlling and reducing traffic accidents and violations has been delegated to state and local police. Traffic and safety educators, working in cooperation with police and other interested agencies, are attempting to carry out a coordinated attack to reduce accidents and violations. The close relationships between police and traffic and between police officers and traffic violators indicates that a study of police personalities and police selection might aid in the improvement of some of our traffic-public-police relationships. Additional interest is generated by the following:

1. The percentage of Michigan State Police recruits successfully completing recruit training has decreased over the past thirteen years.²
2. In most departments, approximately 50 per cent of police work is spent in traffic control.
3. The only contact many people have with police is in traffic violations.
4. The personal characteristics of police officers are believed to contribute to more effective traffic-public-police relationships.

The central purpose of this study is to determine the potential of the Mann Attitude Inventory (MAI) to aid in the selection of police recruits.

Statement of the Problem

The problem to be investigated in this study is to determine the feasibility of employing scales or inventories of certain

²Sgt. N. D. MacGregor, private interview held at State Police Headquarters, East Lansing, Michigan, May 1969.

personality traits or of emotional stability as an aid in the selection of Michigan State Police recruits. The traits will be measured by the responses to the individual items and the total and sub-scores on the MAI. The specific problems to be investigated are:

1. To determine the relationships between scores on the MAI and successful completion of Michigan State Police Recruit School.
2. To compare the responses of police recruits who completed recruit school with corporals and sergeants.
3. To compare the responses of police recruits who did not complete recruit school with corporals and sergeants.
4. To determine the relationships of MAI responses to reasons for resigning submitted by recruits who resigned or were asked to resign before completion of recruit school.

Four additional tasks will be performed.

1. Personality differences, as measured by the MAI, between Michigan State police recruits and Detroit Police recruits will be examined.
2. A special scoring scale for Michigan State Police and recruits taking the test will be developed.
3. A Michigan State Police profile will be derived from the MAI responses.
4. A series of behavioral categories established by Kenel³ for a high school population will be evaluated for consistency for a police group.

Hypotheses

The hypotheses to be tested in this study are:

- Ho₁: There is a significant relationship between the responses to the individual items of the MAI of recruits who complete recruit school and the responses of those who do not

³Francis C. Kenel, "Effectiveness of the Mann Inventory in Classifying Young Drivers into Behavioral Categories and its Relationship to Subsequent Driver Performances." Unpublished doctoral dissertation, Michigan State University, 1967.

complete the school to the same items.

- Ho₂: There are significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.
- Ho₃: There are significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.
- Ho₄: There is a significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

Basic Assumptions

The investigation of these problems was based on the following assumptions:

1. The MAI represented a valid instrument for testing police recruits.
2. Emotional and personality traits were among several valid reasons for resigning from police work.
3. The responses given by the recruits and officers were reliable responses.

Definitions

Recruit. An individual who has successfully passed background screening and testing and has enrolled in a school for training in police work.

Successful recruit. One who has been graduated from police recruit school.

Unsuccessful recruit. One who has resigned or been asked to resign after the first day and before graduation from the police recruit school.

Mann Attitude Inventory. A personal attitude survey consisting of sixty-three items that appear to reflect an individual's feelings toward himself, others, and established social customs.

Causes of Resignations. The statements submitted by recruits upon separation from police work.

Recruit School. Schools conducted by the Training Division of the Michigan State Police for the purpose of educating selected State Police recruits.

Trooper School. A refresher and review school conducted by the Training Division of the Michigan State Police at the end of a probationary field training and prior to acceptance to full Trooper status.

Leadership School. A school conducted by the Training Division of the Michigan State Police for troopers who have been selected for or promoted to leadership roles.

Limits of the Study

1. The findings reached in this study apply only to the selected population used.
2. The reasons given by recruits upon separation from recruit school may or may not be the actual reasons for resigning.

Organization of the Study

Chapter Two will include a review of the literature pertaining to the use of personality inventories in the selection of police recruits. Chapter Three will contain a description of the test instrument used, the population of the study, the methodology used for

collecting, organizing, and tabulating data and the statistical techniques applied in analyzing it. An account of the results of the analysis of the data is found in Chapter Four. Chapter Five will contain a discussion of the findings of the study in terms of the item analysis of the MAI. The chapter will include a comparison of Michigan State Police recruit responses and Detroit Police recruit responses to the MAI. It will also include the development of a State Police Scoring Scale for the MAI and a State Police Profile related to the items of the MAI. A comparison of the behavioral categories of the MAI, as established by Kenel, with the behavioral categories established for successful State Police officers and recruits will be made. In Chapter Six the study is summarized and conclusions are drawn. Areas for further research are identified.

CHAPTER II

REVIEW OF LITERATURE ON THE RELATIONSHIP OF PERSONALITY AND PERSONAL SOCIAL ADJUSTMENT TO POLICE SELECTION

A review of the literature revealed that few investigations have been made concerning the relationship of personality factors and the success of police recruits in basic training. Investigations have been made relating personality and social adjustment to the selection of police recruits. These will be reviewed.

Selective employment of personnel is used by many organizations. Hankey⁴, in a comprehensive review of the literature on the role of selection of police recruits, looked first at the selection process as used by business and industry. He concluded that psychological testing should be used only if the true nature of the organization is understood, and that this understanding is often missing.

He maintains that the conflicts that cause a lack of understanding of the true nature of business organizations also exist in police departments.⁵ The basic cause of the conflict in police departments is best stated by Skolnick.

The police in a democratic society are required to maintain order and to do so under the rule of law. As functionaries charged with maintaining order, they are part of the bureaucracy. The ideology of democratic bureaucracy emphasizes initiative rather than disciplined adherence to rules and regulations. By contrast, the rule of the law emphasizes the rights of individual citizens and

⁴Hankey, op. cit., pp. 14-15.

⁵Ibid., p. 20.

constraints upon the initiatives of legal officials. This tension between the operational consequences of ideas of order, efficiency, and initiative, on the one hand, and legality, on the other, constitutes the principal problem of police as a democratic legal organization.⁶

Hankey⁷ suggests other conflicts growing out of the inter-relationships of the different components of police authority, and further individual conflicts due to the nature of police work. He concludes that "The constructive resolution of the conflicts arising out of the police role requires that police agencies be staffed by persons who have special talents and personality characteristics."⁸

The determining and testing of these special talents and personality characteristics have been under the scrutiny of police administrators for many years. Again Hankey provides a comprehensive review.⁹ Considerable concern was shown as early as 1931. The problem was not closer to solution in 1967 as evidenced by the President's Commission on Law Enforcement and Administration of Justice in 1967 when they reported:

Thorough personal screening of police candidates is a clear necessity. The amount of thoroughness with which local departments screen candidates varies enormously. Some departments screen quite sketchily; others, including those in many biggest cities make in-depth background investigations, administer intelligence tests, and interview candidates exhaustively. However, it is fair

⁶Jerome H. Skolnick, "Justice Without Trial: Law Enforcement in a Democratic Society." New York: John Wiley & Sons, Inc., 1966, p. 6.

⁷Hankey, op. cit., p. 21.

⁸Ibid., p. 23.

⁹Ibid., Chapter II.

to say that even the most thorough departments do not evaluate reliably the personal traits and characteristics that contribute to good police work, not because they lack the desire to do so, but because a technique for doing so does not exist. Clearly this is a field in which intensive research is needed.¹⁰

Over a span of thirty-five years many attempts have been made to define the qualities and characteristics necessary for police work. Hankey concludes¹¹ that such generalities as "a well-adjusted personality" and "emotional stability" are most often given and that these items are difficult to measure objectively.

Personality testing is, by comparison, a newcomer to police selection. Hankey reports¹² surveys made in 1956 and 1961 to determine the extent of use of such tests. The 1956 survey showed only 3% of police departments reporting used personality testing on a regular basis. The number had risen to only 15% in the 1961 survey. A third survey in 1963 indicated 25% using personality evaluation regularly. Hankey found the testing often being used as a screening to eliminate the unfit rather than to predict success, and that little was being done to change the selection procedures currently being used.

In a section titled, "Findings from Personality Testing in Police

¹⁰President's Commission on Law Enforcement and Administration of Justice. The Challenge of Crime in a Free Society. Washington, D.C., Government Printing Office, 1967, p. 110.

¹¹Hankey, op. cit., p. 39.

¹²Ibid., pp. 48-50.

Organizations"¹³ Hankey reports on more than twenty-five papers, including a detailed analysis of a Los Angeles Police Department study. He found the Minnesota Multiphasic Personality Inventory (MMPI) the most often used test. He includes a chart showing a "police profile" developed from the MMPI but concludes that "the proper conclusion would be that, where police agencies have developed sophisticated selection techniques, the persons appointed to the force do not differ substantially from the normal population in terms of personality and temperment dispositions."¹⁴

Hankey summarizes his review as follows:

Personality evaluation techniques do have some value in screening out the obviously emotionally unfit candidate. However, the personality characteristics upon which the policeman's appointment was based have little, if any, value in predicting future performance. Tests of mental ability seem to fare better, but the results are not conclusive. A comprehensive background investigation is more productive of information for predicting performance than any other procedure reported in the literature.

Police officials have emphasized that the qualities needed for success in police work are above average mental ability, good health and physical condition, emotional stability and good mental health, skill in interpersonal relations, and skill in verbal facility. There is nothing particularly unique or exceptional about these since persons with such qualities have the potential to be successful in any vocation. It is contended that police work is a unique occupation and that unique qualities are needed for successful performance in addition to the platitudes of a good man.¹⁵

¹³Ibid., pp. 51-82.

¹⁴Ibid., p. 77.

¹⁵Ibid., 82-83.

His research is supportive of the conclusions reported above. He states that "No evidence was found to support the hypothesis that successful policemen have a different syndrome of personality traits and other variables as compared with non-successful policemen." He recommends that further research be done with persons who enter the law enforcement field, that such research might reveal facts which would aid selection and retention procedures.¹⁶ Finally, that "The time and effort expended on basic research would be much less than the losses now incurred from personnel failures due to inadequate knowledge concerning the variables which determine success or failure in police work."¹⁷

An entirely different approach to the selection of police recruits is reported by Barber.¹⁸ He suggests that the continuation of present background investigations only after polygraphic screening; that much time and money could be saved by doing the polygraphic screening first. He concludes by saying, "The author knows of no known psychological technique that has demonstrated the ability to gain the information necessary for proper applicant evaluation that polygraphic screening has demonstrated here and elsewhere."¹⁹

¹⁶Ibid., p. 230.

¹⁷Ibid., p. 231.

¹⁸William E. Barber, "Polygraphic Screening of Police Applicants." Unpublished material, IACP North Central Region Conference, June, 1967.

¹⁹Ibid., p. 13.

Bimstein²⁰ suggests that more written examinations in the form of objective tests be used in the selection of police recruits. He recommends using standardized general intelligence and mechanical aptitude tests now existing as a beginning. He mentions two tests, the McCann Associates test for police, and the TAV Selection System but questions their reliability and validity. He suggests that the police federations take on the task of test development. He concludes by stating that such a test is imperative to select the truly qualified superior officers.

An attempt to develop just such a test was made in a University of Chicago study of successful patrolmen. The study, a comprehensive one, had two primary goals:²¹

1. The development of effective procedures and the establishment of general standards for patrolmen selection.
2. The identification of distinctive "patrolmen types" as defined by field performance, which cannot be adequately defined by "average patrolman".

The researchers identified the essential attributes for successful police performance and suggested that specific tests could measure these attributes. Some of the attributes were:

1. Stable family relationship during childhood

²⁰Donald Bimstein, "Standardized Testing for Police Personnel,," The Police Chief. February, 1969, pp. 44-47.

²¹Melany E. Baehr, John E. Furcon, and Ernest C. Froemel, Psychological Assessment of Patrolman Qualifications in Relation to Field Performance. Chicago: Industrial Relation Center, University of Chicago, 1969.

2. Early assumption of family responsibility
3. Better than average health
4. Good mental functioning
5. Better than average perceptual abilities
6. Were cooperative in problem situations
7. Self confident
8. Good control of self
9. Realistic approach to life²²

While no test construction was attempted for this study, a battery of paper and pencil tests was used. Tests covered a wide span of human behavior and were classified as follows:

1. Motivational measures
 - Dimensions of objective background data
 - Dimensions of work interests indicating strength, flexibility, and vocational aspiration level of occupational interests.
2. Intellectual measures
 - Primary mental abilities in the areas of reasoning, language facility, and visual perception.
 - Special aptitudes, such as creative potential and insight in social situations.
3. Behavioral measures
 - Dimensions of the relative permanent temperment traits or characteristic modes of response of individuals in both normal and pressure situations
 - Dimensions of personality functioning as measured in tests purporting to represent various personality systems²³

²²Ibid., Chapter 1X - 1.

²³Ibid., p. 1V - 3a.

Seventeen tests were given in a period of four hours to the original groups selected for testing. The behavior tests are of particular interest to this research. They consisted of:

Temperment Comparator

measures the relatively permanent temperment traits of the individual

Edwards Personal Preference Schedule

a measure of the relative strength in the individual of 15 "needs" adapted from Murray's basic need system

Behavior Inventory

short form (30 True-False items) of the MMPI. Predictive of whether or not an individual will pass a personal background investigation

Hand Test

projective test measuring an individual's characteristic modes of behavioral response to all facets of his environment

The Maudsley Personality Inventory

measures extroversion-introversion and neuroticism-stability

Arrow-Dot Test

projective test, measures tendency to uncontrolled impulsive behavior; and is a measure of super-ego strength²⁴

The test results were compared with three major performance criteria: the department's performance criteria, paired comparison ratings, and tenure.

The research concludes that:

the ideal attributes for success are all related to stability - stability in parental and personal family situations, stability coming 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

²⁴Ibid., p. 1V-14 - 1V-23.

subjective orientation toward life.²⁵

A suggestion is made that these attributes might well be measured by a specialized single instrument. At the same time a warning is given that the complexity of police work causes sub-groups to be identified and a single test might not be possible.

An attempt to aid in the selection and training of police recruits is being made by the Department of Defense.²⁶ The program, called "Transition," is in operation at more than 250 military installations. "Emotional stability" is listed as a requirement in a summary of selection requirements. The screening interview includes questions on prejudices and racial understanding. Attempts are made to upset candidates by such statements as "come in nigger" and then ignoring the candidate. The program cooperates with at least five local colleges in conducting its classes.

The Portage, Michigan, Police Department is using a general IQ test and the Stanton Pre-Employment test in the selection of their recruits. Of special interest is that the tests, as well as a psychiatric interview and background screening, are all carried out by an outside agency.²⁷

²⁵Ibid., p. 1X-9.

²⁶Lee E. Lawder, "Army Veterans Join the War," Law and Order. Volume 18, Number 6, June, 1970, pp. 46-50.

²⁷Lt. Ronald McBride, private interview at the Portage, Michigan, Police Station, May 28, 1971.

The literature on personality tests presents a confusing picture. In an attempt to review the early history, one quickly finds that no comprehensive, authoritative history has even been written.²⁸ Backgrounds of individual tests are available, but 513 personality tests have been devised and reported on.²⁹ Of these, 379, or 75 percent, are still being sold. The area of personality testing has far outstripped others in the quantity of research, but, at the same time, has had the least generally accepted validity. In view of these conflicts and as representatives of the many personality inventories, a close look at two tests seems to be in order.

The Minnesota Multiphasic Personality Inventory (MMPI) was selected for a closer look for two reasons. First, the MMPI is currently being researched at the rate of 200 articles, books, and theses per year,³⁰ overwhelmingly the most looked at test. Second, the review of personality testing of police recruits indicates this is the most often used test.

The MMPI was first published in 1942.³¹ There are currently three forms on the market; individual, original group, and re-arranged group. The test consists of 566 items to be answered true or false

²⁸Robert L. Ebell, "Measurement in Education," Encyclopedia of Educational Research. Fourth Edition, The MacMillan Co., 1969, p. 778.

²⁹Oscar K. Buros, Ed., Personality Tests and Review, The Gryphon Press, Highland Park, New Jersey, 1970, p. XX.

³⁰Ibid., p. XXVI.

³¹Ibid., p. 166.

with respect to the self. A doubtful (?) category is also provided in some of the forms. The large number of items provide 14 scores as follows:³²

Hypochondrias	Hs
Depression	D
Hysteria	Hy
Psychopathic Deviate	Pd
Masculinity and Femininity	Mf
Paranoia	Pa
Psychosthenia	Pf
Schizophrenia	Sc
Hypomania	Ma
Social	Si
Question	?
Lie	L
Validity	F
Test Taking Attitude	K

The test scores are arranged in a "Personality Profile" which gives, in terms of the scores, an accurate measure of the various components of the personality. The MMPI is the most accepted of the personality tests as evidenced by the following statements:

"of its kind, this is probably the best inventory in existence"³³

³²Ibid., p. 166.

³³Ibid., p. 369.

"as a general screening test, it appears to be very valuable"³⁴

"The MMPI can differentiate quite well between those who do and those who do not have emotional and adjustment problems in a wide variety of settings."³⁵

The Guilford-Zimmerman Temperment Survey (GZTS) was the second personality test selected for a close scrutiny. This test was selected because it was the major instrument used by Richard O. Hankey in his study, "Personality Correlates in a Role of Authority: The Police," a study reviewed at some length earlier. It has also been used in many other research projects.

The GZTS attempts to provide scores for primary traits of personality.³⁶ The Survey consists of 300 items and measures 10 traits. The examinee responds by checking Yes, ?, or No. Profile charts are then provided for men and women.

The ten GZTS traits are as follows:

General Activity	G
Restraint	R
Ascendence	A
Sociability	S
Emotional Stability	E
Objectivity	O
Friendliness	F

³⁴Ibid., p. 371.

³⁵Ibid., p. 1121.

³⁶Hankey, op. cit., p. 103-105.

Thoughtfulness	T
Personal Relations	P
Masculinity	M

While the GZTS has not been as thoroughly researched or as much used as the MMPI, reviews are generally favorable. An example is:

"gives a favorable impression of a well-rounded, carefully worked-out method of evaluating an important portion of the total personality."³⁷

Summary

Considerable research has been done relating personality factors and social adjustment to the selection of police recruits. Few departments do any emotional screening, though there is a growing tendency to do so. The MMPI is the most often used personality test. The consensus of the literature is that the "normal, well-adjusted" person is the best candidate for police work. There is no agreement on how to find this candidate. The police professional journals (The Police Chief and Law and Order) contain many articles about the training of recruits but little about the selection of recruits and nothing about emotional screening.

³⁷Buros, op. cit., p. 510.

CHAPTER III

DESIGN AND METHODOLOGY

The Problem

Major responsibility for controlling and reducing traffic accidents and violations has been delegated to state and local police. The personal characteristics and emotional stability of police are believed to contribute to a more effective traffic-public-police relationship. The problem to be investigated is to determine the feasibility of employing scales or inventories to measure personality traits and emotional stability. The purpose of this study is to investigate the potential of the Mann Attitude Inventory (MAI) in the selection of police recruits. Responses to the individual items will be the primary measure studied. Total scores and subscores for over-controlled and undercontrolled measures will be used. The effectiveness of the MAI will be investigated by the following analyses:

1. To determine the relationship of responses to the individual items on the MAI and successful completion of Michigan State Police Recruit School.
2. To compare the responses on the individual items on the MAI of successful recruits with the responses of police who have been promoted.
3. To compare the responses on the individual items on the MAI of unsuccessful recruits with the responses of police who have been promoted.
4. To determine the relationship of the MAI responses on individual items to reasons given by recruits when resigning.

In each of the four analyses the significance level of the MAI as a total instrument will be determined.

Four additional tasks will be performed. First, a comparison of Michigan State Police recruit and Detroit Police recruit responses will be made. This task will determine if the MAI will show differences when recruiting procedures are known to be different. Second, a State Police Scoring Scale will be developed. A scoring scale, based on the responses of the various police groups, might be useful in the selection of police recruits. Third, a State Police profile will be developed to help describe the type of individual desirable for police work. Fourth, the consistency of Kenel's behavioral categories³⁸ will be investigated for a police population. The categories might be useful in the selection of recruits.

The Test Instrument

The Mann Attitude Inventory (MAI) is a 63-item personal attitude inventory that appears to reflect an individual's feeling toward himself, others, his home, his surroundings, and established social customs. Response to items in the MAI is by checking one of five possible choices: always, usually, sometimes, rarely, or never.

The MAI in its original form contained 100 items selected by Dr. William A. Mann of the Highway Traffic Safety Center at Michigan State University. The 100 items represented a compilation of the feelings expressed by 100 Michigan high school students towards the police, school, cars, family, peers, personal expectations, desires, and habits. These 100 students, identified by their driver education

³⁸Kenel, op. cit., pp. 29-30.

instructors as the worst drivers in their schools, were the subjects of intensive case studies, including personal interviews.

In order to select differentiating questions from the 100 items the assistance of 20 central Michigan driver education teachers was requested. The teachers were brought together and criteria were established to classify the students in three classes, the criteria were:

1. Very aggressive--Any student who displayed behavior that was exceedingly aggressive, a show-off, and extremely egotistical or tempermental.
2. Very reserved--Any student who displayed behavior that was exceedingly cautious and timid.
3. Average--The students who did not fall into either of the other two classifications.³⁹

The MAI was then administered to a sample population of 451 students. Their instructors had identified eighty students as very aggressive, eight-six as very reserved, and 285 as average. Thirty-seven items were given similar responses by almost all students and were deleted. The remaining sixty-three items were edited and now make up the MAI. An adjustment scale was developed by analyzing the responses of 85 percent of the average group to the remaining items. This revealed a deviation of 7 to 19 points.⁴⁰ The total score appears to be a measure of the emotional stability of individuals. The

³⁹Ibid., p. 30.

⁴⁰Ibid., p. 31.

analysis also disclosed that many items appeared to differentiate between the very aggressive, the very reserved, and the average. Other items were established as defensive measures to provide a check on the honesty of the responses. The scoring scales are shown in Appendix B.

The MAI was then administered to forty-two persons who had been referred to the Ingham County Driver Safety School, Lansing, Michigan. Using the three criteria, previously established, twenty-one persons were identified as being in the first category of "very aggressive", fifteen in the second category as "very reserved" and four in the third category as "average". The other two persons scored four and five of six defensive items incorrectly and their total scores indicated vacillation from "marked aggressive" to "very reserved".⁴¹

Kenel felt the MAI was helpful in identifying basic behavior patterns but he felt that more behavioral categories were needed than were used in the early efforts. As a result, six categories of observable behavior were established and used by Kenel in his study of a large number of high school driver education students. The six categories were as follows:

1. Behavior characterized by well-adjusted interaction with persons and consistent with the norms of the society in which the individual lives.
2. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic withdrawal from contact with people.
3. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic efforts toward assertive action.

⁴¹Ibid., p. 32.

4. Behavior characterized by forceful, outgoing action or vigorous efforts to assert oneself over others.
5. Behavior characterized by withdrawal from contact with other persons.
6. Behavior characterized by a pendulum effect, vacillating between extremes of aggression and withdrawal.⁴²

A total of 47 items was used to determine placement in the six behavioral categories. It is in this form that the MAI was employed in this study.

The MAI has been used by a number of investigators, generally in relation to driving behavior. Guyer investigated the relationship between behavioral characteristics as identified by the MAI and the driving records of a sample population of college students.⁴³ Significant differences were identified when collision and non-collision involvement were analyzed by behavioral categories. Rodolf⁴⁴ evolved a profile of individuals most likely to use seat belts. He administered the MAI to a group of male graduate students. Analysis revealed behavioral categories identified by the MAI showed substantial differences in frequency of restraining device use.

⁴²Ibid., p. 32-33.

⁴³R. M. Guyer, "Driver Propensities and Driving Records." Unpublished master's thesis, Illinois State University, 1970.

⁴⁴J. D. Rodolf, "Behavioral Characteristics Associated with Seat Belt Utilization." Unpublished master's thesis, Illinois State University, 1969.

Independent studies investigating the relationship between visual perception and behavior were done by Goby,⁴⁵ Lazarewicz,⁴⁶ and Quane.⁴⁷ Each employed the MAI and a "Perception of Traffic Hazards Test." The selected population varied. Analysis of data in these studies did not indicate significant differences in scores on the "Perception of Traffic Hazards Test," when compared to behavioral categories as determined by the MAI. Sinkoff⁴⁸ compared the personal adjustment of middle class white teenagers and inner-city black youth by means of the MAI. Analysis of the data indicated that there appear to be real differences between the personal adjustment of inner-city black and middle-class white high school students. Thompson⁴⁹ investigated the factors of emotional stability and personality traits as measured by the MAI and their relationship with past driving experiences. The population was 331 adults from the Lansing, Michigan area. No significant relationships between four accident-violation

⁴⁵D. W. Goby, "The Relationship Between Visual Perceptual Abilities and Behavioral Categories Among Beginning Motorists." Unpublished master's thesis, Illinois State University, 1970.

⁴⁶R. S. Lazarewicz, "The Relationship Between Behavioral Characteristics and Visual Perception." Unpublished master's thesis, Illinois State University, 1970.

⁴⁷William L. Quane, "The Relationship of Visual Perception Capabilities as Measured by the Perception of Traffic Hazards Test and Behavioral Categories as Measured by the Mann Inventory." Unpublished doctoral dissertation, Michigan State University, 1970.

⁴⁸Aaron Sinkoff, "A Comparison of Two Cultural Groups Through the Use of the Mann Inventory." Unpublished doctoral dissertation, Michigan State University, 1969.

⁴⁹Adelbert F. Thompson, "The Effectiveness of the Mann Inventory in Classifying Adult Drivers into Accident-Violation Experience Categories and its Relationship to Past Drive Performance. Unpublished doctoral dissertation, Michigan State University, 1970.

categories and six behavioral categories were found. O'Leary⁵⁰ followed up the male drivers used in Kenel's earlier study. He investigated their driving records for a period of seven years and compared the records with their MAI responses. Analysis of the data indicated significant correlations in violations and MAI ratings but not in accidents. Sain⁵¹ investigated five factors involved in high school Driver Education programs. He used the MAI to measure attitudes, one of five factors. Said found that 14 percent had failed to "develop proper attitudes." He recommended that "more stress be placed on group discussions and interaction for the development of better attitudes."

Implications for this Study

The MAI has been established by a number of investigators as a measure of various forms of behavioral traits. The problem to be studied is whether emotional and personality traits as measured by the MAI might be used for the selection of police recruits.

⁵⁰Phillip O'Leary, "An Assessment of the Effectiveness of the Mann Attitude Inventory as a Prediction of Future Driving Behavior." Unpublished doctoral dissertation, Michigan State University, 1971.

⁵¹Laurence W. Sain, "A Study of Selected Factors Associated with High School Driver Education Programs in the Upper Peninsula of Michigan." Unpublished doctoral dissertation, Michigan State University, 1970.

Null Hypotheses

The following are restatements of the hypotheses in null form that were tested in this study.

- Ho₁: There is no significant relationship between the responses to the individual items of the MAI of recruits who complete recruit school and the responses of those who do not complete the school to the same items.
- Ho₂: There are no significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.
- Ho₃: There are no significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.
- Ho₄: There is no significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

The significant level of the MAI will be determined for each hypothesis.

Four problems were considered.

1. Differences in the responses on the MAI of Michigan State Police recruits and Detroit Police recruits will be examined.
2. A State Police Scoring Scale will be established.
3. A State Police Profile will be established.
4. To determine if the behavioral categories established by Kenel are consistent in a selected police population.

The Sample

The sample population of this study consisted of 196 police officers and recruits. The first group consisted of 171 recruits attending State Police Recruit School in three classes during the

first or second day of recruit school. This is the basic group whose responses will be tested and studied.

The second group consisted of twenty-five corporals and sergeants who had returned to the East Lansing, Michigan State Police Headquarters for Leadership Training School during the fall of 1968. The group was selected to serve as a comparison with police recruit groups. The MAI was administered during the first day of the leadership school.

Two other groups were used in the four tasks performed. One group consisted of seventy-two Detroit Police recruits. The recruits were given the MAI during their third week of training at the Palmer Park Training Center, Detroit, Michigan in January, 1969. The final group, forty-two State Police recruits, were tested while attending Trooper School, having completed six months of probationary field work.

Procedure of Analysis

H_{01} :

The 171 State Police recruits tested first were divided into two groups; 85 who completed recruit training and 86 who did not complete training. Their responses were hand scored using the original scoring scale developed by Mann and described earlier. Total scores, sub-scores, mean and range were derived. The responses of the recruits to each item were then placed on computer cards. The chi square test of significance⁵² was then computed for each item by

⁵²N. M. Downie and R. W. Heath, Basic Statistical Methods. Harper and Row, New York, 1970, pp. 196-212.

complete--did not complete groupings to determine if significant differences exist between the groups. The .10 level was used as the significant level.

The significant level of the MAI as a predictive instrument was established by using a method devised by Sakoda and others.⁵³ The number of significant items established by testing each item (n) and the total number of items tested (N) was applied to a graph shown in Figure 1. The significance level was then read from the graph. The significance level used for the MAI was .05.

Ho₂:

The responses to the individual items of the recruits completing recruit school were compared with the responses of Michigan State Police officers who had been promoted. The chi square test of significance was computed for each item and the .10 level was used to determine the number of significant items. The the Sakoda test, described above, was used to determine the significance level of the MAI.

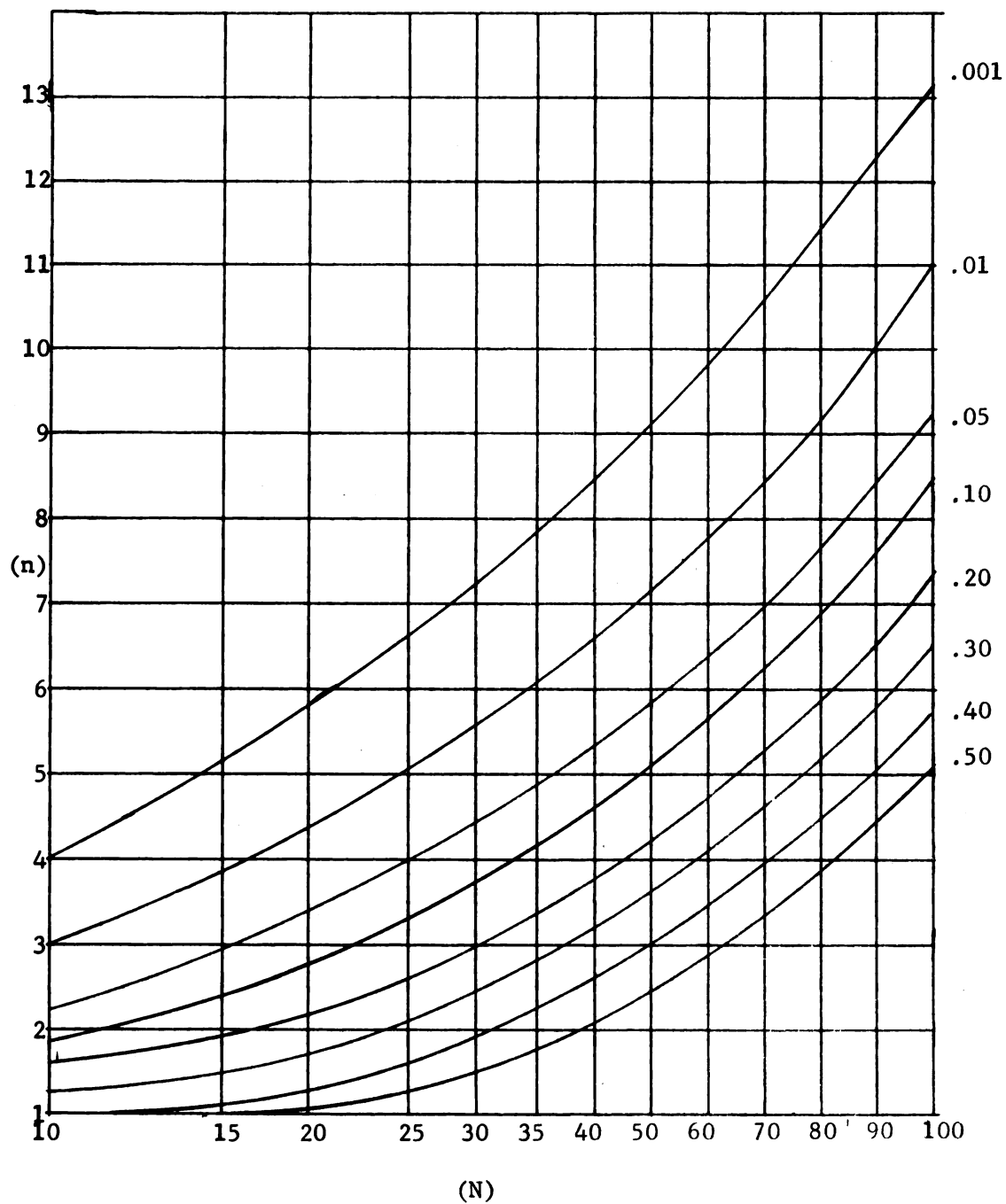
Ho₃:

The identical process was followed a second time, comparing item responses of the unsuccessful recruits and the promoted State Police officers. The chi square test was used to determine the number of significant items at the .10 level. The Sakoda graph (Figure 1) was used to determine the predictive ability of the MAI.

⁵³J. M. Sakoda, B. H. Cohen, and G. Beal, "Test of Significance for a Series of Statistical Tests." Psychological Bulletin, Volume 51, Number 2, 1954, pp. 172-175.

FIGURE 1

Chance probability of obtaining at least n statistics significant at the .05 level from N calculated statistics



Ho₄:

Seventy-nine recruits resigned before completion of recruit training and 7 were asked to leave. The Michigan State Police Personnel Office provided the reason for separation given by those recruits failing to complete training. The reasons given by the recruits when resigning were placed in 6 categories.

1. Dismissed
2. Other police work
3. Other work
4. Education
5. Health
6. Family problems⁵⁴

To determine if there are differences between the responses on each of the 63 items of the MAI and the reasons given by the recruits when resigning the chi square test was administered. The number of significant items at the .10 level was determined. Then the Sakoda graph (Figure 1) was used to determine the significance level of the MAI.

Procedures for Tasks

The purpose of the first task was to determine if the MAI would show differences when the groups were known to have been selected by

⁵⁴James E. Carnahan, "Formulative Study into the Nature and Scope of Police Systems in Arizona in Order to Identify Educational and Research Needs." Unpublished report, University of Arizona, 1967.

different procedures. The responses to the individual items of the MAI by the 171 Michigan State Police recruits were compared with the responses of the seventy-two Detroit Police recruits. The chi square test was computed for each item and the number of significant items was determined. The significance level of the MAI was found using the Sakoda test.

An analysis of the sixty-three items making up the MAI was made. A State Police Scoring Scale and a State Police Profile were developed using the hand scored total and sub-total responses of the 171 recruits, the forty-two officers attending Trooper School, and the twenty-five officers attending the Leadership School.

The State Police recruits and officers were placed in six behavioral categories by scoring the item responses using Kenel's⁵⁵ scoring scale. This was done to test the consistency of the categories on a selected police population.

Summary

The development and prior use of the MAI was reviewed.

The sample population used in this study was 196 Michigan State Police officers and recruits.

In addition, the responses of forty-two State Police recruits and seventy-two Detroit Police recruits were used in the tasks performed.

The MAI was given to all of the groups. The State Police recruits were divided into two groups: those who completed recruit school and

⁵⁵Kenel, op. cit., p. 31.

those who did not complete. Reasons for resigning were obtained from the Michigan State Police Personnel Office for eighty-six recruits. The chi square test of significance was employed to determine differences between:

1. Those who completed recruit training and those who did not.
2. Successful recruits and promoted officers.
3. Unsuccessful recruits and promoted officers.
4. The relationship of responses to reasons for resigning.

The significance level of the MAI was determined in each hypothesis using a technique developed by Sakoda.

The tasks of comparing responses of Michigan State Police recruits and Detroit Police recruits, the establishment of a State Police Scoring Scale, the development of a State Police Profile, and the consistency of Kenel's behavioral categories were explained.

CHAPTER IV

STATISTICAL ANALYSIS

An analysis of the hypotheses is presented in this chapter. Also, the mean and standard deviation of the total scores and subscores will be presented.

The hypotheses were:

- Ho₁: There is a significant relationship between the responses to the individual items of the Mann Attitude Inventory (MAI) of recruits who complete recruit school and the responses of those who did not complete the school to the same items.
- Ho₂: There are significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.
- Ho₃: There are significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.
- Ho₄: There is a significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

In each hypothesis the significance level of the MAI will be determined. The sixty-three items making up the MAI are shown in

Appendix A.

Mean and Standard Deviation

Arithmetical means were computed from the scores obtained using the original scoring scale shown in Appendix B. This was done to evaluate the State Police recruits using the three categories (over controlled, under controlled, average) established by Mann and

Kenel.⁵⁶ The mean for total scores was 13.25 with a standard deviation of 3.7. The mean obtained for the over controlled items was 6.088. The mean for the under controlled items was 6.02. These scores indicate the State Police recruits are in the "average" group. The procedures used to select recruits seem to eliminate the deviancies present in the normal population.

Differences by Complete--Did Not Complete Categories

The null hypothesis tested for each item in the MAI was:

H₀₁: There is no significant relationship between the responses to the individual items of the MAI of recruits who complete recruit school and the responses of those who do not complete the school to the same items.

When the responses of this study were analyzed, the chi square values of four of the sixty-three items were found to be significant at the .10 level. The remaining items were not significantly different.

Table 1 shows the chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for each of the items in the MAI for this hypothesis.

The MAI was tested by using Figure 1 and the method suggested by Sakoda and others.⁵⁷ With four items of sixty-three at a significant level, the MAI must be regarded as having no value for this hypothesis. The null hypothesis must be accepted.

⁵⁶Kenel, op. cit., p. 30.

⁵⁷Sakoda, op. cit., pp. 172-175.

TABLE 1

Chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for Ho₁

Item	Chi square	DF	C	P	Item	Chi square	DF	C	P
1	3.227	4	.136	.1	33	3.361	4	.139	.1
2	5.391	4	.175		34	0.093	4	.023	
3	2.309	4	.115		35	3.701	4	.146	
4	8.360	4	.216		36	4.453	4	.159	
5	3.168	4	.135		37	5.288	4	.173	
6	2.382	4	.117		38	5.268	4	.173	
7	3.546	4	.143		39	1.409	4	.090	
8	4.971	4	.168		40	2.407	4	.118	
9	1.279	4	.086		41	2.339	4	.118	
10	1.803	4	.102		42	3.997	4	.151	
11	7.024	4	.199	.1	43	3.303	4	.138	.1
12	0.648	4	.061		44	2.189	4	.112	
13	1.792	4	.102		45	0.499	4	.054	
14	0.566	4	.057		46	5.675	4	.179	
15	0.402	4	.048		47	7.367	4	.203	
16	3.958	4	.150		48	2.537	4	.121	
17	1.143	4	.081		49	1.234	4	.085	
18	4.928	4	.167		50	0.337	4	.044	
19	0.996	4	.076		51	2.991	4	.131	
20	4.662	4	.163		52	1.271	4	.086	
21	6.444	4	.191	.1	53	4.931	4	.167	.1
22	3.143	4	.134		54	3.002	4	.131	
23	8.135	4	.213		55	7.056	4	.199	
24	2.138	4	.111		56	2.985	4	.131	
25	5.702	4	.180		57	9.108	4	.225	
26	3.327	4	.138		58	5.760	4	.181	
27	4.221	4	.155		59	6.893	4	.197	
28	3.247	4	.137		60	3.138	4	.134	
29	3.528	4	.142		61	1.502	4	.093	
30	9.349	4	.228		62	2.461	4	.119	
31	2.328	4	.116	.1	63	6.335	4	.189	
32	5.433	4	.175						

Key: DF = Degrees of freedom
 C = Correlation coefficient
 P = Level of significance

Relationship of Successful Recruit Responses
and Promoted State Police Responses

The null hypothesis tested for each item in the MAI was:

Ho₂: There are no significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.

The responses of the successful recruits to the individual items were compared with the responses of a group of corporals and sergeants by using the chi square test of significance. Seven items were found to be significant at the .10 level.

The chi square values, the degrees of freedom, the correlation coefficient, and the probabilities for each of the items are shown in Table 2.

The significance level of the MAI was determined for this hypothesis by using Figure 1 and the method described earlier. With seven items of sixty-three significant, the MAI is significant between the .05 and .01 level. Therefore, the null hypothesis must be rejected.

Relationship of Unsuccessful Recruit Responses
and Promoted State Police Responses

The null hypothesis tested for each item in the MAI was:

Ho₃: There are no significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.

An examination of the responses of the unsuccessful recruits and the group of corporals and sergeants showed that eleven items were significant at the .10 level. The chi square values, the degrees

TABLE 2

Chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for H_0

Item	Chi square	DF	C	P	Item	Chi square	DF	C	P
1	5.207	4	.213		33	0.379	4	.059	
2	0.067	4	.025		34	7.182	4	.248	
3	2.023	4	.134		35	0.521	4	.069	
4	0.525	4	.069		36	0.373	4	.058	
5	5.238	4	.213		37	3.387	4	.173	
6	1.648	4	.123		38	6.363	4	.234	
7	4.856	4	.206		39	3.383	4	.173	
8	1.259	4	.106		40	13.167	4	.327	.05
9	2.444	4	.147		41	4.825	4	.205	
10	2.234	4	.141		42	3.735	4	.181	
11	1.119	4	.100		43	1.222	4	.105	
12	0.937	4	.092		44	2.231	4	.141	
13	4.407	4	.196		45	3.021	4	.164	
14	8.665	4	.270	.1	46	14.873	4	.345	.05
15	2.080	4	.136		47	10.891	4	.300	.05
16	5.018	4	.209		48	1.596	4	.120	
17	3.452	4	.174		49	7.452	4	.252	
18	2.243	4	.141		50	2.537	4	.150	
19	3.968	4	.187		51	2.318	4	.144	
20	5.865	4	.225		52	5.714	4	.223	
21	9.114	4	.277	.1	53	4.859	4	.206	
22	1.977	4	.133		54	2.378	4	.145	
23	7.773	4	.257		55	4.758	4	.204	
24	3.927	4	.186		56	8.642	4	.270	.1
25	11.661	4	.310		57	2.014	4	.134	
26	4.818	4	.205		58	3.082	4	.165	
27	6.656	4	.239		59	7.393	4	.251	
28	1.730	4	.124		60	7.430	4	.252	
29	7.661	4	.255		61	0.555	4	.071	
30	2.646	4	.153		62	0.649	4	.079	
31	2.945	4	.161		63	5.924	4	.226	
32	3.759	4	.182						

Key: DF = Degrees of freedom
 C = Correlation coefficient
 P = Level of significance

of freedom, the correlation coefficients, and the probabilities for each of the items are shown in Table 3.

Figure 1 was used to determine the significance level of the MAI. With eleven items at the .10 level, the significance level of the MAI was .001. The null hypothesis must be rejected.

The difference between the unsuccessful recruits and the successful police were slightly greater than the differences between the successful recruits and the successful police. The potential of the MAI is probably strengthened by this finding.

Relationship Between Responses and Reasons for Resigning

A restatement of the null hypothesis for this study is:

Ho4: There is no significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

The reasons given by recruits when resigning were used to place the recruits in six categories. The chi square test of significance was administered to determine the relationship between the categories and the recruit responses to individual items on the MAI. Eleven items were found to be significant at the .10 level.

Chi square values, degrees of freedom, correlation coefficients, and probabilities for this study are shown in Table 4.

The significance level of the MAI for this study was determined by using Figure 1. Since eleven of the sixty-three items were found to be significant, the MAI was found to be significant at the .001 level. The null hypothesis must be rejected.

TABLE 3

Chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for H_0

Item	Chi square	DF	C	P	Item	Chi square	DF	C	P
1	10.872	4	.299	.05	33	4.280	4	.193	
2	1.704	4	.123		34	6.096	4	.228	
3	1.831	4	.127		35	1.965	4	.132	
4	4.713	4	.202		36	2.271	4	.142	
5	5.177	4	.211		37	5.199	4	.212	
6	2.212	4	.140		38	4.972	4	.207	
7	9.762	4	.284	.05	39	2.069	4	.135	
8	3.137	4	.166		40	8.425	4	.266	.1
9	1.558	4	.118		41	2.022	4	.134	
10	2.192	4	.139		42	1.757	4	.125	
11	1.242	4	.103		43	3.072	4	.164	
12	1.495	4	.115		44	3.829	4	.183	
13	4.500	4	.197		45	5.217	4	.212	
14	9.435	4	.280	.1	46	22.236	4	.409	.05
15	1.076	4	.098		47	5.781	4	.222	
16	3.715	4	.180		48	0.619	4	.074	
17	0.893	4	.089		49	7.934	4	.258	.1
18	0.998	4	.094		50	1.844	4	.128	
19	6.265	4	.231		51	1.150	4	.101	
20	6.585	4	.237		52	7.218	4	.247	
21	2.487	4	.148		53	8.577	4	.268	.1
22	3.923	4	.185		54	1.162	4	.102	
23	12.787	4	.321	.05	55	8.679	4	.269	.1
24	5.606	4	.219		56	11.587	4	.307	.05
25	6.170	4	.229		57	0.692	4	.079	
26	4.371	4	.195		58	7.317	4	.249	
27	7.224	4	.247		59	13.261	4	.327	.05
28	1.288	4	.107		60	5.658	4	.220	
29	6.337	4	.232		61	0.951	4	.092	
30	0.783	4	.084		62	0.437	4	.063	
31	2.302	4	.143		63	4.638	4	.200	
32	5.410	4	.216						

Key: DF = Degrees of freedom
 C = Correlation coefficient
 P = Level of significance

TABLE 4

Chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for H_{04}

Item	Chi square	DF	C	P	Item	Chi square	DF	C	P
1	15.727	20	.393		33	25.445	20	.478	
2	37.261	20	.550	.05	34	7.318	20	.280	
3	8.423	20	.299		35	16.104	20	.397	
4	4.249	20	.219		36	20.294	20	.437	
5	27.047	20	.489		37	95.864	20	.726	.001
6	12.095	20	.351		38	54.499	20	.639	.001
7	21.616	20	.448		39	36.603	20	.546	.05
8	27.842	20	.495		40	26.560	20	.486	
9	19.142	20	.427		41	17.104	20	.413	
10	29.578	20	.506	.10	42	24.700	20	.472	
11	20.950	20	.443		43	5.510	20	.245	
12	41.403	20	.570	.01	44	10.576	20	.331	
13	16.932	20	.406		45	4.639	20	.226	
14	7.356	20	.281		46	36.307	20	.545	.05
15	7.134	20	.277		47	15.304	20	.389	
16	22.514	20	.455		48	16.528	20	.401	
17	22.258	20	.453		49	13.294	20	.366	
18	32.698	20	.523		50	1.114	20	.113	
19	3.378	20	.194		51	11.795	20	.347	
20	14.913	20	.384		52	14.102	20	.375	
21	38.926	20	.558	.01	53	30.045	20	.509	.1
22	15.593	20	.392		54	15.382	20	.449	
23	19.280	20	.428		55	21.710	20	.449	
24	10.762	20	.333		56	18.044	20	.416	
25	20.379	20	.438		57	18.510	20	.421	
26	25.915	20	.481		58	21.500	20	.447	
27	8.726	20	.304		59	89.597	20	.714	.001
28	20.050	20	.435		60	18.117	20	.417	
29	11.189	20	.339		61	11.095	20	.338	
30	3.791	20	.205		62	11.023	20	.386	
31	24.050	20	.467		63	8.436	20	.299	
32	21.223	20	.445						

Key: DF = Degrees of freedom
 C = Correlation coefficient
 P = Level of significance

Since the MAI is a measure of emotional and personality factors, these can be considered as some of the several reasons for recruit resignations.

Summary

Statistical analysis of the data revealed:

1. When the responses to the individual items on the MAI of the successful and unsuccessful recruits were compared and analyzed four of sixty-three items were significant at the .10 level. The MAI did not reach a significant level. The null hypothesis was accepted.

2. The individual items responses of successful recruits were compared with responses of corporals and sergeants. Seven of the sixty-three items were found to be significant at the .10 level. The MAI was significant at the .05 level. The null hypothesis was rejected.

3. The responses to individual items of unsuccessful recruits were compared with the responses of corporals and sergeants. Eleven of sixty-three items were found to be significant at the .10 level. The MAI was significant at the .001 level. The null hypothesis was rejected.

4. Unsuccessful recruits were placed into six categories by reasons for resigning. Responses to the individual items by categories were analyzed using the chi square test of significance. Seven items were found to be significant. The MAI was found to be significant at the .05 level. The null hypothesis was rejected.

CHAPTER V

DISCUSSION AND ITEM ANALYSIS

Discussion

For ease of understanding, each hypothesis will be considered separately in the discussion.

Null Hypothesis No. 1 is:

There is no significant relationship between the responses of recruits who complete recruit school to the individual items of the MAI and the responses of those who do not complete the school to the same items.

While a pilot study had indicated a possibility of measurable differences on MAI responses by successful and unsuccessful recruits undergoing training, the conclusion of "no significant differences" was not entirely unexpected. The recruit population is a carefully tested and selected one. Most of the deviancies present in a normal population have been screened out.

The four significant items were:

4, 23, 30, and 57

Items 4, 23, and 57 indicate a strong, stable home and community base. Item 30 refers to passing on hills and curves, and other items on the MAI, not showing as significant, could better have established a pattern. The items were certainly too few to show any pattern. This could indicate that those who drop have some reason other than personal adequacy for leaving the program.

Null Hypothesis No. 2 is:

There are no significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.

Comparison of the responses of successful recruits and promoted police showed seven items significant at the .10 level. They were:

14, 21, 25, 40, 46, 47, and 56

The items show no pattern and are too few to analyze. While the null hypothesis was rejected, the few differences seem to re-enforce the conclusions of the first hypothesis.

Null Hypothesis No. 3 is:

There are no significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.

A comparison of the unsuccessful recruits and promoted State Police showed eleven significant items at the .10 level. The items were:

1, 7, 14, 23, 40, 46, 49, 53, 55, 56, and 59

Four more responses were significant than those of successful recruits. The responses were scattered and show no patterns. There are, however, definite differences between unsuccessful recruits and those among the successful recruits outstanding enough to be promoted. A stronger self image and a greater social awareness are among the differences indicated by MAI responses.

Null Hypothesis No. 4 is:

There is no significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

Eleven items were found to be significant at the .10 level. The items were:

2, 10, 12, 18, 21, 37, 38, 39, 46, 53, and 59

The MAI was significant at the .001 level. There are probably several legitimate reasons for resigning; attitudes appear to be an important one.

The stated reasons for resigning, the number and per cent of recruits using them are:

Dismissed	7	8%
Other police work	4	5%
Other work	35	41%
Continue education	1	1%
Health	28	32%
Family problems	11	13%

The recruits depended heavily on "other work" and "health" as reasons for resigning 72.3 percent. The suspicion exists that these were known to be "acceptable" and were used to cover other, perhaps more real, reasons for resigning.

Private conversations with the training staff indicate that the resignations cluster about the training sessions in boxing and swimming. While only five recruits stated "unable to cope with boxing or swimming" the possibility exists that the strenuous physical nature and inability to compete successfully in these activities might have brought about the dislike for police work indicated by some recruits.

The "health" group gave primarily physical reasons. Only one recruit listed "nerves and tension", one gave "fear of public speaking" and three gave "mental strain" as reasons for resignation. This could be considered as further indication that the strenuous nature of some of the activities add to the resignations.

Task Number 1

The first additional task was to compare the responses of the Michigan State Police recruits and the Detroit Police recruits to the MAI. This task was performed to determine if the MAI was capable of showing differences when differences were known to exist. The known difference is that the Michigan State Police and the Detroit Police use different standards for the selection of recruits.

Each item of the MAI was tested using the chi square test of significance. The analysis of the items showed the chi square values of twenty of the sixty-three items were significant at the .10 level.

The chi square values, the degrees of freedom, the correlation coefficients, and the probabilities are shown in Table 5.

When Figure 1 was used to determine the significance level of the MAI, a level of .001 was indicated.

There appear to be many emotional and personality trait differences between the State Police recruits and the Detroit Police recruits. The significance level of the MAI (.001) indicates the inventory is capable of measuring differences of attitudes and feelings in different population groups.

Item Analysis

The MAI is a sixty-three item personal attitude inventory that appears to reflect an individual's feelings toward himself, others, his home, his surroundings, and established social custom. The individual being tested has a choice of five responses; (A) always, (B) usually, (C) sometimes, (D) rarely, and (E) never. The

TABLE 5

Chi square values obtained, degrees of freedom, correlation coefficients, and probabilities for Task Number 1

Item	Chi square	DF	C	P	Item	Chi square	DF	C	P
1	11.402	4	.303	.05	33	47.615	4	.544	.01
2	1.695	4	.122		34	5.279	4	.211	
3	1.285	4	.106		35	7.252	4	.246	
4	2.205	4	.138		36	1.345	4	.143	
5	3.646	4	.177		37	4.891	4	.204	
6	11.141	4	.300		38	8.342	4	.262	.1
7	48.302	4	.547	.01	39	20.571	4	.392	.01
8	2.062	4	.134		40	4.198	4	.189	
9	2.327	4	.142		41	14.637	4	.339	.01
10	4.455	4	.195		42	10.997	4	.298	.05
11	0.697	4	.078		43	3.118	4	.164	
12	4.080	4	.187		44	15.234	4	.345	.01
13	7.688	4	.252		45	17.778	4	.369	.01
14	1.587	4	.118		46	3.245	4	.167	
15	3.966	4	.184		47	5.720	4	.219	
16	10.391	4	.290	.05	48	5.711	4	.219	
17	0.143	4	.036		49	6.561	4	.234	
18	4.469	4	.195		50	1.695	4	.122	
19	.188	4	.041		51	0.996	4	.093	
20	12.725	4	.318	.05	52	4.602	4	.198	
21	16.897	4	.361	.01	53	4.348	4	.192	
22	12.419	4	.315	.05	54	15.806	4	.350	.01
23	30.503	4	.461	.01	55	3.640	4	.177	
24	1.331	4	.108		56	19.649	4	.385	.01
25	6.313	4	.230		57	8.235	4	.261	.1
26	10.459	4	.291		58	2.836	4	.156	
27	3.993	4	.185		59	1.253	4	.105	
28	7.548	4	.250		60	14.211	4	.334	.01
29	5.083	4	.207		61	6.760	4	.238	
30	1.786	4	.125		62	0.911	4	.089	
31	0.876	4	.088		63	5.114	4	.208	
32	3.405	4	.171						

Key: DF = Degrees of freedom
C = Correlation coefficient
P = Level of significance

sixty-three items seem to group themselves into seven areas:

1. Personal
2. Driving
3. Traffic
4. Home
5. School
6. Police
7. Community

An item analysis of the sixty-three items was done to establish a State Police Profile and to assist in the development of a State Police Scoring Scale. The groupings listed above were used.

Personal

In the first group are items about an individual's feelings about himself. Sixteen items compose this group and will be discussed first.

(6) I put off until tomorrow things I should do today. Since most people procrastinate occasionally, the "sometimes" or "rarely" answer of police recruits shows them to fall in the normal range. Item 6 is the first of seven defensive measure items. A response of "never" might indicate an attempt to please the testing agency instead of an honest answer.

(12) I enjoy being out late at night and sleeping mornings. The mid-range of responses are given and indicate a behavior generally accepted for young people in our society.

(15) I am concerned about the way my clothes look. The desire to look neat and clean in the eyes of others is an indication of feelings of personal worth. Responses were "always" and "usually."

(26) There are times when it seems everyone is against me.
By responding "sometimes," "rarely," or "never" the police recruits project a strong, positive self image.

(32) I like to put extras on my car to attract attention.
No felt need to call undue attention to themselves is indicated by "rarely" or "never" responses. The feel of a positive self image is re-enforced.

(34) Strong discipline in practice makes a better team.
The recruits seem willing to accept the discipline required of a State Trooper. A considerable amount of self discipline is shown by their responses of "always" and "usually."

(40) I have been wrong in an argument but wouldn't admit it to my opponent.
The mid-range responses would seem to indicate a willingness to learn from others. Item 40 is a second defensive measure item.

(42) I like to razz the team when it is losing.
Empathy for others, particularly the underdog, seems indicated by answers of "rarely" or "never."

(44) I am considered a friendly person.
The police and recruit response of "always" or "usually" again re-enforces the strong positive self image as opposed to the hostile, authoritarian type of individual.

(51) I like a great deal of freedom.
The responses of "usually" and "sometimes" shows a desire for personal freedom but, at the same time, an understanding of the need for rules and regulations for the common good.

(52) I don't mind being told what to do.

The responses of "usually" and "sometimes" again shows a desire for freedom but, also, the need for controls for the common good.

(54) I sometimes become concerned about what other people think of me.

The responses group around "usually" and possibly indicates a desire to please and be of service to others. Item 54 is the third defensive measure item.

(55) I find older people to be bossy.

The ability to get along well with others seems to be brought out by responses of "sometimes" or "rarely."

(57) I think courtesy towards others is a good reflection of a person's character.

Not only do the recruits show a strong self image, but also considerable concern for others. Their responses are "always" and "usually."

(61) I am considered a reliable person.

Responses of "always" and "usually" again re-enforce the strong positive self image.

(62) I like to help a person who is in trouble.

A concern for others is strongly indicated by responses of "always" and "usually." This would seem to be an important quality for police to have.

Driving

The second group, of fifteen items, center around the driving experience. Questions are asked about how one feels and thinks about driving a car.

(2) Young people are much better drivers than middle-aged people.

Since the police recruits are young people, the responses of "usually" and "sometimes" are not unexpected. A strong self image is again projected.

(7) I like to daydream while I am driving.

An awareness of the responsibilities of the driving task seems to show in responses of "sometimes" and "rarely."

(8) I feel full of pep when I get behind the wheel.

The wide range of acceptable responses, "usually," "sometimes," and "rarely" make it difficult to assign any meaning to this item.

(13) I get a feeling of real power when driving a car.

Responses of "rarely" and "never" again indicate an awareness of the responsibilities involved in driving.

(18) Unsafe drivers should be deprived of the right to drive.

Further verification of the knowledge of the rights and responsibilities of driving. The accepted responses are "always" and "usually."

(20) I like to get everything out of a car that it has in it.

The edging of the responses to the "never" side of the scale seem to indicate a growing maturity.

(29) People should drive when they are angry.

An understanding of how emotions can affect driving seem to be indicated by responses of "rarely" or "never."

(31) It is necessary to stop at "stop" signs if no other cars are in sight.

The strong concern for safe driving practices is re-enforced by the 91 per cent response of "always" to this item.

(47) Attitudes toward driving are more important than ability to handle the car.

The responses of "usually" and "sometimes" should be viewed in relation to the total pattern of police recruit responses. Other items indicate that the recruits do, in fact, feel that attitudes are extremely important.

(48) I like to take chances when I'm driving.

An awareness of the rights and responsibilities of driving are again pointed out by responses of "rarely" and "never."

(5) Courtesy toward other drivers is important.

The single response of "always" shows the importance that police recruits place in the proper attitude for the driving task.

(56) I feel somewhat nervous when I drive a car.

A great deal of self confidence and/or experience is shown by the responses of "rarely" or "never."

(58) I get more fun out of driving a car than in any other activity.

The "sometimes" response is typical of young people. The movement to "rarely" and "never" might indicate a growing maturity.

(63) I am more courteous than the average driver.

Police recruits see themselves as generally average drivers. This should help them in their future role of dealing with traffic violators. Responses were "sometimes" and "rarely."

Traffic

The third group of items are seven that tend to look at the overall traffic pattern instead of the individual's thoughts and feelings.

(11) Overcareful drivers cause more accidents than the so-called reckless ones.

The responses of "always" and "usually" indicate an interest and concern in all causes of accidents. This approach should be helpful to police recruits.

(16) Slow drivers should be kept off the highways.

The wide range of acceptable responses make the item difficult to interpret. The "sometimes" response might mean that the police recruits think each situation should be evaluated on its own merits.

(19) Accidents don't just happen; they are caused.

The police recruits seem to say by their responses of "usually" and "always" that traffic accidents are for the most part avoidable. This is certainly a commendable approach to bring to the traffic problem.

(25) I get impatient when driving in heavy traffic.

The middle responses indicate that this is a highly individual matter. A slight edging in the "rarely" direction shows.

(27) Old, defective cars should be kept off the road.

There is strong agreement that the cars described should be off the roads. Perhaps this is seen as a part of the solution to the traffic problem. Responses were "always" and "usually."

(28) Drivers should be given more freedom in obeying traffic signs.

The "rarely" and "never" responses show a desire for traffic laws to be enforced as written.

(49) Traffic laws are set up to promote safety.

A great deal of confidence is shown in our current traffic laws and regulations by response of "always" and "usually."

Home

A group of seven items concern the home environment. The items concern family relationships and whether the home is happy.

(4) My parents are reasonable in their relations with me.
The responses of "always" and "usually" indicate a good, working relationship in the home.

(9) I live in a home that is happy.
A further re-enforcement of the good, working family relationship is shown by the positive responses of "always" and "usually."

(22) My parents exert too much control over me.
The responses of "sometimes" or "rarely" indicate that over control and/or under control was seldom a problem.

(38) My father gets traffic tickets for moving violations.
The example of the father in "rarely" or "never" receiving moving violations has to strengthen the respect for law and order. A strong, stable father image is provided.

(39) I have as good table manners at home as when I eat out.
A well disciplined home and family life seems indicated by responses of "always," "usually," or "sometimes." Item 39 is one of the 7 defensive measure items.

(46) Our family spends a great deal of time together.
A strong, stable home is indicated by responses of "always," "usually," and "sometimes." The family members are interested and concerned for each other.

(60) My folks insist that I spend most week-day evenings at home.

The mid-range spread of responses are indicative of a home neither over nor under controlled. The discipline is such that the family can live with and be happy.

School

Nine items concerning school and school activities are in the fifth group.

- (1) I like (liked) to take part in organized extra-curricular activities in the school.

The positive responses of "always," "usually," and "sometimes" show an appreciation for the many opportunities that schools currently offer. The responses also seem to indicate an outgoing person; a desire to become involved with others.

- (14) Courses in school are set up to meet the needs and interests of the student.

The "usually" and "sometimes" responses show some agreement with public criticism of the "lack of relevance" of the schools. The overall response to the schools continues to be favorable.

- (17) All young people should be required to take a course in driver education.

This item received the highest single response, 93 per cent "always." Police recruits evidently see the high school driving program as an important factor in combating the traffic problems. Their own participation in such a program was no doubt a favorable experience.

- (24) I have been tempted to cheat on tests at school.

Item 24 is another defensive measure item. A response of "never" would indicate an attempt to please the testing agency rather than an honest reply. The recruit responses were "sometimes" and "rarely."

(35) I am (was) popular with most of the kids in my class.

The responses of "usually" and "sometimes" would tend to re-enforce the recruit as a generally well adjusted individual.

(37) Teachers want to help students with their problems.

The role of the teacher is viewed favorable as are the schools. Probably few of the recruits had personal difficulties with teachers, responses were "always" and "usually."

(41) The school should have the right to question the way I drive.

The positive responses (always, usually) are in line with the favorable impressions schools have made on the group.

(45) I like most of my school work.

The favorable impact of the schools is shown again in the responses of "always" and "usually" to this item.

(53) My grades in school are (were) a good indication of my ability.

The responses were "usually," "sometimes," and "rarely" and do not lend themselves to interpretation. While the schools are viewed favorably, individuals see themselves as occasionally being improperly evaluated.

Police

The sixth group of questions concern the police role in traffic. These are of particular interest since the recruits are looking at their future roles.

(3) Policemen are sincere in enforcing the laws.

The recruits see policemen as sincere as shown by responses of "always" and "usually." This, no doubt, is a reflection of their

desire to become police. Any other response would tend to discredit themselves.

- (10) If I see a police officer when I am driving I am more careful.

The positive responses of "always" and "usually" show the police to be within the normal range of the general population. Perhaps the recruits are looking at themselves in their role as police. Item 10 is the last of the seven defensive measure items. A response of "never" or "rarely" would raise some doubts as to the honesty of the answers.

(21) The chief work of most policemen should be traffic control. The responses center on "rarely." Evidently the recruits see traffic control as only a small part of their total responsibility.

- (33) I am good at talking the police out of giving me a traffic ticket.

The responses range of "usually," "sometimes," and "rarely" are difficult to interpret. Possibly the police see themselves the same as the normal population.

- (36) Cops are rougher on teen-agers than on adults.

The "sometimes" "rarely" responses might indicate that police recruits see teen-agers only as a part of the total population, not as a separate group. This would be a favorable attitude for the recruits to take into their future work.

- (59) The police are only trying to do the job for which they are hired.

The responses of "always" and "usually" could be construed as a defensive response; "police work is a job." The total picture of the recruits seems to indicate something else; total involvement to the fullest extent of one's mental and physical capabilities.

Community

The seventh and final group consists of three items about the community. While group is small, they seem to be worthy of separate examination.

(5) My community is a happy place to live.

The positive responses centering on "usually" seems to indicate an individual well adjusted to the surrounding in which he finds himself.

(23) The people in my community want the traffic laws enforced.

The positive responses of "always," "usually," and "sometimes point to a community dedicated to good law enforcement in all areas.

(43) I am proud of my reputation in my community.

The strong image of a law abiding community seems to be indicated by responses of "always" and "usually."

Police Profile

A State Police Profile can be derived from the responses itemized above. The two characteristics that seem to stand out are a strong sense of personal worth and a stable home background. The responses to significant items such as No. 22 and No. 60 show a controlled, not overly permissive or overly authoritarian home. The "well adjusted" description carries over to the schools. An awareness of the value of schools is indicated in several of the items. The large number of significant items relating to traffic and driving show that the group has a knowledge and concern for the traffic related problems of our society. Other traits that seem to

be indicated by the response patterns are "outgoing" and "well adjusted." This is consistent with Kenel's study. His behavioral category No. 1 is:

Behavior characterized by well adjusted interaction with persons and consistent with the norms of the society in which the individual lives.

His categories No. 2 and No. 3 indicate small variations of withdrawal and aggression. Almost 90 per cent of police recruits fall into these three categories.

When compared with Mann and the categories developed early in his MAI studies, the findings are again consistent. Mann, using three categories, describes the over controlled as "poor self image," "over organized," "doesn't take chances." The under controlled were "overly aggressive," "acts on the spur of the moment," "frequently in trouble." The State Police recruits fall into the "average" category, indicating they are stable, well adjusted people.

The scoring of the MAI was accomplished using the original scoring scales. Since the range has had to be expanded in recent studies, this would indicate that police and police recruits tend to retain their stability in an unstable society.

Only one person gave four or more unacceptable responses to the seven defensive measure items. This would tend to validate the basic assumption that the responses are honest. In turn, the honesty of the recruits and officers could be inferred.

A description of the type of individual the MAI helps to select is:

A well-adjusted person with a strong, positive self image. He has good self control and is capable of seeing the

police role in a constantly changing society. He is capable of independent thought and action. He is a knowledgeable individual and has the wisdom to apply this knowledge. He relates well with others and has a deep concern for social problems.

He is indeed a "normal, well-adjusted person."

State Police Scoring Scale

As a part of the study, a frequency count and percentages were developed for each item on the MAI.

A scoring scale to include all the sixty-three items enabled the study to use the 80 per cent response level: that is, the responses given by 80 per cent or more of recruits and officers on each item were used as the acceptable responses. The individual being tested was given a choice of five responses on each item. Four of the items reached the 80 per cent level with a single response, forty-one items needed two responses, and eighteen items needed three responses. The complete scoring scale is shown in Appendix C.

A comparison of the State Police Scoring Scale with the original scoring scale shows thirty-three items answered exactly alike. Most shifts in the scoring scale were minor; for example, on Item No. 1, the original scoring indicated "usually" and "sometimes" as acceptable responses. The State Police Scoring Scale lists "always," "usually," and "sometimes" as acceptable. In no case was there a shift from one end of the response scale to the other. The basic assumption of "the MAI is a valid instrument for the testing of police recruits" would seem to be justified.

The mean score of the 238 State Police tested was 13.25. The standard deviation was 3.7. Since the group was a homogeneous one,

two standard deviations on either side of the mean was used to determine the acceptable scoring range of 6 to 21 on the total scores.

Consistency of Behavioral Categories

Kenel's study⁵⁸ established six categories of observable behavior that the MAI was helpful in identifying. These were as follows:

1. Behavior characterized by well-adjusted interaction with persons and consistent with the norms of the society in which the individual lives.
2. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic withdrawal from contact with people.
3. Behavior generally characterized by satisfactory interaction with persons and society, but with periodic efforts toward assertive action.
4. Behavior characterized by forceful, outgoing action or vigorous efforts to assert oneself over others.
5. Behavior characterized by withdrawal from contact with other persons.
6. Behavior characterized by a pendulum effect, vacillating between extremes of aggression and withdrawal.

The test of the 238 State Police and recruits were re-scored using the behavioral scores developed by Kenel. Each was placed in the category from 1 through 6 indicated by his scores. A total of 89.4 per cent of those tested fell into categories 1, 2, and 3. One group, the corporals and sergeants, placed 24 of 25 tested in groups 1, 2, and 3. These are the categories that seem to best describe the "normal, well-adjusted people" being sought for police recruits.

⁵⁸Kenel, op. cit., pp. 32-33.

Categories 4, 5, and 6 are not usually thought to be desirable for police work.

The MAI seems to be consistent in placing the tested police recruits and officers in the desirable categories. This suggests the possibility of using the MAI as a preliminary screening device. Elimination of the 10.6 per cent falling into categories 4, 5, and 6 early in the selection process might result in a saving of time, money, and effort.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate the feasibility of employing the Mann Attitude Inventory (MAI), a measure of attitudes and feelings, as a means of selecting police recruits. Completion of recruit training was used as a measure of success. The successful and unsuccessful recruit responses to the MAI were compared with each other, with promoted police officers, and the unsuccessful recruit responses were compared with their reasons for resigning.

The four hypotheses tested were:

- Ho₁: There is a significant relationship between the responses to the individual items of the MAI of recruits who complete recruit school and the responses of those who do not complete the school to the same items.
- Ho₂: There are significant differences in the responses on the individual items of the MAI of successful recruits when compared with the responses of police who have been promoted.
- Ho₃: There are significant differences in the responses on the individual items of the MAI of unsuccessful recruits when compared with the responses of police who have been promoted.
- Ho₄: There is a significant relationship between the reasons given by recruits when resigning and their responses to the individual items of the MAI.

Means and standard deviations of the total scores and sub-total scores of the MAI were computed. The chi square test of significance was used for testing individual items and the Sakoda Graph, shown in Figure 1, was used to determine the significance of the MAI.

Four additional tasks were performed. They were:

1. The reliability of the MAI was tested by comparing the responses of State Police recruits with the responses of Detroit Police recruits. Differences in recruiting policies and procedures are known to exist.
2. A profile of the attitudes and feelings of Michigan State Police recruits and officers was developed through an item analysis of the MAI.
3. A revised scoring scale for the MAI reflecting the responses of Michigan State Police officers and recruits was established.
4. The consistency of Kenel's behavioral categories for a selected police population was established.

The sample population for this study consisted of 171 police recruits and twenty-five corporals and sergeants. The group of 171 State Police recruits were tested the first or second day of training at the East Lansing, Michigan State Police Headquarters. The group of corporals and sergeants had returned to State Police Headquarters for leadership training. They were tested the first day of the school.

Two other groups of police recruits were tested and the results used in the additional tasks performed. Seventy-two Detroit Police recruits were tested during their third week of training at the Palmer Park, Detroit, Training Center. Another group of 42 State Police recruits were tested while attending Trooper School, having completed six months probationary field work. The response of this group was used to help compile the State Police Scoring Scale and the State Police Profile.

Conclusions

The following were conclusions based upon the findings from this study:

1. The MAI is not an effective instrument for differentiating between successful and unsuccessful Michigan State Police recruits. This may be due to the effectiveness of prior selection criteria. The indications are that the factors other than personality characteristics, as measured by the MAI, are of greater importance in influencing the resignations of recruits.
2. Experienced Michigan State Police officers, who have been promoted, differ somewhat in attitudes and feelings from successful recruits and to a greater extent from unsuccessful recruits.
3. The Michigan State Police recruits appear to be drawn from a different population than the recruits from a large municipal police department.
4. The Michigan State Police recruits appear to be well-adjusted individuals with strong feelings for a well-ordered society.
5. The State Police Profile, the State Police Scoring Scale, and classification into behavioral categories could prove useful in the selection of police recruits.

Recommendations for Further Research

1. The MAI could be used to test applicants for recruit school to determine if it can identify individuals who would be rejected by present selection methods.
2. A study, using the MAI, might be made of other law enforcement agencies including cities, towns, and county police to investigate the attitudes and feelings of the officers and the relationship between scores on the MAI and selection of police recruits.
3. A revision of the MAI to change some questions from the teenage orientation to an adult or police orientation. The changes should be checked by test construction experts and be given to similar groups and the results compared.

4. An in-depth study to be made of the reasons for resigning from recruit school and resignations of experienced officers. These reasons are probably quite complex and may include such things as family problems, recruit training activities, administrative policies, and attitudes of supervisory officers.

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APPENDICES

APPENDIX A

PERSONAL ATTITUDE SURVEY

NAME _____ AGE _____ SEX _____ MONTH'S DRIVING
EXPERIENCE _____

The following statements reflect your attitude and feelings about yourself and your relations to others. There are no right or wrong answers. Fill in on the answer sheet the answer that reflects your feelings the best.

Do not mark on the test booklet:

A. always B. usually C. sometimes D. rarely E. never

1. I like (liked) to take part in organized extra-curricular activities in school.
2. Young people are much better drivers than middle-aged people.
3. Policemen are sincere in enforcing the laws.
4. My parents are reasonable in their relations with me.
5. My community is a happy place to live.
6. I put off until tomorrow things I should do today.
7. I like to daydream while I am driving.
8. I feel full of pep when I get behind the wheel.
9. I live in a home that is happy.
10. If I see a police officer when I am driving I am more careful.
11. Over-careful drivers cause more accidents than the so-called reckless ones.
12. I enjoy being out late at night and sleeping mornings.
13. I get a feeling of real power when driving a car.
14. Courses in school are set up to meet the needs and interests of the student.
15. I am concerned about the way my clothes look.
16. Slow drivers should be kept off the highways.

17. All young people should be required to take a course in driver education.
18. Unsafe drivers should be deprived of the right to drive.
19. Accidents don't just happen; they are caused.
20. I like to get everything out of a car that it has in it.
21. The chief work of most policemen should be traffic control.
22. My parents exert too much control over me.
23. The people in my community want the traffic laws enforced.
24. I have been tempted to cheat on a test at school.
25. I get impatient when driving in heavy traffic.
26. There are times when it seems like everyone is against me.
27. Old, defective cars should be kept off the road.
28. Drivers should be given more freedom in obeying traffic signs.
29. People should drive when they are angry.
30. Passing on hills and curves is exceedingly dangerous.
31. It is necessary to stop at "stop" signs if no other cars are in sight.
32. I like to put extras on my car to attract attention.
33. I am good at talking the police out of giving me a traffic ticket.
34. Strong discipline in practice makes a better team.
35. I am (was) popular with most of the kids in my class.
36. Cops are rougher on teen-agers than on adults.
37. Teachers want to help students with their problems.
38. My father gets traffic tickets for moving violations.
39. I have as good table manners at home as when I eat out.
40. I have been wrong in an argument but wouldn't admit it to my opponent.
41. The school should have the right to question the way I drive.

42. I like to razz the team when it is losing.
43. I am proud of my reputation in the community.
44. I am considered a friendly person.
45. I like most of my school work.
46. Our family spends a great deal of time together.
47. Attitudes toward driving are more important than ability to handle the car.
48. I like to take chances when I'm driving.
49. Traffic laws are set up to promote safety.
50. Courtesy toward other drivers is important.
51. I like a great deal of freedom.
52. I don't mind being told what to do.
53. My grades in school are (were) a good indication of my ability.
54. I sometimes become concerned about what other people think of me.
55. I find that older people tend to be too bossy.
56. I feel somewhat nervous when I drive a car.
57. I think courtesy towards others is a good reflection of a person's character.
58. I get more fun out of driving a car than in any other activity.
59. The police are only trying to do the job for which they were hired.
60. My folks insist that I spend most week-day evenings at home.
61. I am considered a reliable person.
62. I like to help a person who is in trouble.
63. I am more courteous than the average driver.

How do you feel about answering these questions?
(Write on back of answer sheet)

APPENDIX B

Scoring Personal Attitude Survey

W. A. Mann, Ed.D.

In scoring the Survey the total number of points away from the right answer is the score. The correct answer for question one is either B or C. If the student marks either A or D, take one point off. If he marks E, take two points off. While you will probably wish to establish local norms a cutting score of 17 for boys and 16 for girls appears to be satisfactory. The higher the score the poorer the attitude will be. A class discussion of the questions, bringing out why each item was chosen, is of considerable value in helping young people to understand the relation between their personal reactions and their driving behavior.

Correct answers, determined by a survey of over 400 high school driver education students, are listed below. Answer sheets may be mimeographed. One copy with the incorrect answers punched out, can be used as a scoring stencil.

- | | | |
|-----------------|-----------------|-----------------|
| 1. B and C | 22. C and D | 43. A and B |
| 2. C | 23. A and B | 44. A and B |
| 3. A and B | 24. C and D. | 45. A and B |
| 4. A and B | 25. C and D | 46. A, B, and C |
| 5. A and B | 26. C and D | 47. A and B |
| 6. C | 27. A and B | 48. D and E |
| 7. D and E | 28. E | 49. A and B |
| 8. C and D | 29. E | 50. A |
| 9. A and B | 30. A | 51. C |
| 10. A and B | 31. A and B | 52. B and C |
| 11. C and D | 32. C, D, and E | 53. A and B |
| 12. B and C | 33. D and E | 54. B and C |
| 13. C, D, and E | 34. A and B | 55. C and D |
| 14. A and B | 35. B and C | 56. D and E |
| 15. A and B | 36. C, D, and E | 57. A and B |
| 16. C and D | 37. A and B | 58. C and D |
| 17. A and B | 38. D and E | 59. A and B |
| 18. A and B | 39. B, C, and D | 60. B |
| 19. A and B | 40. C and D | 61. A and B |
| 20. C, D, and E | 41. A and B | 62. A and B |
| 21. B and C | 42. E | 63. B |

Over controlled - 9 or more

Counters (punch in scoring stencil)

1. C, D, E	poor self image	40. E
3. A	overly organized	42. D
9. A	doesn't take chances	43. B
11. D		44. C
16. D		47. C, D, E
18. A		48. E
24. D, E,		50. A
29. E		54. A
33. E		56. A, B

Under controlled - 9 or more

1. C, D, E	overly aggressive	40. C
3. B, C, D, E	does things on spur	42. A, B, C
9. B	of moment	43. C, D, E
11. C	frequently in trouble	44. C
16. A, B		47. C, D, E
18. C, D, E		48. A, B, C, D
24. A		50. B, C, D, E
29. D		54. C
33. A, B, C, D		56. E

Validity Measures - 50 or more

- 6. D, E
- 10. D, C
- 15. E
- 24. E
- 39. A, B
- 40. E
- 54. D, E

Emotionally Disturbed

High on both over and under controlled. Tend to be over controlled but will break out on occasion.

APPENDIX C

State Police Scoring Scale

1. A, B, C	22. C, D	43. A, B
2. B, C	23. A, B, C	44. A, B
3. A, B	24. C, D	45. A, B
4. A, B	25. B, C, D	46. A, B, C
5. A, B	26. C, D, E	47. B, C
6. C, D	27. A, B	48. D, E
7. C, D	28. D, E	49. A, B
8. B, C, D	29. D, E	50. A
9. A, B	30. A	51. B, C
10. A, B	31. A	52. B, C
11. C, D	32. D, E	53. B, C, D
12. B, C, D	33. B, C, D	54. A, B, C
13. D, E	34. A, B	55. C, D
14. B, C	35. B, C	56. D, E
15. A, B	36. C, D	57. A, B
16. B, C, D	37. A, B	58. C, D, E
17. A	38. D, E	59. A, B
18. A, B	39. A, B, C	60. B, C, D
19. A, B	40. C, D	61. A, B
20. C, D, E	41. A, B, C	62. A, B
21. B, C, D	42. C, D, E	63. C, D

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